PHENOMENOLOGICAL APPROACH TO BODILY EXPERIENCES: CAMERA OPERATING AS SKILLED PRACTICE

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ABSTRACT

PHENOMENOLOGICAL APPROACH TO BODILY EXPERIENCES: CAMERA OPERATING AS SKILLED PRACTICE

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This thesis investigates the nature of camera operating practice in multicamera systems from camera operators' perspectives. To do this, this study consults phenomenology and postphenomenology as theoretical stances. With phenomenological approach, this thesis examines camera operating practice as a technique of the body and accordingly skilled practice which involves skill and expertise.

In this regard, this thesis conducts two staged field study which are autoethnography and ethnography. Autoethnography helps me to collect my instantaneous camera operating experiences with my interpretations, opinions, and feelings. This stage is followed by the ethnographic study involving semi-structured in-depth interviews, participant observations and post-observation interviews. Ethnographic study helps me to gather my colleagues' narrations on camera operating practice and their lived bodily experiences of camera operating.

According to the field studies, camera operating practice from phenomenological perspective unfolds in embodiment layers which are embodiment in the system, embodiment with the equipment, and embodiment with the picture. These inter-

related and inter-dependent embodiment layers are exposed to be interrupted. In case of interruptions, the camera person looks for regaining the embodiment. Both in sustaining and in re-gaining the embodiment process, camera operator employes her skilled practice to generate the intended picture and to immerse herself into the flow experience.

As an embodied flow experience, camera operating passes beyond singular manipulation of a product and gains a complex nature. In this regard, complex camera operating is also skilled, co-generative, collective and situated, sociocultural and sociopolitical, and mediated. As presenting this extraordinary nature of the camera operating practice, this thesis proposes a complex operating model and promises implications for theory, methodology and design practice.

Keywords: Phenomenology, Embodiment, Camera Operating

ÖZ

BEDENSEL DENEYİMLERE FENOMENOLOJİK YAKLAŞIM: BECERİ İÇEREN BİR PRATİK OLARAK KAMERA KULLANIMI

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Bu tez çalışmasında çoklu kamera sistemlerinde kamera kullanımı pratiği kamera operatörlerinin perspektifinden incelendi. Kuramsal olarak fenomenoloji ve postfenomenolojiye dayanan bu çalışma, fenomenolojik yaklaşımla beraber kamera kullanımı pratiğini bir beden tekniği ve buna bağlı olarak beceri ve uzmanlık içeren bir pratik olarak ele alır.

Bu bağlamda, bu tez çalışmasında otoetnografi ve etnografi içeren iki aşamalı bir saha çalışması uygulandı. Otoetnografik çalışmada ben kendim bir kamera kullanıcısı olarak, kendi anlık kamera kullanımı deneyimlerimi ve bu deneyimlerle ilgili yorumlarımı, duygularımı ve fikirlerimi ele aldım. Bu aşamadan sonra uygulanan etnografik çalışma içerisinde yer alan yarı yapılandırılmış derinlemesine görüşmeler, katılımcı gözlemler ve gözlem sonrası görüşmelerle de iş arkadaşlarımın kamera kullanımı pratiği üzerine olan anlatımlarını ve onların kamera kullanımı deneyimlerini inceledim.

Saha çalışmalarına göre, fenomenolojik perspektifle ele alınan kamera kullanımı pratiği, sistem içerisinde bedenleşme, ekipmanla bedenleşme ve resimle -görsel imajla- bedenleşmeyi de içeren bedenleşme katmanları şeklinde kendini gösterir. Bu

birbiriyle ilişkili ve birbirine bağlı bedenleşme süreçlerinde zaman zaman kopmalar olabilir. Bu anlarda kamera operatörü yeniden bedenleşme arayışına girer. Kamera operatörü gerek bedenleşme süreçlerinin devam etmesinde gerekse yeniden bedenleşme sürecinde problemlerle başa çıkarken beceri ve uzmanlığına dayanarak amaçladığı görsel imajı üretir ve akış deneyiminin içine dalar.

Bedenleşen bir akış deneyimi olarak kamera kullanımı pratiği, tek bir ürünün bireysel manipülasyonunun ötesine geçer ve kompleks bir yapı kazanır. Bu bağlamda kompleks kamera kullanımı aynı zamanda beceri içeren, birlikte-üretici, müşterek, yerleşik, sosyokültürel ve sosyopolitik ve aracılıklı bir pratiktir. Kamera kullanım pratiğinin sıra dışı bir doğası olduğunu ortaya koyan bu tez çalışması, bir kompleks operasyon modeli ile beraber kuram, metodoloji ve tasarım pratiğine dair çıkarımlar sunar.

Anahtar Kelimeler: Fenomenoloji, Bedenleşme, Kamera Kullanımı

To my family: Ahmet, Hatice, Zeyneb, Feyza and Salih

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I also want to thank my friends, who experienced this thesis research and writing process with me. I am grateful to them for their patience for the moments that I was continuously mentioning my thesis. Here, I should add special thanks to Sevcan, for her endless friendship and kind guidance during my writing process. Without her advice and comments, I could not have completed this thesis in the same way. Besides, I want to express my warm gratitude to dear Meryem and Ülkü Betül who have always motivated me when I felt tired and discouraged during the process.

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TABLE OF CONTENTS

ABSTRACT v

ÖZ vii

ACKNOWLEDGMENTS x

TABLE OF CONTENTS xii

LIST OF TABLES xvii

LIST OF FIGURES xviii

LIST OF ABBREVIATIONS xx

CHAPTERS

1 INTRODUCTION 1

1.1 Research Approach and Opportunity 2

1.2 Scope of the Thesis 12

1.3 Research Questions and Aim of the Thesis 14

1.4 Structure of the Thesis 16

2 THEORETICAL FRAMEWORK 17

2.1 Phenomenology 17

2.1.1 Husserl and the Lifeworld 19

2.1.2 Merleau-Ponty and Embodiment 24

2.1.3 Heidegger, Being-in-the World, and Dasein 29

2.2 Postphenomenology 35

2.3 Techniques of the Body 40

2.3.1 Skill 43

2.3.2 Tacit Knowledge 46
2.3.3 Expertise 49
2.4 Exchanges Between Phenomenology and Techniques of the Body 51
2.5 Summary of the Chapter 56
3 EMBODIMENT AND TECHNIQUES OF THE BODY IN DESIGN LITERATURE 59
3.1 Traces of Phenomenological Understanding and Embodiment in Design 59
3.2 Investigations on Techniques of the Body and Skilled Practice in Design 80
3.3 Summary of the Chapter 85
4 DEEP DIVING INTO THE CAMERA OPERATING PRACTICE 89
4.1 Equipment which is involved in Field Study 93
4.1.1 Camera and Its Parts 94
4.1.2 Camera Supporting Systems 99
4.1.2.1 Handheld Camera Operating 100
4.1.2.2 Pedestal and Tripod 101
4.1.2.3 Jib arm/ Jimmy Jib 103
4.1.2.4 Steadicam 108
4.2 Operations 112
4.2.1 Camera Positioning and Framing 112
4.2.2 Camera Movements 115
4.2.2.1 Optical Movements 116
4.2.2.2 Mechanical Movements 117
4.3 The People 119
4.3.1 Camera Operator and Camera Crew 120

4.3.2 Other Broadcasting Crew 122
4.4 The Environment 125
4.4.1 Studio and Locations 126
4.4.1.1 Studio Shootings 126
4.4.1.2 On Location Shootings 127
4.4.2 Program Context 128
4.4.2.1 News and Talk Shows 128
4.4.2.2 Music and Entertainment Programs 130
4.4.2.3 Sports Events 132
4.5 Summary of the Chapter 135
5 METHODOLOGY, FIELD STUDY AND THEMATIC ANALYSIS 137
5.1 Research Approach and Research Design 137
5.1.1 Stage 1- Autoethnography 145
5.1.1.1 Conduct of Autoethnography 147
5.1.1.2 Analysis of Autoethnography 150
5.1.2 Stage 2- Ethnography 160
5.1.2.1 Conduct of Ethnography Part 1- Semi-structured In-depth Interviews 168
5.1.2.2 Conduct of Ethnography Part 2- Participant Observations and Post-observation Interviews 171
5.1.2.3 Analysis of Ethnography 178
5.2 Summary of The Chapter 186
6 FINDINGS: CAMERA OPERATING PRACTICE FROM A PHENOMENOLOGICAL PERSPECTIVE 189
6.1 Embodiment in the System 194
6.1.1 The Corporate Context 195
6.1.2 The Interpersonal Being 198

6.1.3 The Occupational Environment 206
6.2 Embodiment with the Equipment 213
6.2.1 The Equipment Itself 214
6.2.2 Equipment Transparency 216
6.2.3 Transparency of the User 223
6.3 Embodiment with a Goal: “The Picture” 228
6.4 Embodiment and Skilled Practitioner 244
6.4.1 Becoming a Camera Person 244
6.4.2 Situational Awareness 252
6.5 Interruptions of Embodiment and Re-Embodiment 262
6.5.1 Interruptions 263
6.5.2 Re-Embodiment Through Situational Awareness 273
6.6 Summary of The Chapter 277
7 CONCLUSION 281
7.1 Revisiting Research Question 281
7.1.1 Camera Operating Practice Involves Technique of the Body and Skilled Practice 283
7.1.2 Camera Operating Practice Involves Co-Generative Aspects 284
7.1.3 Camera Operating Practice Involves Sociocultural and Sociopolitical Use 286
7.1.4 Camera Operating Practice Involves Mediations 290
7.1.5 Camera Operating Practice Involves Flow Experience 294
7.2 Contributions of the Study: Towards Modelling the Complex Camera Operating 296
7.3 Implications of the Study 304

7.3.1 Methodological Insights of Autoethnography 304
7.3.2 Implications for Design Literature 306
7.3.3 Implications for Camera Operating Literature 307
7.4 Limitations and Further Studies 307
REFERENCES 311
APPENDICES
A. In-depth Interview Questions and Flow 331
B. AEIOU Observation Sheet 333
C. Field Study Quotes in the Original Language 335
CURRICULUM VITAE 355

LIST OF TABLES

TABLES

Table 5.1 Research Design..... 144
Table 5.2 The themes of autoethnographic study 158
Table 5.3 Stage 2-Ethnographic Study 164
Table 6.1 The process of finalizing the themes 190
Table 6.2 Finalized Themes..... 190

LIST OF FIGURES

FIGURES

Figure 4.1 Basic floorplan and camera positions in Arı Studio, Ankara.....91
Figure 4.2 Floorplan and camera positions for 34th European Championships in Men's Artistic Gymnastics (Image: TRT).....92
Figure 4.3 A camera unit of multicamera system in a football match (Photo: Ferhat Eryılmaz).....93
Figure 4.4 A zoom lens with zoom, focus and aperture wheels on it (Photo: Ferhat Eryılmaz).....95
Figure 4.5 Viewfinder and its adjustment buttons of a camera on tripod (Photo: Ferhat Eryılmaz).....96
Figure 4.6 Control panel on camera body (Photo: Ferhat Eryılmaz).....97
Figure 4.7 Head with pan and tilt locks (Photo: Ferhat Eryılmaz).....99
Figure 4.8 Studio camera on pedestal (Photo: Researcher).....102
Figure 4.9 Camera on jib arm (Photo: Researcher).....104
Figure 4.10 Zoom and joystick handles on jib arm (Photo: Researcher).....105
Figure 4.11 Monitors on jib arm (Photo: Researcher).....106
Figure 4.12 Four-wheeled jimmy jib (Photo: Researcher).....107
Figure 4.13 Wireless Steadicam and the operator (Photo: Buğra Gökçe).....109
Figure 4.14 Standard shot sizes (Ward, 2001, p. 157).....114
Figure 4.15 Mechanical camera movements on pedestal (Ward, 2001, p. 77).....118
Figure 4.16 Broadcasting crew in regie room (Ward, 2001, p. 41).....125
Figure 4.17 News and talk show set at TRT studios (Photo: Researcher).....130
Figure 4.18 Camera in a football game (Photo: Ferhat Eryılmaz).....133
Figure 4.19 Setting up a camera in a difficult position during a football game (Photo: Nazif Akalın).....134
Figure 5.1 1st cycle coding during autoethnographic study.....152
Figure 5.2 Quotations under the code of 'Failing anticipation' from autoethnographic study.....154

Figure 5.3 Themes and codes in autoetnographic study (Data visualisation: Researcher & N. Cemelelioğlu) 156
Figure 5.4 Number of coding in each autoethnographic theme 157
Figure 5.5 First cycle coding samples with provisional codes 181
Figure 5.6 Second cycle coding sample 181
Figure 5.7 The evolution of code ‘composition/frame’ 182
Figure 5.8 Themes and codes in ethnographic study (Data Visualisation: N. Cemelelioğlu) 183
Figure 5.9 Number of coding in each ethnographic theme 185
Figure 6.1 Camera person within embodiment layers 278
Figure 7.1 The interdependant actants of camera operating practice 282
Figure 7.2 The mediations through the picture (Figure: Researcher, S. Yardım & N. Cemelelioğlu). 293
Figure 7.3 The model of complex camera operating (Figure: Researcher & N. Cemelelioğlu) 298
Figure 7.4 The embodied and skilled flow of a camera person, and picture mediated feedback among interdependant actants 300
Figure 7.5 Generalized model of complex operating generated from the complex camera operating model (Figure: Researcher & N. Cemelelioğlu) 302

LIST OF ABBREVIATIONS

ABBREVIATIONS

Turkish Radio and Television Corporation (TRT)

Human-Computer Interaction (HCI)

Science and Technology Studies (STS)

Tangible User Interfaces (TUI)

Tangible, Embedded and Embodied Interaction (TEI)

Co-embodied Technology (CET)

Camera Control Unit (CCU)

Charge-Coupled Device (CCD)

Close-up (CU)

Medium Shot (MS)

Long Shot (LS)

Wide Shot (WS)

Director of Photography (DoP)

Video-tape recorder (VTR)

Activities, Environments, Interactions, Objects, User (AEIOU)

CHAPTER 1

INTRODUCTION

I, as the researcher and the author of this PhD thesis, have worked as a camera operator between 2009-2022 in multicamera systems at Turkish Radio and Television Corporation (TRT). I have worked in many crews, in very different places, in various conditions and in numerous program contexts. During this occupational experience, I have operated different types of cameras and camera supporting systems in different camera positions requiring different bodily movements, interactions, and experiences. All these bodily practices happen with the camera, through the camera or around the camera. Thus, I and camera relate each other, which positions me somewhere beyond user and camera somewhere apart from mere product. This relation is also inseparable from the context that the camera operating takes place. This whole story consequently elevates the regular and familiar user-product interaction to an intertwined situation. While this process happens, I, as the operator, add my personal resource and qualifications to the experience.

Besides have worked as a camera person, I am a design researcher who has received design degrees in the background. I am familiar with design processes and theories that design research has been nourished from. User-product interactions and user experiences occupy an important place in design research, in which various studies have been conducted and presented within the academy for years. Thus, I am aware of the human subject in design studies while creating user scenarios. Schumacher (2010) indicates, user research in design studies is proposed to design better products, as devoting designers' knowledge and understanding on human behavior towards improving the performance of the practice. Forlizzi and Battarbee (2004) classify these attempts for understanding the experience that is produced through

human-product interactions in three ways, which are product-centered, user-centered, and interaction-centered. This situation shows that there are perspectives in design studies that observe the user, the product, and the interactions between them. In this thesis, in addition to the investigations of better interactions and experiences, I really wonder the pure nature of the experience itself. To understand this nature, I attempt to slightly change my designer perspective and try to see the practice from inside out, instead of just observing the relations outside. This perspective leads me to see the relations as a holistic universe without naming the user, the product, and the interaction separately. I focus on the process rather than the entities as subject and object, while taking all the contextual relations into consideration. I personally position myself next to this relationality perspective through which I can try to understand my camera operating practice instead of measuring and evaluating it.

Following this personal situation and occupational experience, I have developed a holistic perspective for my bodily skilled practices while operating the camera. I am interested in the relationalities happening in the camera operating process from the operator's perspective, which leads me to hold the phenomenological approach while researching the relation between me, the camera, and the world.

1.1 Research Approach and Opportunity

Husserl (1900/2001) leaves us a vast and very powerful suggestion, even a necessity to understand the world; "We must go back to the things themselves" (p. 168) in his outstanding work 'Logical Investigations'. He believes, only abstract words are not enough for us to perceive and understand the world, we also need to search for the performance of the word, we need to seek for the evidence of the abstraction, we need to fledge our instincts. Therefore, our relation to the world happens and can be understood through our relations to the things. With this point of view, Husserl (1931/1960) in '*Cartesian Mediations*', makes a move to stand against the Cartesian dualism of ideas and materials, even though his early writings do not clearly cross

out the Cartesian point of view, they just transform it. However, following phenomenologists who are Maurice Merleau-Ponty and Martin Heidegger frankly wrote from an anti-Cartesian perspective. For example, Merleau-Ponty (cited in Romdenh-Romluc, 2012) does not see the body as a separate object and connects it with the consciousness, while Heidegger (cited in Dastur, 2012) presents human as being-in-the-world who understands the world and being together, not distinct objects.

On the other hand, according to Cartesian dualism, human mind and human body are accepted as different realms. According to Kim (2018), mind-body dualism was developed by Descartes' separation of mental and material substances which accepts them as different kinds. As Brooke (2018) states, Descartes puts human body in the outer world, in which the body can function according to the natural sciences, while he accepts human mind as the area of pure ideation which is far from the outer material world. In a further manner, Descartes (cited in Dilman, 1993) accepts that he does not need a body for his being: "he cannot doubt is his own disembodied existence while he is thinking" (p. 1). However, there has been criticism against Cartesian dualism by other philosophers. As Dilman (1993) mentions, for example, according to Wittgenstein our thoughts need a common understanding of an interpersonal engagement as well as an action of life that exhibits our physicality. In addition, Dilman cites from Wittgenstein that, thought or what Descartes accepts as 'inner', needs an outer behavior. Our thoughts are not inevitably hidden from other people, we can only learn how to hide them. Dilman (1993) also continues with Heidegger, who refutes Cartesian dualism through his *Dasein.* As Dilman cites, according to Heidegger, Dasein as 'being there' have responses to what is happening around. "His very responses embody an awareness of how he takes them" (p. 21).

As Brooke (2018) mentions, Descartes accepts that we do not experience the world, the world is there under the rules of natural sciences, and we can only produce the meaning through mental elements. In this sense, Cartesian dualism would approach camera operating practice from a perspective which does not give a weight on the bodily experiences. However, camera operating practice happens through

experiences and interactions of the camera operator in her environment. Thus, the approach of Cartesian dualism would not fit my aim in this research that is to explain the nature of the practice from the camera operators' perspectives as they perform their bodily experiences related to the shooting context. In this sense, phenomenological understanding provides an opportunity for examining human being as a unity. As Brooke (2018) claims, phenomenology as bracketing the categories of mind and body initially, describes the unity of human existence as being-in-the-world, then it explores this existence in various dimensions.

In case of this PhD thesis, I hold the above-mentioned phenomenological approach to gather and to maintain a deep understanding of camera operating process through understanding myself and my colleagues, the camera, and the environment as the entirety. Phenomenology, as the philosophical movement and method, has been brought to the area by the lead of Husserl, then followed by many thinkers and scholars as it has been developed and expanded. In addition to Edmund Husserl, Maurice Merleau-Ponty and Martin Heidegger are other considerable philosophers who affect this thesis study through their perspectives and writings. All these three people put an effort to discuss on our beings and the world through phenomenological understandings, which influenced me as I examine my being as a camera operator and my context as the basis of my interactions with the things.

Throughout this thesis study, several significant concepts in phenomenological discussions become prominent for me while trying to understand the nature of human-artifact relations. The environment in which human being lives is called as *Lifeworld* by Edmund Husserl (1936/1970) and described as being constantly shaped by continuous interactions and relationships between itself and human being. Merleau-Ponty (1948/2004) states, human being is a "mind with a body" (p.56) in this Lifeworld and those constant relationships that happen reciprocally between human and all other things, are the resources for the knowledge of the world. He (1945/2002) further claims, these objects in Lifeworld are the sum of knowledge to be gained and value to be bodily experienced; so, they create their own meanings through embodied experiences. Heidegger (cited in Luft & Overgaard, 2012) calls

this state of embodied being-in-the-world as *Dasein,* in which human being both asks the meaning of being and understands that meaning. In addition to these significant concepts that I have shaped my study around, *intentionality* which means all mental and bodily consciousness of human being is always 'of' or 'about' something (Luft and Overgaard, 2012), also plays a crucial role to understand the embodied being and her relations with the artifacts.

Following phenomenology, post-phenomenology develops itself on the phenomenological concepts as it tries to explain the human-tool-world relation from a mediation perspective. Peter-Paul Verbeek (2005), Dutch philosopher, criticizes classical phenomenological understanding of Heidegger in which technology dominates us and the world, and makes human alienated from the reality. He also disapproves the attempt of phenomenology to reach a universal reality; because the notions of locality and context-dependence play crucial roles in access to reality, according to which this access is mediated instead of direct. Don Ihde (1990), American philosopher, classifies this technical mediation into different relation clusters namely embodied interactions, hermeneutic relations, alterity relations and background relations. He formulates each relation with the combinations of I, Technology and World. These classifications may make human-technology-world relation more understandable, however it jars the holistic approach of phenomenology, even ignoring the affectional aspect of it. In the scope of this thesis, I examine embodiment as a holistic process with all interactions happening in Lifeworld, instead of categorizing these interactions and destructing the process of bodily experience. Despite all, post-phenomenology brings an important expansion for this thesis by promoting technological mediation and elevating the bodily experiences as mediated interactions.

Considering the brief introduction of phenomenology above, this thesis holds a holistic perspective while researching bodily experiences of human beings as they relate to artifacts in their Lifeworld. This perspective has a potential to raise a different approach to human-artifact interaction by drafting techniques of the body into the play. Marcel Mauss (1935/1973), French sociologist, approaches bodily

experiences as techniques of the body and describes them as the knowledge of people in different cultures on how to use their bodies while executing their specific tasks. Apparently, this concept has strong bonds with the human-artifact relations as humans are considered artifact users while performing these tasks. People, in their daily or professional lives, are surrounded by artifacts; and they consciously or unconsciously bodily interact with these artifacts to continue their works. Thus, techniques of the body deepen this human-artifact relation and helps us to ponder the countless possibilities of this relation when human body is taken into consideration. Mauss (1935/1973) also claims, techniques of the body are transferred from one person to the other through imitation and adoption of the movement and Tim Ingold (2011), British anthropologist and an influencer on phenomenological anthropology, mentions that these techniques are remembered by human body through embodied skilled practices. Ingold, by bringing up the embodied practice, attempts to intersect phenomenology and techniques of the body, which inspires this thesis study while looking into embodied practices through the lenses of techniques of the body. Ingold (2000) in '*Perception of Environment'*, as mentioning Marcel Mauss, indicates the term of techniques of the body by claiming that a technique cannot be separated from the subject who skillfully performs it. Technique is embedded in the human body with all experiences she has been through, and it is exhibited while the practitioner finds her way in the world. So, human is a skilled practitioner who employs her body techniques for very basically living. In '*Being Alive*', Ingold (2011) clearly asserts, all subjects -human or nonhuman- skillfully interact in their environments, and their attentions and reactions are embodied through their performances. Thus, Ingold exhibits the bond between skilled body techniques and embodiment of phenomenological inquiry.

Besides, impressed by Ingold, Sarah Pink, design anthropologist, has some research in which she touches embodiment and skilled practice together. Even though she is mainly interested in visual anthropology and ethnography, she mentions embodied and skilled practices in her articles. For example, she tries to understand a specific skilled performance -bullfighting- through embodiment and emplacement while

focusing on the environment in which the interactions happen (Pink, 2011a), or she mentions and proposes new ways of research in anthropological discipline in order to better understand embodied skilled practices (Pink, 2011b).

In addition to Ingold and Pink, Nick Crossley, British sociology professor, is one of the leading scholars who try to relate phenomenological perspective and body techniques in his writings. Crossley (1995, 2005, 2007, 2015) uses the term of 'body techniques' as referring 'techniques of the body'. Therefore, as both terms are seen in the literature, I use these terms interchangeable in this thesis. Crossley (1995, 2007), for instance, researches the relation between body techniques and embodiment processes by referring Merleau-Ponty as the developer of the term 'body techniques'. Besides, Crossley (2015) investigates the embodied skilled practice of music players to understand the role of body techniques in music worlds. In addition, in one of his articles, he explores the reflexive body techniques as embodied bodily activities (Crossley, 2005). Consequently, reading his works has encouraged me to study further and deeper at the intersection of phenomenology and techniques of the body, and to bring the camera operating up in the discussion to be explored. Because, although there have been some attempts that stands at the intersection of techniques of the body and embodiment, they have omitted the technique of camera operating. They exhibit different case studies in such as martial arts (Spencer, 2009), fitness (Parviainen & Aromaa, 2017; Parviainen, 2018), sailing (Andersson et al., 2015), windsurfing (Dant & Wheaton, 2007), rolfing (Engel, 2008), painting (Liu, 2015), performing arts (Bassetti, 2014), yoga (Ylönen, 2012; Humberstone & Cutler-Riddick, 2015), swimming (McNarry et al., 2021), pottery making (Melko, 2017), craft making as skilled practice (Fisher & Botticello, 2018; Marchand, 2010), fashion and catwalking (Hesselbein, 2021) or emergency medicine (Trasmundi, 2019). Thus, since I have not encountered the studies bringing camera operating into the focus, I realize in the literature there is the opportunity to examine this intersection area further. Camera operating is a multilayered and multi-connected process (see Chapter 4) which makes it interesting to be revealed in terms of the connections of skilled practice and embodiment moments.

Under the umbrella of techniques of the body, this study also relies on other concepts which are tacit knowledge, muscle memory and expertise on a task. Csepregi (2006) states, in daily routines, sometimes human bodies react to the circumstances in the most appropriate ways benefiting from the knowledge stored in their muscles without going a very deep cognitive process. Hooper (2015) indicates, persons become more reliant on their spontaneous bodily knowledge as they gain expertise on the task. For example, during the process of camera operating, I as the operator move my body and perform my movements -intermingled with the camera and the context around me- someway to receive the intended visual image in a limited time. While experiencing this operation, my expertise helps me to accelerate the thinking process and lets my body show the fastest responses to the challenged situation. This possible and inevitable merge of my embodied being and my techniques of the body offers a great opportunity to be explored in many ways in this underexamined research area.

Moreover, phenomenology and more specifically the term of embodiment have been studied in many disciplines for years. Starting with interaction design and wandering around product design, embodiment has been a research area in design studies (see Chapter 3), and we encounter many studies taking phenomenology as a method or classifying the current approaches (Dourish, 2001; Gunkel, 2018; Vardouli, 2015; Van Rompay et al., 2004; Van Rompay & Ludden, 2015) or considering embodiment as a strategy to create design frameworks (Van Dijk & Hummels, 2017; Hornecker, 2006; Jensen, 2005; Schiphorst, 2009; Ward, 2013; Stienstra et al., 2015; Hummels & Levy, 2013; Klemmer et al., 2006; Hansen & Morrison, 2014; Wilde et al., 2017; McKinney et al., 2008). In addition to these sources, El-Zanfaly (2015) interestingly mentions design itself as embodied action. Apart from El-Zanfaly's perspective, starting point of the other studies seems to create better designs as they look through design perspectives by applying phenomenology. In this thesis study, aim is not to combine design and phenomenology, I aim to investigate, understand, and narrate both of them from each other's perspectives. Instead of presenting the possibilities of applying phenomenology in design practice, I wish to understand the nature of

embodiment through the process of camera operating and vice versa. Thus, I wish to position myself as a fellow of phenomenology as I already have positioned myself as a design researcher and a camera operator.

Although design studies are familiar with the concept of phenomenology and embodiment, they less frequently encounter with techniques of the body. Considering the scope of this thesis study, the notion of techniques of the body has been examined as a phenomenon while researching habituation of activities and its relations to technology interaction (Nansen et al., 2013, 2014; Nansen & Wilken, 2019). Besides, skilled practice, a very related concept to techniques of the body, has been researched in digital designs based on skilled movements (Ward, 2013). Skilled practice has also raised some interest in understandably closer to craft making (Baber, 2018; Wood et al., 2009; Mann, 2018, Taşdizen, 2017). In addition, design activity itself has been seen as a skilled practice and examined from this perspective (Hasenhütl, 2020; El-Zanfaly, 2015).

The term of techniques of the body creates a rich opportunity to be explored in design studies. However, since techniques of the body has been examined by some anthropologists such as Tim Ingold, the most related theoretical area which combines design and body techniques -accordingly skilled practices- becomes anthropology, especially design anthropology (Gunn and Donovan (Eds.), 2012; Lyu, 2017). Under design anthropology, the term of 'body techniques' finds smaller place for itself while the term of 'skill' is more popular. In addition to design anthropology, techniques and technical mediations are discussed in Science and Technology Studies (STS). Bruno Latour, French sociologist and anthropologist devotes his research attempts on technical mediation (Latour, 1994) and proposes actor network theory to explain human-nonhuman relations. He uses the term of technique in a slightly different version and refers 'technical means' while Mauss emphasizes the use of body. Here, I will not mention design anthropology and STS studies in detail because they are not in the scope of this thesis study. But briefly speaking, design anthropology is interested in combining two areas -design and anthropology- through ethnographic methodologies (Gunn et al. (Eds.), 2013; Miller, 2018).

Moreover, STS as an interdisciplinary study arena, in which design disciplines are welcomed, challenges the routine acceptance of scientific and technological change, and the reactions to that acceptance (Cutcliffe & Mitcham, 2001). Thus, both design anthropology and STS studies are vast areas in which techniques of the body and skilled practices have been touched. Consequently, the relation of skilled practice or techniques of the body to the design offers an area to be further explored. This suggests a great opportunity to discover the possible combinations of these two theoretical paths as an advantageous approach to human-artifact relation. This thesis study aims and hopes to create a theoretical inquiry in this area and to open possible research windows for further investigations which are interested in studying techniques of the body and skilled practices under design studies.

Besides studied under design fields, phenomenology has been also paid attention in communication studies. However, the perspective of communication studies promotes the embodiment process created by the visual image or embodiment of the image created on the screen (Sobchack, 1992; 2004; Marks, 2000). Therefore, bodily experiences of camera operator and her embodiment process under various parameters have an opportunity to be explored further in communication studies.

In addition, in communication studies, the nature of 'camera operating' as the main issue of this thesis study, has been examined from very descriptive point of view in camera operator's manuals or handbook (Millerson & Owens, 2008; Ward 2001; Elkins, 2009; Musburger, 2005), or from a storytelling perspective by consulting biographies or autobiographies (Goldovskaya, 2006). Some readings and critics on Dziga Vertov's 'Man with the Movie Camera (1929)' mention the camera person as the image creator and relate the camera person's decisions to the final image (Turvey, 1999; Crofts & Rose, 1977; Delgado, 2009). Even though we encounter with the camera operator in these articles, the focus is still on the visual image. The literature of observational cinema in visual anthropology (Grimshaw & Ravetz (Eds.), 2005; Grimshaw & Ravetz, 2009; 2015) does not shift the focus but at least pays much more attention on camera people's side.

Observational cinema uses film-making techniques to create ethnographic data while paying attention to the bodily experiences and decisions of camera operators. The scholars even touch phenomenology and the concept of embodiment while mentioning the image creators -the camera people-. However, the relationship between phenomenology and camera operating in observational cinema is unfortunately missing. Apparently, in the above-mentioned literature review in communication studies, the role of camera operator and the embodiment process of her whole body and mind have not been investigated in detail. Michael Albright (2011), American cinematographer, has made some attempts by still focusing on cinematographic embodiment but engaging it with the bodily movements of camera operator while using hand-held cameras (see the Visible Camera). Even though, this thesis does not base on phenomenology in communication studies as a theoretical framework, it aims to underline the underexamined area of bodily experiences of camera operator and the phenomenological approach from the side of camera operator in communication studies. With the help of this thesis, phenomenological approach in communication studies may elevate its inquiries from image embodiment to more holistic level, may include camera operator as the image creator, and may pay attention to her embodiment processes. Thus, communication studies may examine camera operating process as an input of image and message creation which may reflect on the audiences' perception through generated pictures.

In brief, this thesis points out the potentials in the literature to be researched in detail in an interdisciplinary way. The relation of phenomenology and techniques of the body in design disciplines forms the main attention of this study, as it tries to understand the possible intersections between both areas and interpret the probable reflections of these engagements in the concept of human-artifact relations through camera operating process.

1.2 Scope of the Thesis

The scope of this thesis study consists of different areas which finally structures an interdisciplinary attempt to understand the nature of human-artifact relation, specifically the case of camera operating. As a design researcher and a camera operator, I hold the phenomenological point of view as the main approach of this study. Thus, phenomenology with its key concepts of 'Lifeworld', 'Embodiment', 'Dasein' and 'Intentionality' is the focus area of my research. The writings of the leading phenomenologists -Edmund Husserl, Maurice Merleau-Ponty and Martin Heidegger- are the main theoretical background of this thesis study. They form both the main phenomenological literature that I build the thesis on and the methodological approach which promotes the holistic perspective in this research. Besides phenomenology, post-phenomenology is included in this study as a reinforcing research arena because of its phenomenological roots and approach to human-world relation through the mediation of technology. Leading post-phenomenologists Don Ihde (see Technology and the Lifeworld, 1990) and Peter-Paul Verbeek (see What Things Do, 2005; Postphenomenological Investigations, 2015 (Ed. with Robert Rosenberger)) provide significant resources to discuss the mediation of technology and embodiment processes while I investigate the camera operator's interactions in her Lifeworld through and around the camera.

Since phenomenology tries to understand and explain the human-world relation through the phenomena, it includes many philosophical questionings which pile up in ontological interrogations. Even though they are important for phenomenological base, those existential discussions are partly hold outside the issue which is investigated in this thesis study. In this thesis, I examine phenomenology from the perspective of its explanatory attempts to the human-artifact and human-world relations. In this sense, the ontological aspect of the term comes with the acceptance of the 'embodiment' as the ways and expressions of beings' being. However, in scope of this thesis, these ways of beings are examined from the perspective of bodily experiences and interactions in the Lifeworld, as the beings manifest themselves as

intermingled beings within the Lifeworld. Thus, this thesis study has the relational perspective of phenomenology, which would help us to understand human-artifact relations, without going into deep philosophical discussions.

This study also covers the concept of body technique which is brought to the arena by sociologist Marcel Mauss. However, this thesis study does not position itself under the area of sociology, even though it examines the body technique of camera operating in a camera operating subculture. This study views body technique as related to the concepts of *muscle memory, tacit knowledge, skilled practice,* and *expert user*. Thus, this approach positions body technique closer to the anthropology and lets me cover specifically the writings of Tim Ingold which try to merge anthropological and design understandings together. Body technique is a term which has strong bonds with skilled practice and bodily experiences, which makes us consider human-artifact relations by examining operating a tool as a skilled practice and body technique while executing specific bodily experiences.

Human-artifact relation is one of the main subjects that this thesis study is interested in, which exhibits the relation of body technique with design studies. I, approach camera operating as a phenomenon beyond mere tool using as investigating the cues that human-artifact relation may achieve deeper and richer understandings. In this regard, my aim is to understand and explain the human-artifact relation not primarily in practical concerns, but also in theoretical and intellectual aspects. Thus, phenomenological approach and especially embodiment in design disciplines forms a notable part of this thesis as also seen in the literature review (see Chapter 3). Since embodiment in design research bases on the discussions examining the term of embodiment in human-computer interaction (HCI), the thesis needs to include HCI as the starting point of phenomenological approach in design studies. Even though there are phenomenological approaches and embodiment in other design studies such as architecture and city planning, I keep them out of the scope of this thesis project. This is because, the scale they concern is much bigger than the scope of this thesis study while their matter of investigation is also differentiated from this thesis subject.

Thus, I examine phenomenology and embodiment in design research concerning HCI and accordingly its dispersions in product design.

This PhD thesis studies human-artifact relation under the scope of phenomenological approach and techniques of the body through the case of camera operating process. Worked as a camera operator, I can assure the readers that there are many camera types and camera operating practices and contexts, which are impossible to be covered in this solitary thesis study. Thus, as being a part of it, I tackle multicamera systems and examine the body techniques of camera operators in these systems, while keeping single camera operating in documentary productions and news gathering camera operating practices out of the context of the study. Besides, this thesis covers camera operating processes of the operators at TRT (Turkish Radio and Television Corporation) in Ankara. Camera operators who work in private sector or the ones who are TRT members but out of Ankara are also not the subject of this study. In addition, within this scope, the participants are camera people who have at least five years of occupational experience. This is because, I wish them to have enough practice in different camera operating contexts as have tackled various camera supporting systems. Thus, I investigate the embodiment processes and body techniques of camera operators in multicamera systems at TRT in Ankara.

I should finally remark here that, throughout the thesis I will speak with my voice as using the pronoun 'I' while I will be mentioning my own experiences either in camera operating or in thesis writing. Besides, as a female camera operator, I will use the pronoun 'she' while mentioning the 'third-person singular' in general, unless I will indicate a specific male participant.

1.3 Research Questions and Aim of the Thesis

Being at the intersection of camera operating and researching in a design department, the reason I pursue this PhD study is to investigate the nature of camera operating practice. I hold a phenomenological perspective while researching it, which would

help me to understand the practice in the entirety of various interactions and happenings. Thus, as an insider researcher, I ask the following research question:

- What is camera operating practice in multicamera systems from the phenomenological approach through camera operators' perspectives?

Apparently, with this thesis, I aim to understand what the nature of camera operating is. What phenomenological approach brings us to reveal and understand this nature, and what happens when we look from camera operators' perspective to the phenomenon but in multicamera systems, are main issues that I aim to discover. Here, as discussed above, the notions of embodiment, techniques of the body and skilled practice, and their intertwining may play important roles as opening the path to this understanding. By achieving this aim, the goal of the thesis is to document and present this nature of camera operating as offering its scope and frames, which may propose a model of the practice. This finalized study is intended to provide the distilled reflections of phenomenological discussions on the skilled practice of operating a mass-produced professional product by holding the holistic approach, and to examine human body, mind, her environment, and the tool that mediates between her and the world as an intermingled unity. Literature review including sources of phenomenology, techniques of the body, design and embodiment, and camera operating; and two-staged field study of autoethnography and ethnography promise me to structure this study and to carry out theoretical discussions that may go beyond camera operating. This thesis aims to offer an inspiring perspective and understanding for human-artifact relation which provides a vast resource for design research.

Thus, camera operating as the case study here, investigated through phenomenological approach, may help me to re-discuss the meaning of camera operating practice as perceiving it from a relational and interactional view. This would expand and deepen the meaning of 'camera operating' and create a theoretical discussion which provides benefiting opportunities for design researchers. Phenomenology as the theoretical background and the methodological approach of

this thesis, helps me to wholly understand and re-describe camera operating, which may also provide a resource for other operating practices in the future.

1.4 Structure of the Thesis

This PhD thesis includes a literature review that also provides a theoretical background for the study, the methodological approach and research design that shape the two-staged field study, the findings gathered from the field studies, theoretical discussions and interpretations on the findings and the possible contributions and implications of the study in different aspects.

Consisted of seven chapters, this thesis starts with the Introduction Chapter which gives the brief information about the theoretical background, scope and aim of the study together with the research question. In following -second- chapter, theoretical framework of the thesis is given. Phenomenology, post-phenomenology and techniques of the body with their related terms and concepts provide the content of this chapter. Chapter three examines the theoretical background of this thesis in design studies -mainly HCI and product design. Chapter four makes a transition between the theoretical background and the field study by giving descriptive information about camera operating that is covered in this thesis. Therefore, readers who are not familiar with the technical and occupational terms of camera operating are intended to get used to the research area. In Chapter five, methodological approach is exhibited. My research design and the two-staged field study namely autoethnography and ethnography are given in detail together with their coding and analysis processes. Chapter six focuses on the findings of field studies. This chapter presents the camera operator as embodied being in the world and uncovers the nature of camera operating in multicamera systems from various aspects by revealing the embodiment moments of the camera operators together with the ways of achievement, sustaining, and interruption of the embodiment. Chapter seven is the final part of the thesis which revisits the research question, discusses the findings through theory and field studies, and exhibits the implications of the thesis.

CHAPTER 2

THEORETICAL FRAMEWORK

While trying to understand the nature of camera operating practice, this thesis consults and bases phenomenology as the main theoretical framework and research approach. Besides phenomenology, post phenomenology also provides a crucial basis for the research. In order to understand the specific ways of camera operators' using their bodies during camera operating process, this research also needs to be nourished from the literature of techniques of the body and skilled practice. This chapter presents the theoretical framework of the thesis in-between philosophical, sociological, and anthropological concerns by highlighting phenomenology, post phenomenology, techniques of the body, and skilled practices.

2.1 Phenomenology

Phenomenology is about the appearances of phenomena. However, this appearing of things is different than how it is tried to be explained in Cartesian movement, in which things appear only in mind that they are perceived as pictures or symbols. On the contrary, phenomenology claims that things appear to us as they are, and they are in the way that they appear. The way the things appear are crucial because it is the way how they manifest themselves. One thing appears to us different from the other one (Sokolowski, 2000). Thus, when Husserl introduced phenomenology to the philosophical literature more than a century ago, he becomes interested in the things. As Lyotard (1954/2007) expands, Husserl becomes also interested in the way that the things integrate to the consciousness. Husserl (cited in Lyotard, 1954/2007) underlines that this integration is intentional and directed, which means it is not the relation of two independent outer things, but it is the relation between a phenomenon that appears to the specific consciousness and the consciousness of that specific

appearing phenomenon. Thus, it is about the subject intending the object which finally reveals it as an intended phenomenon. Then, the object becomes related to the object-conscious subject, and the subject becomes inseparable from the intended object as it cannot be considered without it. Husserl (1900/2001) explains the process of this appearance as experiencing the things through our conscious connection which results in the fact that we live through it.

When Husserl (1900/2001) returns to the things, he challenges the ongoing philosophical understandings, because as Moran (2000) indicates, phenomenology rejects the dogmatic understanding and pre-acceptance of anything while trying to understand the real and to achieve reality. With this perspective phenomenology does something new, it is not only a philosophical movement, but also a philosophical method. Husserl's phenomenology brackets the pre-acceptances; thus, the subject and object relate in the pure experiencing process. In addition, as mentioned above, phenomenology differentiates itself from the traditional philosophical ideas as it rejects the representational ideas of things in the mind, thus representational knowledge. For phenomenology, knowledge is acquired through a directed intentional experience of the things, of the world. Lyotard (1954/2007) anecdotes on this intentionality and indicates that Husserl does not mean intentionality is only about objects; our consciousness may intend imaginations, representations, perceptions, intuitions, senses, etc. He also reads that; we are not supposed to be aware of our intentionality; if an experience happens it is intentional.

As phenomenology promotes the experiencing process and accepts it as the way how we acquire knowledge, human consciousness is no longer departed from the body and the thing and the world. Human subject experiences her life and each experience that is gathered through perceptions becomes the core of the meaning making process. Lyotard (1954/2007) refers, each perception refines the other perception, one sensing alters or fixes the other, and they flow in a coordination that cumulatively create the perception of the things. In phenomenology, the example of cube is given to explain this growth of perception. Sokolowski (2000) pursues this tradition as giving the cube example, and he explains that we see and perceive certain

sides of the cube which are presented to us, but at the same time we anticipate the absent ones. Then, as we walk around the cube our vision changes, so does our perception, which shows that our perception is dynamic instead of static. As we move around the cube, our anticipated perceptions become actual perceptions and actual perceptions become already perceptions as they fade into absence. However, in the end we know that we have perceived that certain specific cube, so we know the identity of the cube. We may see different visions of the cube, but those visions finally are unified in the being of that cube. Thus, there is an objective reality of being that cube but at the same time we have our own subjective experiences of that cube. Here, we can interpret that phenomenology is not interested in measuring the reality, it provides us a new methodology of approaching the reality and the meaning through our perceptions and experiences. So, following the cumulative perceptions, our experience become our own subjective experience covering our intentional consciousness that of or about intended, appeared, and perceived things in the world we live in.

Here, we should indicate one of the main terms of phenomenology: Lifeworld. Husserl (1936/1970) mentions this term in the first place, then it becomes one of the prominent concepts when phenomenology is on the table. It refers the constant environment, in which our experiences happen. In the following section, I will try to explain how it evolves and how it connects to this PhD thesis study.

2.1.1 Husserl and the Lifeworld

Even though we may meet with the concept of Lifeworld in his earlier studies (Gander, 2001/2017), Husserl, in his book *Crisis of European Sciences in Transcendental Phenomenology* (1936/1970), introduces us Lifeworld as a phenomenological term:

> It is this world that we find to be the world of all known and unknown realities. To it, the world of actually experiencing intuition, belongs the form of space-time together with all the bodily (körperlich) shapes incorporated in it; it is in

> this world that we ourselves live, in accord with our bodily (leiblich) personal way of being (p.50).

Thus, Lifeworld is the place of experience that we stand as *körperlich* which means we are physically and geometrically there, and we experience as *lieblich*, as living body. It is the environment we constantly pursue our daily lives and establish and continue our relations.

Føllesdal (2010) indicates, even though Husserl's philosophical ideas altered considerably throughout his lifespan, Lifeworld was an important element in his writings from the beginning. For example, in *Logical Investigations* (1900/2001), Husserl mentions we experience things and live our lives in the world, which is itself not the experience but an object that our consciousness intends to and appears to us to be experienced. His later works on Lifeworld focus more on our perceptions and experiences instead of tackling the Lifeworld as a separate object. Lifeworld becomes closer to us. As Moran (2000) discusses, Husserl's ideas evolved to a point that he started to consider the limits of human understanding and to connect human consciousness to the Lifeworld where it is open to be fully caught. Here, he also tackles the experiencing subject, what we can see later in his followers as embodied subject.

Husserl comes from a mathematics and philosophy background, which significantly influences the development of his philosophy and the term of Lifeworld. In his *Crisis* (1936/1970), he starts with the antique Euclidian geometry and its inadequacy of explaining infinity of the world before he continues with Galilean science and its approach of natural science to explain the objectivity and ideality. From this point of view, he develops the idea of pure geometry in Galilean science which offers a mathematical ideal world in which things are shaped and located in spatiotemporal organization. Husserl accepts this world also as the one that we practically involved. He continues that we tend to accept the spatial geometrical world and the real world that we experience our everyday lives as the same. However, as mentioned above, the change in our spatiotemporal position results in an alteration of our perception,

so experience. This temporality of our bodies in the geometrical world leads to the way of our everyday experiencing intuition. Through this intuition we perceive the habits of the things while they are appearing to us, which makes us to intuit the possible future changes in it as imagining, representing, or calculating the world in our minds. So, we can be conscious of our varying possibilities of the happenings in the world, which means the things appear in a way of universality, not arbitrary. This leads Husserl to the objective reality and relatedness of the things, occurrences, and interactions in the world. He achieves his natural mathematical explanation of the objective world. When he explains it, he also remarks the world that we are everyday experiencing stay unchanged in terms of its essentials and causalities even though we affect it through technology. Our accomplishment is the possibilities into the infinity. Thus, when we perceive things, technology brings us the being of the thing and the possibility of the thing. In the end, we have the objective world. So, Sokolowski (2000) states that Husserl's phenomenology makes the mathematical objective Lifeworld roots from our everyday experiencing world, which is a significant attempt to explain the problem of objective world. Husserl's phenomenology recognizes our everyday experience and through it, transforms the everyday objects to mathematical calculations and idealizations.

Above, we understand that Husserl's phenomenology accepts that subjective and different experiences are related to the one and universal Lifeworld. According to Føllesdal (2010), this situation reveals the *intersubjectivity* and communication concepts in phenomenology which lie under the oneness of the world. Because if I experience a thing, the other one experiences another perception and vision of that thing, which makes that there are other ones staying in that Lifeworld and are open to my experience. Sokolowski (2000) expands that cube example above and indicates that as we move around the cube and the vision alters and develops, someone else also moves around and perceives the other sides and visions of the same cube, which makes me to accept the cube transcending my subjectivity and makes it an object of intersubjectivity. Then, I perceive that other subjectivity as the other and start to experience that other as a part of the Lifeworld. In this Lifeworld, the object both

plays a sensory level perceived role by many others as they sensorially taste, smell, touch, see or hear it; and makes ground in every other person's mind as categorized or related to its features or characteristics. I know and experience something different than the other one.

Sokolowski (2000) indicates, this intersubjectivity also happens directly between the subjects, which means I experience the other like myself and the other experiences me like herself. While I experience the other one, I come across with her body and mind together. Her body moves around the Lifeworld and experiences the things like my body does. That body also places the mind which holds the consciousness and expresses the point of view of the other as she also speaks a language or acts her bodily movements. Consequently, we as our bodies and minds together in and connected to this Lifeworld, we are in an intermingled interactions of bodily performances and sensorial perceptions as well as expressions, perspectives, and meanings.

So, how do we understand or know the other? Is it possible? Husserl (1931/ 1960) attempts to solve this problem. He starts with the discussion that when I experience someone else, anything belonging to her essence is directly given to be experienced by myself. If this would be the case, if I would be able to access her momentarily experience, that means it would be my own essence that experiences, in other words she as experiencing and I as experiencing be the same. Thus, as Moran (2000) states, Husserl and his student Edith Stein accept that it is not possible to undergo an original experience of other person, but I can understand her experience through empathy. I can perceive the clues of other's situation and become aware of what she thinks, feels, or lives. Through empathy, intuitively I try to understand the other as I read her actions and relate them to my own experienced actions, reactions, feelings, and thoughts. Thus, I experience the other one not as a direct essence of herself, but a secondary level of experiencing, a constructed experience. This way of experiencing also resembles the way of experiencing memories, an experience that is established on other experiences. As Sokolowski (2000) indicates, when we remember a memory, we do not recall a picture of an object, but we recall the specific

perception of something specific to that specific spatio-temporality. Thus, when we remember our memories we re-live our intentional experiences, we found the experience of our memory on the experience of past perceptions. Therefore, experiencing the other person in this intersubjective Lifeworld is like re-living our memories, the past perceptions of our experiences.

After trying to explain this intersubjectivity through empathy, Husserl (1931/ 1960) develops his idea to a direction of *ownness*. He indicates that the other one is the one which/who I cannot access through my original experience, because my original experience only belongs to my essence or what I directly have. Thus, my experience of the other one is a founded experience which tries to refer the unfillable experience that I cannot directly live but only leads me to understand the other as indicated. Thus, there is a sphere of ownness in myself that the other cannot know and a sphere of ownness of herself that I cannot originally experience. In order to reveal this ownness, the gap that the other one cannot fill, I constitute and project her in myself by through modification of myself. As Moran (2000) mentions, this approach to intersubjectivity is more than to understand and know the other, it is to construct the other for myself.

Briefly, we can understand that our consciousness intends objects or the others in the Lifeworld, which intermingles us in an intersubjective world. As Føllesdal (2010) underlines, when our minds intend a specific thing, the unintended features of that thing together with the rest of the world stay unfocused, but we still know that there is that rest of the world which is not presently paid attention and perceived. This unintended parts and blind sides construct the scene and create the *horizons* for our intended experiences, it gives us the possibility of future perceptions.

Consequently, constantly developing conscious perceptions through our ever-changing visions establish our experiences of things and others in this intersubjective but at the same time in an objective world. Phenomenology, through the concept of Lifeworld, creates a base for our experiences and relates ourselves directly to the environment we live in. Lifeworld becomes the scene that we experience things and

accordingly create the meaning. Besides, Lifeworld becomes the scene where Husserl (1900/2001) constructs his phenomenological idea, in which he manages to "go back to the things themselves" (p.168).

To sum up, as a phenomenological concept, Lifeworld plays a crucial role for human-artifact relation and accordingly for camera operator and the things around her. In the scope of this thesis, a camera operator performs her camera operating process in the Lifeworld of multicamera systems consisted of various elements including cameras on various supporting systems, camera accessories, the contexts that shootings take place and the camera and broadcasting crews that the operator work together. From the phenomenological perspective, this Lifeworld of camera operating process bases the perceptions and experiences of the camera operator. In addition to the inseparability of human being and the environment, phenomenology also reveals the connectedness of human mind and human body. At this point, embodiment, another significant phenomenological concept comes to the forefront, which is tried to be explained in next section.

2.1.2 Merleau-Ponty and Embodiment

Merleau-Ponty who is a leading French phenomenologist tackled many issues in his writings including perception, action, nature and intersubjectivity, which leads him to mainly discuss consciousness, the world and how they relate each other. By doing this, he seems to criticize both intellectualism and empiricism, while the former accepts the consciousness as the constructer of the world but positions it distant from the world and the latter examines consciousness as one of the many other things in the world but exists separately. Merleau-Ponty stays against this dualism and accepts the world and the consciousness together: they are an inseparable whole (Romdenh-Romluc, 2012). While advocating the holistic perspective, Merleau-Ponty is influenced by the Gestalt psychology which argues that the form which is structured is something irreducible to its parts and every experience happens with its

background. Thus, none of our experiences can be taken into pieces of smaller elements, because they are more than the sum of those components (Moran, 2000).

This holistic approach which was evolved to a *being-in-the-world* understanding never leaves Merleau-Ponty and as Carman (2008) emphasizes, Merleau-Ponty slips the perception from all dualisms of internal-external, subjective-objective or mental-physical, because these categorizations are far from to capture what the perception actually is. Following this holistic point of view, Merleau-Ponty does not only argue for the togetherness of the consciousness and the Lifeworld of the experiences, but he also defends the relatedness of the conscious mind and conscious body. He establishes this relation in his *The Structure of Behavior* (1942/1963), as he emphasizes the importance of the body while we are experiencing in the world. His views promote the idea that the body is not a separate instrument but an envelope for our intentional actions, while our intentions are embodied in our bodily experiences. In addition, neither our souls are the reasons of our bodily movements, nor they are the commander of our bodies. Here, we see that Merleau-Ponty also puts the soul into the play, and he attempts to explain the relations between soul, mind and body; then the relation between subject, object and world through the term of *dialectics.* He does not reject that the essences of these terms, but he underlines that they are the sectors of a greater unity. He accepts the differences between for instance the materiality, the liveliness, and the mind of the subject, but examines them as different expressions of the reality or different forms of the unity instead of separate phenomena. As Romdenh-Romluc (2012) explains, Merleau-Ponty tackles those parts of the human subject as functioning in a correlation, coordination, and cooperation of each other. Thus, the organism cannot be reduced to its parts. Carman (2008) indicates, Merleau-Ponty uses the term of *dialectics* as a holistic approach, in which he apprehends the terms of dualistic thought and their dependence to each other, while he tries to form a new understanding through not directly rejecting the judgements that those concepts form, but internalizing the change of our being-in-the-worlds which are intermingled with our experiences.

As Merleau-Ponty puts a great importance on this wholeness of the subject, he tackles the body throughout his studies. He borrows the concept of *being-in-the-world* from Heidegger, whom I will mention in detail in the next section. Merleau-Ponty in his *Phenomenology of Perception* (1945/2002), tackles being-in-the-world as existing in the world or belonging to the world and asserts that body is the mediation of existing in or belonging to the world. Because having a body is to be intermingled with the world and to function in the world. He indicates the similarity between the body in the world and the heart in the organism as asserting the body works like a heart while it is providing a constant alive sensorial connection and making possible to breath in the Lifeworld which forms a system of unity. Carman (2008) explains, this body is not just an object in the world, but it dwells the boundary between me and the world which cannot be drawn clearly or sharply. Thus, the importance is not where this boundary lies, but it is what it does. Here, Carman almost suggests the mediating aspect of the body between the mind and the environment.

This mediating position of the body happens in Merleau-Ponty's *phenomenal field* (1945/ 2002), which is the area that the direct experience takes place. Phenomenal field is not an inner world of the subject that the consciousness is constructed. It is but a world in which a specific object can be experienced through a specific action because of an internal perception, a pre-reflective experience. Moran (2000) explains that this pre-reflective experience is the experience of to have a limited and finite body which still opens possibilities of experiences that are adapted in this finite situation. Because this comes from our bodily being in the world in which we are formed through our embodiment and through our senses. Thus, I interact with the object through a pre-reflective experience of my body which understands and knows the path that my body possibly goes through. My different senses work as a unity while they are processing overlapped and I sense an object as it invites me to certain acts and actions; I know the wall to be climbed or the apple to be eaten. In addition, I may welcome a state through my bodily actions, such as inviting sleep by preparing my body through going to bed, lying down, closing my eyes, and curling up. Thus,

my body knows what to do in certain situations to grasp the intention. It constructs the way I perform my movements. As Gallagher and Zahavi (2008) indicate, I know tacitly where my body is, I know the spatio-temporality of my experience, and possibilities and potentials of my body under those circumstances. This knowledge stays remaining during my experience and constructs my experiences as embodied. This embodiment is not only a spatial happening, but it also includes my feelings, my emotions, my bodily situations, my mood, and motivation. In a broader level, it also shapes the way I am perceiving the world; if I am depressed, I see the world depressing. My experience and accordingly my perception of the world are something constantly changing and developing, which presents that I am integrated in the world through my embodiment.

Moran (2000) draws our attention to the moments of where our relation to the world does break. This reveals the working way of the system through showing what is mis-going there. Following Moran in this sense, we can deduce that if there happens a problem to match the intended object or situation and the directed habitual actions, then our embodied being-in-the-world stumbles and the unity breaks. To study this relation, Merleau-Ponty (cited in Moran, 2000) researched people who have malfunctioning systems of limbs or brain damages. His studies show that we have *phenomenal bodies* that store the potentialities of our experiences even though our *objective bodies* are damaged or missing. A person who does not have a limb still has her own phenomenal body which understands and knows how to react and experience in certain positions. Thus, having a missing limb such as a hand, breaks some specific being-in-the-world through being unable to relate the phenomenal body and objective body to take the action of holding an object. Thus, Merleau-Ponty cleverly shows that our embodiment is something natural and we can only notice it when it breaks down. This will be given in detail when I will mention about Heidegger and his phenomenological ideas of human-artifact relation in the following section.

These studies provide an insight to research the relatedness of objective body and phenomenal body, which are very close terms of *body image* and *body schema*.

According to Gallagher and Zahavi (2008), body image is closer concept to objective body, in which the intentional object is the body of the subject. Body image involves subject's own perceptual experience of her own body, conceptual understanding of the term of body and the emotional attitude towards her own body. The authors explain the term of body schema on the other hand, as including the pre-reflective consciousness leading to sensorimotor movements and body awareness, which approximates it towards phenomenal body. Merleau-Ponty (1945/ 2002) uses body schema as a theory of perception that reveals the bodily knowledge beneath the objective knowledge of the body. This bodily knowledge is always there and makes us our bodies. Despite the differences that are attributed to these terms, we as our own embodied being-in-the-world, relate to our body image and body schema during our experiences. Because as Merleau-Ponty continues, when it appears to us, we perceive the world through our bodies. This perception through our bodies also makes us to re-discover our bodies as the subject of our perception. Thus, we experience. We become embodied through our bodies in the world and with the world.

To sum up, Merleau-Ponty, as a follower of phenomenology and Husserl, is basically interested in our relations with the world. He frankly brings the body in the phenomenological discussions and puts a great importance on it. For Merleau-Ponty, we are embodied in this world and perceive it through our bodies with our embodied movements. For him (1945/2002), these movements -our habits- are acquired through the learning process of our bodies and exhibited as a unity of our perception and multisensorial motor capabilities according to the affordances of the object or the situation. This is how our instantaneous embodiment happens. However, our being-in-the-world is not limited to that immediate experience, we live the traces of our experiences and continue to interact with the world. I already discussed in previous section, we remember our memories, or we imagine things. Thus, experience may happen as going beyond momentarily perception. As Carman (2008) mentions, these sensations may be an afterimage or hearing, of which we can differ from our momentarily experience. However, we also have emotions which cannot

be distinguished from anything. We pre-reflectively feel those emotions and they are there as related to our being-in-the-world.

Considering the above-mentioned concepts related to Merleau-Ponty's embodiment, a camera operator relates to the camera operating world and to the camera. Camera operator is a unity of her minded body and bodied mind, and inseparable from the environment she interacts in. This thesis accepts camera operator completely intertwined in her camera operating process as pursuing her bodily experiences by researching her nature of being-in-the-world.

2.1.3 Heidegger, Being-in-the World, and Dasein

Martin Heidegger, as one of the most significant phenomenologists, mainly tackles the concept of *Being* in his prominent work *Being and Time*. His approach to understand the meaning of being led him to consider the relationship of this being with other beings. Thus, Heidegger offered very important approaches and interpretations to human-artifact relations through phenomenological perspective.

Heidegger's phenomenology is slightly different than Husserl's transcendental phenomenology. As Dreyfus (1991) explains, Husserl bonds the mental activity with intentionality and this mental content makes everything understandable for the encountering human being. However, Heidegger's phenomenological perspective is hermeneutical. He tries to purify his philosophy from mere cognitive and representational mind, and he promotes that the basis of understanding and knowledge comes from human being's coping in the world. Thus, he tackles ontological questions instead of epistemological ones to understand and to interpret the way of being.

In *Being and Time* (1926/1996), Heidegger tries to understand the way of being through formulating and asking questions about being. He stands in an opposite position of traditional philosophy which accepts 'being' as the most fundamental and universal concept that cannot be defined and even does not need a definition because

everyone knows and understands what being is. However, Heidegger rejects these prejudices and starts with understanding how to ask a question towards interpreting the meaning of being. Here, he makes us understand that to be asking the question about the meaning of his own being is to make his being transparent in his being. Asking the questions reveals the being of the being. This being which is aware of its being and investigates the possibilities lying in its being is called as *Dasein* by Heidegger. *Dasein* means being there while *da* is *there* and *sein* is *being.*

Dasein, referring mostly human being in Heidegger's works, is related to the being-in-the-world which is a familiar concept from the previous section, in which I examined Merleau-Ponty and embodiment. Stapleton (2010) claims the connection through following sentence: "Being-in-the-world is Heidegger's descriptive interpretation of the self as Dasein" (p.44). Stapleton continues by asserting that the expression of being-in-the-world underlines an elemental unity of Dasein while it consists of the interconnected being, in-the-world, and the one who is being-in-the-world. Here, the preposition 'in' does not refer to be spatial relationship with the world. Heidegger uses 'in' as dwelling, residing, inhabiting or being familiar with. Thus, being-in-the-world has a deeper meaning than mere geographical positions.

As Dreyfus (1991) indicates, what Heidegger is interested in being, is the way of being, which is Dasein. And Dasein's way of being is *existence*. This presents itself in Dasein's understanding of itself in its being. Kisiel (2010) interprets this understanding as underlining that it happens as a matter of fact instead of a conceptual cognition. Dasein understands this being through simply living its life, thus its dwelling, inhabiting or familiarity concerning the world is preconceptual. The knowledge gathered through this being-in-the-world is knowing how to live in this world, how to experience this world, it is the pre-understanding of how to cope in this environment through habitual activities. We can here interpret that Dasein understands the being of its being and possibilities of the way of its being. Dasein understands the reserve that it has. As Heidegger (1926/1996) emphasizes, Dasein may either choose a possibility or the possibility may grow in it. Thus, the existence comes through Dasein's accepting or neglecting the possibilities, it comes through

Dasein's relation to its being. Dreyfus (1991) interprets this analysis of existence through various ways; Dasein either self-interprets itself that shows its nature or mis-interprets itself which causes unsettledness. Then, Dasein either takes a stand through owning or disowning its being, or it doesn't take any stand. So, Dasein is owned. The own ownness of Dasein presents itself through the comportment of Dasein to its way of being. This lets it give meaning to its own world, then to the other entities in the world. Dasein's own understanding of its being is not something unchanging, on the contrary, as Heidegger (1926/1996) underlines it is something developing or diminishing according to the manner of being at a specific time: "The meaning of the being of that being we call Dasein proves to be temporality" (p.15).

Here, we can derive that Dasein understands the way of its being temporally and Dasein's way of being includes its preconceptual knowing of living in this world, as Heidegger (1926/1996) indicates it dwells, it inhabits the world, it is familiar to the world which makes it to take care of something in the world. Taking care of something as being-in-the-world, then, presents Dasein's existence as its way of being related to other beings of beings. Here, Heidegger's phenomenology differs from Husserl's phenomenology and tends to be hermeneutic. Dreyfus (1991) explains that Husserl's phenomenology tackles the object that presents itself and appears to the subject, therefore phenomenology concerns which is fully evident. However, as Dreyfus continues, Heidegger's phenomenology concerns how a phenomenon can be made visible, how that phenomenon let us discover what potentials it has, what is hidden in itself. This makes Heidegger's phenomenology hermeneutic, interpretative.

Accordingly, Heidegger pursues these hidden potentials in being of entities and tackles the problem of grasping and understanding the phenomena, the entities in the world and the objects in the world. Here, as Heidegger (1975/ 1988) indicates, Dasein is in a commerce with the things around it, and this commerce is grounded in a temporality as I mentioned the temporality of Dasein above. Thus, Heidegger is interested in understanding the specific commerce between Dasein and the things at any given time, which may be open to alteration. Consequently, as Dreyfus (1991)

cites, Heidegger asks what way of being of the objects make them understandable. So, he investigates the modes of being of objects and their relations to Dasein's being-in-the-world. As being-in-the-world, as mentioned above, Dasein has the knowledge of inhabiting and taking care of things pre-conceptually. Heidegger (1926/1996) emphasizes, this taking care of things require using things, utilizing things in order to do something. Thus, an object does not present itself apparently in our thematization. They are there, nearest to us, to be grasped and used in order to serve our everydayness. This is their handiness. They reveal their being of handiness and show themselves at our disposal. As Heidegger (1975/1988) states, the being in-order-to is the contexture of equipment. Our relation to the things always happens in way of context. And, in these contexts, they withdraw from our senses, and we become busy with the work that its being of 'in-order-to'. Dreyfus (1991) interprets this way of being of the object as availableness, as Heidegger underlines as equipment. It is the everyday coping with the things internally and fundamentally instead of theorizing a mental content towards an outer object. "… in its factical being-in the-world, the Dasein is well practiced in a specific way in handling this being" (Heidegger, 1975/1988, p. 292).

Heidegger (1926/ 1996) in his famous *Being and Time* gives the prominent example of hammer and hammering. As soon as we are focused on hammering and do not look at the hammer, our relation to the thing becomes more original and the thing reveals itself in the usefulness. Thus, hammering discovers the handiness of hammer, the being-in-themselves. This handiness is also called hammer's being ready-to-hand. It's readiness, handiness and availableness are known through pre-conceptual grasping and awareness, in Heidegger's words '*circumspection*', which is a very close theme to pre-conceptual knowing and bodily knowledge in Merleau-Ponty. Heidegger (1975/ 1988) explains that when we enter a room, we do not conceptualize the door, the seats, or other objects; we simply hold the doorknob circumspectly, go through the door circumspectly, avoid or utilize the things there circumspectly. Thus, Heidegger emphasizes, circumspection makes the being uncover as equipment, it reveals the handiness of the being.

Therefore, Dasein's encounter with the equipment happens in the manipulation and using of the equipment in order to something for Dasein. When this manipulation occurs, the equipment withdraws and we focus on the process of use as well as we maintain the process through our awareness, our circumspection (Dreyfus, 1991).

However, handiness, availableness or being ready-to-hand is not the only way of being of things. There are some situations that the occurentness of the thing reveals itself when the handiness is broken. These times, a new way of being of the thing appears, which is defined as present-at-hand by Heidegger. If the thing which is nearest to the hand for us is damaged or unusable for the task, then we become aware of the apparentness of the thing. The un-usability of the thing makes it conspicuous, in which the thing is there but not in proper in-order-to manipulate. It reserves to be withdrawn again if it is repaired, and it continues to be taken care of. Thus, the break in the task happens not because of an absolute change in the being, but because of a change in the qualities revealing the objectiveness in the thing (Heidegger, 1926/1996). Dreyfus (1991) interprets this kind of apparentness as malfunction, in which Dasein startles, notices the un-usability of the object in terms of its being in-order-to but finds a new way of coping and continues to the task. Nevertheless, sometimes presence-at-hand goes beyond conspicuousness, Heidegger (1926/1996), again in *Being and Time*, mentions the object may be missing in terms of handiness and being at hand, it may be unhandy, which makes it obtrusive. However, sometimes things may be unhandy because of not being missing or un-usable, but because of creating obstacles to take care of things. This unhandiness creates disturbance and the event becomes apparent through obstinacy which still calls for completion. Dreyfus (1991) reads the obstinacy as temporal breakdown while interprets obtrusiveness as total interruption in the readiness-to-hand. In obstinacy, something blocks the smooth process of what is taken care of. Thus, we wake up from the absorbed coping and become cognitively aware of what we are doing at that time. Thus, our actions become deliberate instead of pre-conceptual and tacit. In order to continue and complete the task, we need to consider and reflect on our planning. Dreyfus adds, however, even in this deliberate position, the way of our

coping is related to our skillful involvement in-the-world. Because the occurentness of the things is still related to the availability of the things. According to Dreyfus, unlike obstinacy, obtrusiveness is a total breakdown. Because obtrusiveness goes beyond the involved deliberation and alters it into the theoretical reflection. Thus, if a piece of equipment is missing, then it turns from available to occurrent, to obtrusive. When our task is completely interrupted, we simply gaze at the equipment and detach ourselves from the taking care of. In addition, we may try to understand the cause of this interruption and attempt to solve the problems.

Therefore, Dasein's encounter with the objects as being-in-the-world leads it to cope the task and to manipulate the object while both object and Dasein become transparent. This transparency is exposed to be interrupted and the object may turn into occurrent, which makes us to reflect on the object, its presence-at-hand. This presence-at-hand may either be temporal or permanent, in which we may re-cope with the task or helplessly stare at as decontextualizing it. Dreyfus (1991) continues, this reflection may transform itself to pure contemplation. In this situation, subject and object both become isolated and self-contained entities with their pure occurentness.

Similar to everyday Dasein, camera operator finds herself in the Lifeworld of camera operating context. She encounters with cameras, supporting systems and camera accessories during a program shooting. Besides, camera related objects are not the only entities she encounters, she also tackles all other elements in the shooting environment. Camera operator manipulates the ready-to-hand object, she uses them in-order-to create her intended visual image on her monitor. Thus, the object withdraws, and it becomes transparent, in which the operator is concentrated on the task not on the object. However, this handiness of the camera may be interrupted for several reasons, and in each case camera operator may react differently. If camera operator finds a way to cope skillfully, camera gains its handiness again and the operator focuses on the using.

Finally, Edmund Husserl, Maurice Merleau-Ponty and Martin Heidegger as the prominent phenomenologists, influence this thesis study deeply. Even though they have differences in their statements; their ideas and approaches bring, develop, and evolve the phenomenological philosophy and method as offering some alternatives or dissents to the approach of traditional philosophy. The most radical and important stance is against Cartesian dualism. Phenomenology rejects the dualism of subject-object and human-environment. Phenomenology accepts them as a whole. Thus, as holding this holistic perspective, phenomenology provides the basic theoretical framework for this thesis study. Lifeworld, being-in-the-world, embodiment, Dasein and intentionality are the main concepts which will be widely discussed throughout the thesis. Especially embodiment gains an inclusive meaning while the thesis is being developed. Thus, I examine the term of embodiment as also referring being-in-the-world and embodied being as referring Dasein. Embodiment with its embracing meaning plays the crucial role for the field study of the thesis project, because while I conduct the field study, I concentrate on the embodiment moments of camera operators in their camera operating processes.

As mentioned above, phenomenology with its key concepts creates the main theoretical background of this PhD thesis. However, it is not the only field that this thesis is nourished. Post-phenomenology as following and, in some ways, developing phenomenology also contributes to the theoretical framework of this thesis.

2.2 Postphenomenology

Don Ihde (2009), the founder of postphenomenology, examines postphenomenology as the synthesis of phenomenology and pragmatism. According to Ihde, it is a modification of phenomenology, in which early idealism of subjectivist phenomenology is overcome through the role of pragmatism. On the other hand, the understandings of embodiment and bodily perception together with the Lifeworld provide an enrichment to the pragmatist perspective.

Ihde (2009) explains that early phenomenology is accused of being too subjective because of using subject/object or body/mind representational terminologies. However, pragmatism as another philosophical approach that was brought the arena in the same years, started to use its own vocabulary based on practice which made it known as nonrepresentational. Instead of subject/object model, pragmatism takes organism/environment model which adds it a biological dimension. Pragmatism promotes the practice or the applicability of practice in everything. Thus, pragmatism elevates the experimentality trough the vocabulary of practice and in this way enriches phenomenology. In addition, phenomenology has a potential to develop pragmatism in terms of the analysis of this experimentality. Essences, embodiment, and Lifeworld are significant terms that make us understand experimentality deeper and better. Ihde examines Husserlian 'essences' in a different way and interprets it as something showing itself in a specific way which leads him to discuss *multistability*: the perceptual profiles are varied according to the perceptual and bodily positions. This nourishes pragmatism in terms of understanding and apprehending the experiential nature of practices. Besides, embodiment and Lifeworld also attach the pragmatism to the cultural and material dimensions of the experience. Finally, the synthesis and hybridization of phenomenology and pragmatism leads Ihde to offer postphenomenology as a new way of thinking and tackling human-artifact relations.

In this new approach, technology takes an important place. Ihde, unlike classical philosophers, is interested in technology in terms of understanding the development of technologies in the Lifeworld and its relation to humans in this Lifeworld. Thus, he places postphenomenology under the philosophy of technology. Ihde (1990) aims to structure a perspective to view properly the area of technology and its relations to human being. To maintain this perspective, he places himself as a philosopher in the very relation to technology instead of viewing everything from a high distance. This approach puts postphenomenology in a relativistic way, in which he utilizes technology to navigate this relation to the world: According to Ihde, technology

mediates our relations with the world. Thus, postphenomenology is interested in the mediation of technology.

Following Ihde, Verbeek (2005) also criticizes the fact that classical philosophy approaches technology as a power that transforms the world and alienates human being from reality. According to him, in classical phenomenological movement, some philosophers have similar concerns about technology, and they accept it as estrangement tool, such as Heidegger who believes technology is a dominant and controlling notion, despite his approach to technology as a manner of describing reality. Thus, postphenomenology offers a new approach to human-technology relations, in which technology is not a beast but is a phenomenon to be understood through the artifacts. In postphenomenological perspective, technology is not something that alienates us from the reality.

Here, Verbeek (2005) draws our attention to the endeavor of phenomenological approach which constantly seeks for authenticity or pure reality. Verbeek criticizes classical phenomenology because of its claim to reveal the original essence in the things. He sees the essences in the things cannot give us the reality, we need to experience phenomena in their contexts through mediation of other phenomena. Thus, reality is context dependent. Reality happens in variations. Reality happens as multistabilities. Ihde (2012) states that multistabilities occur as following phenomenological bracketing, as beginning with the apparent and continuing with deconstructing that apparent option and discovering the variations. Thus, multistability of a technology starts with our familiar relations to artifacts and then follows reconstructing new familiarities from these relationalities. Ihde mentions not only the multistability of the specific technology but also the variability of the bodily engagement with that technology. He gives the example of archery and connects the use of archery with the cultural contexts that lead different ways of use. The materiality of the artifact, the aim of the use, the way of the body engaging with the artifact differ according to the context and society that the use takes place. At this point, as Verbeek (2005) indicates, postphenomenology wishes to analyze human being in her Lifeworld context instead of describing or measuring the reality.

Postphenomenology is an evolution of phenomenology as it focuses on this human-world relation through mediation of artifacts, in a post-modern world; it is mediation of technology. This mediation happens according to the context it takes place, and it occurs as not a simple intermediary, but it actually mediates the relationship.

Verbeek (2005) indicates, in this mediated relationship human being and the world are co-shaped simultaneously. They affect each other through determining the ways of they are being constructed. This is a mutual relationship and each one presents itself to the other while overcoming the duality of creating human subject and the created world. Here, the world is also creating. Thus, human being is not the mere essence of human which presents herself in-herself, but she is the one who may manifest herself in-the-world, in relation to the world. Thus, postphenomenological relationality shows that, in our relations we are co-shaped by the world through the mediation of artifacts which let us understand the role of technology. As Verbeek (2005) states, postphenomenology tries to answer what is the role of technology in human existence and in the relation between human being and the world.

Answering this question, according to Ihde (1990), there are several ways of how relationality works in our experiences; including embodied technics, hermeneutic relations, alterity relations and background relations. For each relation, he formulates the relationality using the terms of I and World. For example, embodied technics, which is another way of saying "ready-to-hand", is formulated as (I-Technology)-World and emphasizes the embodiment constituted between human and artifact. In addition, according to Ihde, hermeneutic relations include the second level of embodiment which is needed to be interpreted, such as writing and reading a text or seeing the snow outside and feeling the cold, which is formulated as I-(Technology-World). Alterity relations approach technology as the other human such as the examples of artificial intelligence of video games or robotics. Ihde formulizes alterity relations as I-Technology-(-World) while underlining technology is on the foreground and disengaged from its context-world-. Ihde also continues with background relations that refer technologies remain in the background and withdraw from the attention of the user such as lighting or a fridge working constantly in a

house. Ihde doesn't offer a formulation concerning background relations, which might happen because he believes embodiment becomes absent instead of transparent in these relations.

Although Ihde is very clear about explaining these relations, and even though his classifications of these relations may help scholars while describing the ways of human-artifact interactions, I have doubt about the idea of classifying relations. This is because, despite the fact that each relation has its own unique characteristics and different type of interactions, phenomenology views them as a holistic process. Thus, for example, an interaction may elevate an alterity relation, however this is also a way of relation that occurs because of user's being-in-the-world. Thus, it is embodied even though it is not seen as a simple transparency of the artifact. Therefore, in this thesis study, I examine embodiment as related to Dasein's being-in-the-world which include all types of relation that Ihde mentions.

Consequently, postphenomenology as seen under the philosophy of technology, is a blend of phenomenology and pragmatism, which looks for understanding the role of technology in human-world relation. Ihde (2009) calls philosophy of technology as technoscience, which is again a hybrid term of technology and science. According to Ihde (2010), technoscience is the technology nourished from science or the science involving technologies, and it follows the way that Heidegger opened in twentieth century. Ihde accepts Heidegger as one of the most influencing philosophers on philosophy of technology. Heidegger was interested in technology and its effects on human life, but he tackles technology as an alienating phenomenon for human beings to their essences. Postphenomenologists, on the other hand, examine technology as a possibility to understand the nature of human-world relation. According to postphenomenology, technology mediates the relations and gives us an opportunity to reveal how it affect our being-in-the-world.

In this regard, this thesis investigates how this mediation happens in camera operating practice at the very heart of the human-artifact interaction while trying to reveal the nature of camera operating in multicamera systems.

2.3 Techniques of the Body

Techniques of the body as a notion was presented to the academy by Marcel Mauss (1935/1973) and is explained as the specific ways that people use their bodies in specific societies. It is the knowledge of human beings in different societies about how to execute movement patterns while carrying out a task. According to Mauss, people adopt these movements by obtaining the actions from people who perform in front of them; in other words, by imitating and educated. In this sense, the patterns of movements differ from one society to the other as they are related to sociological factors. Moreover, they are also distributed in the same society differently. In addition, techniques of the body also differ in different ages of the same person. Mauss emphasizes, techniques of a child are different than an adolescent. Thus, according to Mauss (1948/2006b), technique is the collection of movements and actions which are traditional for specific contexts, and they are altogether towards a goal.

Mauss (1947/2006a) mentions the techniques of the body through the notion of *'habitus'.* According to him, the technique is the sum of the bodily habitus that is in constant development and improvement. In this sense, Mauss uses the term of habitus as an element of a specific technique that refers to the tacit and social dispositions in human acts (Schlanger, 2006). This term is developed by Pierre Bourdieu as underlining the social nature of the body techniques. As Wacquant (2006) explains, Bourdieu's "habitus is a mediating notion that helps us revoke the common sense duality between the individual and the social by capturing the internalization of externality and the externalization of internality" (p. 318). In this sense, the history of the person and the history of the society that she lives in sediment in her body, through which the social structure turns into mental and bodily actions of the individual (Wacquant, 2018). In Bourdieu's (1990) words, habitus is accepted as "society written into the body, into the biological individual" (p. 63), and as "a system of acquired dispositions functioning on the practical level" (p.13). Habitus is both structured by the past experiences and structuring through the present

actions (Wacquant, 2006). Therefore, in addition to Mauss' techniques of the body, Bourdieu's habitus shows us that our practical actions are strongly related to our sociocultural environment, which makes our experiences dependent to the contexts that they take place.

Here, we should remember the postphenomenological notion of variations. Ihde (2012) mentions the variability of the bodily engagements during using a technology as indicating that it is context dependent. For example, sociological and cultural contexts make the use of archery varied in different societies. In this sense, we can mention the similarity between the theory of technique of the body and postphenomenological approach to variations in technology use.

Mauss' approach on learning process of these techniques brings it closer to also phenomenological approach. The incorporation of the technique and internalization of the bodily movements result in embodied bodily experiences. Following Mauss' ideas, we can state that human being develops these techniques as ways of using their bodies for specific tasks, so human body becomes the edge of human being and the Lifeworld. Accordingly, it is seen that the notion of techniques of the body is related to many areas including sociology, phenomenology, learning process and materiality of the technique. Mauss (1935/1973) emphasizes, in order to fully understand the notion of techniques of the body, we need to hold a holistic perspective while approaching and examining it. He states, these bodily facts should be investigated under physical (biological or mechanical), psychological and sociological considerations which leads to the inclusive viewpoint of 'total man'. Mauss' approach makes us consider the internalization of bodily techniques in corporeality of human being as a habitus or embodiment process.

Following this point of view, Spatz (2015) defines bodily techniques as the knowledge to form embodied practices. It is more than the mere experience happening in a use context: the human being executing the technique knows the causes and the results of her each action. Technique is not something that human being performs only with the flesh of the body, but it involves the whole unity of

human being including physical, emotional, and psychological aspects together. Human beings are distinguished because of their techniques; they walk, swim, or eat differently. This is because the technique is something learnt by training in the socio-cultural context and differs from person to person.

Here, learning process of these techniques becomes important. As mentioned above, Mauss (1935/1973) underlines that this process happens through imitating the people who execute the movement patterns in front of us. Similarly, Ingold (2011) indicates the internalizing process of the body technique through the imitation and copy of bodily gestures. The novice practitioner learns from the expert through observation and then practicing the same actions in a repetitive way. However, Ingold especially touches a point, he underlines that this is not a pure imitation without any integration; instead, the learning person adds something from herself to the technique. According to Ingold (2000), observing the bodily performance of the experienced practitioner lets the novice learner to analyze the reasons and consequences of the actions, which leads her to adapt herself and to align and present her own improvisation. Thus, the learning practitioner does not copy the information and apply it mechanically, she rather observes actively in order to absorb the bodily movements and to let her body move practically in the performing environment.

Considering the abovementioned statements about techniques of the body, Spatz (2015) suggests four definitive properties of techniques as follows: First, technique is the knowledge of practices, second it can be transferred from one person to the other, and it is dispersed among time and space by society. Third, technique happens between the person and the environment as a common understanding, and fourth, it is something done by the human body, i.e., embodied. This approach expands Mauss' criteria for the techniques of the body (1948/2006b), which suggests that it needs to be effective and traditional: techniques are effective because they perform a task, and they are traditional because they are transferred among societies and people.

In addition to Spatz's and Mauss' descriptions, Ingold (2000) examines technique of the body as skilled practice: he refers the notion of skill when he mentions the notion of technique. But he also underlines that, skill is something beyond than mere bodily technique. He explains that skill is also related to perception and action capabilities of human being as a unity of body and mind. He also distinguishes the terms of technique and technology, he indicates technique – so, skilled practice- as the capability and particular ability of the human body in specific actions while technology is meant as a general knowledge on these capabilities of practical applications. Here, I wish to make a pause and return to postphenomenology, in which Ihde and his followers examine technology as both the knowledge and the concrete technological artifact that is manufactured by the knowledge and the science. Thus, Ingold's approach to technology is a bit limited, however, his perspective on technique puts the notion of skill into the play. Before Ingold, Mauss (1935/1973) also relates the notion of skill to the technique of the body. He starts with the Latin word 'habilis' which is connected to the adaptation of human beings in which their movements are coordinated towards a goal. He then mentions 'craft', 'cleverness' and 'skill', in which human mind and habits are combined and lead a competence at something. Thus, the notion of body techniques is inseparably related to the notion of skill.

2.3.1 Skill

While mentioning the notion of skill, I wish to start with Ingold's description. Ingold (2000) proposes five dimensions of skilled practice: First, skilled practices happening between the person and tool -here, tool may be the human body itself- are functional and intentional during the technique is being exhibited. Second, skill is attributed to the human body which carries out the practice. Third, skill is something more than just applying mechanical forces, it's rather careful perception of the practitioner and her making clever decisions. Fourth, skill is transferred from one generation to the next or one person to the other through teaching and imitation of

the hands-on practices instead of written regulations. Fifth, instead of executing a pre-designed image in the mind, skilled practice is engaging with materiality of the artifact in the Lifeworld, which is a lively and ever-evolving process.

In Ingold's dimensions, we see that he pays a lot of attention on human body, the materiality and the relationality between the human and the artifact. Here, we can understand that Ingold's perspective is very close to the phenomenological understanding of embodiment. We can interpret that; he examines the skilled practice as the techniques of the body which is embodied as a combination of careful mind and attentive body and situated in the materiality of Lifeworld. Ingold (2000) tackles this materiality in the relationality of the skilled practice. Relationality promotes the reciprocal interactions happening between the user and the artifact. According to Ingold, the skilled practitioner organizes her bodily actions according to the circumstances that the materiality presents in front of her. Through this relationality, the engagement itself leads to the final goal of the skilled practice. As Ingold (2011) continues, skillful movements and practices leading a productive activity do not start and finish according to the planned images in the head of the human being; rather it happens through the process and decided by the performer during the experience that grows and becomes into a being.

Ingold (2000) exemplifies this relationality through weaving a basket. Even though, the bodily technique of basket weaving is a craftwork and occurs in a limited area when compared to the subject of this thesis -camera operating-, it gives us an important insight on how relationality of skilled practices present itself between practitioner and the artifact. Ingold approaches the basket as an artifact that is open to be transformed through its own materiality and the bodily experience of the weaver. This engagement leads to the growing of the artifact. However, artifacts do not autonomously grow in the nature, they are transformed and altered through human activities. Thus, the growing of the artifact is connected to the sources lying in human mind and body. Cleverness of human mind and ability of human body apply the creative technique of weaving on the material surface of basket. During this process, even though the practitioner starts with an initial idea of her basket

image, what is occurring on the material surface may change everything. The forces of the material, the process of how those forces unfold and gather again affect the decisions and actions of the maker. Ingold summarizes the process in three dimensions: First, the weaver makes the performance in network of forces which are created through the engagement. Second, the process is not only applying mechanical forces, but it also includes careful attention, judgements of the movements and skillful actions. Third, the process itself narrates a story, the story of weaving a basket, in which one action follows the previous one rhythmically with its all reasons and consequences. Therefore, the final form of the basket may be something different than the basket-maker wished to create. The process of the engagement is a vivid process.

In addition to Ingold's example, the relationality can be noticed when Grant (2014) describes his own autoethnographic study of comic book production. According to Grant, he managed to develop instant solutions with his momentarily applied skills to the problematics that he encountered. He continues that his skilled actions become apparent as he spontaneously reacts. He understands the interaction of his body with the material, and accordingly he changes the way of his body moves, which results in producing new languages on the movements. Thus, he organizes his bodily actions according to the requirements of the process, according to the interaction between the body, the tool, and the drawing. This is a reciprocal process, in which all elements affect each other and being affected.

During these engagements, body knows how to align itself with its movements and how to execute them. Accordingly, repetitions of skilled movements sediment in the human body. Thus, technique is knowledge, it is learnt through practice and correspondingly sedimented. Here, the characteristics of this knowledge become critical. Spatz (2015) asserts, this knowledge is not always open to consciousness. Correlative to phenomenological approach, the explicit knowledge of bodily technique is supported by a background knowledge which is embedded in the body. Here, the notion of tacit knowledge comes forth.

2.3.2 Tacit Knowledge

Tacit knowledge, or the tacit dimension of knowledge has been studied by many scholars from very wide perspectives. However, scholars consider that it is a complex notion to be defined. For example, Michael Polanyi (1966) accepts that humans know more than they can tell. Thus, the untellable part is related to the tacit dimension of our knowledge, however it is not easy to explain what it exactly means. Polanyi indicates that tacit knowledge is about operating our internal actions which we cognitively cannot control, or even cannot feel. Thus, we can deduce that, tacit knowledge is something buried in our body, as Polanyi continues, we may be aware of it if we especially focus on it.

Csepregi (2006) mentions, during the daily life, people perform many tasks tacitly, in which the body knows how to react the circumstances and to take the most appropriate actions in order to maintain the intended task. While dancing, eating, or driving a car, the body sometimes moves without going deep into explicit cognition, reacts to the challenges and finds solutions. These performances include human body as an instrument but guided by an internal harmony and embodied understanding. Human body knows how to perform an action according to the sedimented knowledge throughout the repetitive practices.

Tacit knowledge, as being difficult to be defined, refers the skills that human being needs to perform, and the bodily experiences that display the way she interacts with the world (Adloff et al., 2015). Csepregi (2006) explains this notion through different examples such as ball playing and car driving. According to him, a ball player internalizes not only skills and experiences, but also the regulations of the play. Thus, the knowledge that the player gathers in herself has various dimensions including the specific bodily actions and the specific consciousness on what is allowed during the game-i.e., the rules of the game. This situation is also in accord with car driving, in which regulations and information on driving are consistent with the inner knowledge of car driver. The driver harmonizes the outer information with her

awareness and bodily capabilities of driving, which directs the coordination of her careful consciousness and efficient use.

Ihde (2012) accepts tacit knowledge as the experiential knowledge, and he indicates its significance in the process of skill acquisition. When skills are learnt, the practitioner tries to gather the most appropriate and efficient way of using her body. During this process, tacit knowledge plays the crucial role as being collected and remaining in the body through repetitive and purposeful use of the artifact. Thus, unlike explicit knowledge gathered from the manuals or informative sheets on the use of the artifact, tacit knowledge is interested in the direct use of it with observation and imitation of the bodily motives. Accordingly, tacit knowledge of the technique of the body is a very close notion to the skilled practices.

Collins (2010) also tries to describe tacit knowledge as the knowledge that cannot be explained or expressed. He approaches the notion from different perspectives and states that tacit knowledge is everywhere and makes our life easier in our individual and sociocultural lives. According to him, there are relational, somatic, and collective tacit knowledge, which are classified according to their resistance to become explicated. Collins' relational tacit knowledge is the concealed knowledge which can be easily turned into explicit. They stay as tacit because of the obstacles in front of it to be explained. It is like keeping secrets or indicating an object or practice because of the difficulty in explaining it through informative words. Thus, it is about the contingencies within people. Somatic tacit knowledge, on the other hand, is stored deeper in the body and it is about the embodiment that occur between the body and the brain. Techniques of the body and the skilled practice that I have mentioned above are apparently related to somatic tacit knowledge. Collins himself also states that philosophers like Heidegger and Merleau-Ponty are interested in somatic tacit knowledge, in which they research the interaction between human body and the world. Thus, throughout this thesis study, with tacit knowledge, I mainly refer somatic tacit knowledge. Collins' third category is collective tacit knowledge which is embodied in societies. It is a very strong tacit knowledge that an individual can only gain if she is embedded in a society. Thus, it is embedded in our social life

that we may even not notice. It is inseparably connected to our culture and therefore, societies and cultures are determinant on this type of tacit knowledge. For example, driving a car may be individually somatic tacit knowledge, but driving a car in a traffic indicates some collective tacit knowledge concerning our tackling and management. Mauss' emphasis on the sociocultural aspect of techniques of the body is strongly bond to this dimension of tacit knowledge. Because, according to him, a technique of the body may be specific to a society or may have a different and certain way of exhibition in that specific society. In this sense, camera operating has a dimension of collective tacit knowledge as it creates collective embodiment. Since an operator uses the camera in both a camera and a broadcasting crew, she formulates her bodily actions through both somatic and collective tacit knowledge.

Another close notion and a very basic element of tacit knowledge is *muscle memory*. Our bodily practical tacit knowledge relies on its storage in our muscles. Grant (2014) mentions his own drawing experiences in his autoethnographic research and claims that the gestures constituting his bodily movements are under the control of his muscle memory, i.e., his practical knowledge, which he defines as his behaviors of his trained muscles. He asserts that the functions of his muscle memory together with his intentional design are the actors of his drawing process. So, in addition to his decisions, actions and interactions with the material; his trained and rehearsed muscles are responsible for the overall practice and the product. His practical knowledge relying on his trained body leads him to focus on the task without going too deep informative cognitive seances, and lets his body find its way through his embodied movements. Hooper (2015) points out, if a task is needed to be conducted, people who gained expertise don't need to go through using or performing introductions or explanations on the performance; on the contrary, they directly go and perform the task because of their bodily knowledge and ability.

2.3.3 Expertise

In scope of this thesis, expertise and accordingly the notion of expert user provides an expansion area for the notion of body technique. Since, the technique of camera operating is relied on the learning process of camera operators and their procedure of skill acquisition, their becoming experts is fundamentally important on their performance and embodiments.

As Hooper (2015) states, a person who gains experience on the path of becoming an expert user, does not use that much of cognitive effort and knowledge anymore in order to complete a task. Rather, she becomes more reliant on her experience while noticing the environmental challenges and reacting to them. Becoming an expert makes the user perceive the environment instantly, understand the conditions and arrange a reaction to it naturally without going deep in the cognitive process. Ingold (2011) also claims that, even though human mind continues to save cognitive representations with each new data that are learnt, expert users tend to use this cognitive process less. They are indeed more sensitive to clues in the environment while responding them with their skills, which make them know well instead of knowing a lot.

Dreyfus and Dreyfus (1986) explain the way which transforms a novice into an expert. They relate this process with tacit knowledge by stressing the difficulty of explaining it. Because this is the know-how in bodies, and know-how is not accessible through guides and rules as well as it is difficult to be described in spoken language. Thus, we may be even not aware of to which degree it spreads in our daily lives. The authors state, to gain the know-how, we need to practice the technique, and that know-how is exposed to be dissolved unless the practitioner continues performing the task. The gaining process of this knowledge is gradual, because when we begin to acquire a skill, it does not jump from knowing that of introductory rules and regulations to knowing how of relying on bodily experiences. This is a progressive process, in which the practitioner exhibits different levels of task perception, decision making, action taking and skilled moving. Even though talent

may take place when specific practitioners are considered, skilled experts still performs differently than a talented novice.

According to Dreyfus and Dreyfus (1986), this progress starts with the novice, who learns how to recognize the facts and features of a technique and its relations to the skilled activity. For example, at novice stage a car driver is taught to change the gear at certain speeds, and she follows this rule context-freely. As soon as she sees the indicator on speedometer, she shifts the gear. Novice stage is followed by advanced beginner. Advanced beginner is the level of distinguishing specific elements in concrete situations, which comes from the practical experience. For instance, an advanced beginner car driver can now understand the need for a gear shift through listening the engine sound. Competence is the next step after advanced beginner. In this stage, the practitioner understands the task as a set of facts and learns to make hierarchical decisions between them. A competent car driver may prioritize going one place to another as soon as possible instead of applying rules and regulations for safety and comfort. She also selects her specific actions according to her goal among many other alternatives. In the fourth stage, a competent practitioner becomes a proficient one. In this step, the so far experience of the practitioner affects the performance. Since the practitioner experiences a specific perspective of decision making and action taking, those experienced preferences become salient while the others dissolve in the background. Thus, a proficient car driver does not deliberately make a choice, but she just performs the actions she is used to. The proficient user intuitively sees the similarities between the current task and previous experiences and positions herself according to it. Thus, in proficiency level, if the car driver approaches a corner in a rainy weather, she knows intuitively that she needs to slow down. Then she consciously moves her foot from accelerator to brake. Proficiency is followed by expertise. In this step, a practitioner is deeply embedded in her environment and does not make deliberate actions while continuing daily activities. Her performances are based on her practiced knowledge, which she may be even not aware of. An expert car driver does not feel that she drives a car, instead, she feels the task of driving because she becomes the one with the car. From this explanation

of Dreyfus brothers, the notion of expert user is very close the embodied person who is focused on the task rather than the object. Thus, an expert user with the acquired specific skills performs the techniques of the body which leads her to be embodied.

Consequently, Mauss' techniques of the body include the notions of skill, tacit knowledge, and expert user, which are also closely and strongly related to each other. Techniques of the body is the knowledge of people on how to use their bodies while performing certain tasks. This knowledge also depends on knowing how, the practical knowledge stored in bodies and muscles, which in the end of learning process, leads to a skilled practice and expertise of the practitioner. As the person gains expertise through skill acquisition in alignment of practical experience, she performs most appropriate movements for the sake of the task. As she becomes expert, her embodiment process becomes deeper. Expertise brings her exhibiting embodied movements skillfully while she even does not notice the motives of the movements. She as her being-in-the-world concentrates on the task and the artifact becomes transparent as she sensorially connects and embodies. Her mind and body are together, and she becomes a whole with her environment.

At the intersection of skill, tacit knowledge and expertise, camera operator seems to be a *skilled practitioner* who pursues her embodiment in her Lifeworld. Have worked as a camera operator, I can state that camera person passes through a learning process of mentor-protégé relationship as well as hands-on practices to become a camera operator. Through this process, she acquires her skill, tacit knowledge, and expertise, which helps her to sediment embodied knowledge in her body. In this regard, this thesis uses the notion of skilled practice as integrating the expertise and tacit knowledge into it, while skilled practitioner is accepted as both skilled and expert.

2.4 Exchanges Between Phenomenology and Techniques of the Body

Phenomenology as the exponent of mind and body unity of the human beings as stating the inseparability of the person from the world she lives and interacts in, has

close relationships and accordingly crossovers with techniques of the body. Since embodiment accepts bodily engagements as the core of the meaning making process and puts emphasis on the interaction processes on the way of embodied being-in-the-world, its relationship with the technique of the body which relies on the specific ways of humans using their bodies is clear. However, this connection has not found much interest in the literature apart from few attempts that investigate the embodiment of skilled bodies through skilled practices. In this regard, as discussed in Introduction Chapter, anthropologists Tim Ingold and Sarah Pink show remarkable attempts concerning the intersection of phenomenology and techniques of the body. Especially, Tim Ingold's understanding of skilled practice which is given in this chapter exhibits the interconnectedness of skilled bodily techniques and the embodiment of human being. Ingold (2000) examines the notion of embodiment as the development process of human being in her Lifeworld. In this development, human being is practically involved in the world. She thinks, perceives, remembers, and learns in the world. According to Ingold (2011), humans upskill themselves through deployment of attention and response. Through these skills that they unfold during engagements, they embody themselves in the world. Thus, we can interpret that embodiment for Ingold is the way of human body skillfully and actively engaging within the Lifeworld while following her own technique of the body.

Sarah Pink also efforts to meet embodiment and techniques of the body. In one of her studies, Pink (2011a) investigates the performance of bullfighters. She especially underlines the acceptance of phenomenology, of which the source of knowledge is the embodied experiences instead of the rationality of the mind. Thus, her approach to understand the technique of bullfighting passes through understanding the embodiment process of the bullfighters. Because knowing is not something only received through spoken words, it is also embedded in the body and the body exhibits the knowledge as embodied. Embodied body is a part of the environment in which she deploys her skills through performances, but Pink emphasizes, the body itself also passes through a transformation in those engagements. Thus, bodily activities are not one directional, they happen in a relationality in the Lifeworld. Within this

relationality, the actions also happen as connected to the flow of engagement rather than pursuing a fixed plan in the mind. Therefore, bullfighters exhibit the technique of bullfighting in the spontaneity of the process. The transformation of bullfighter in this process is not simply a change of mind or a fixed movement, it is rather an evolving process within the interconnectedness of the Lifeworld. Here, Pink underlines the notion of *place* as accepting that it invites the engagements as the part of Lifeworld. According to Pink, place is not something pre-exists that we go and come back, it evolves during our engagements and movements within it, and makes sense and has meaning for us because of our connections with it, which means more than locality. Thus, Pink brings technique of the body and embodiment together, as she understands both notions are engaged each other in an inhabited Lifeworld. Technique of the body exhibits itself through the embodiment, and the person lets her skills and bodily movements flow as she is embodied in the relationality and interconnectedness of Lifeworld.

Besides Tim Ingold and Sarah Pink who are from anthropological tradition, Nick Crossley as a sociologist also studies at the intersection of embodiment and body techniques. Similar to anthropological interest in embodiment, Crossley (1995) also mentions the tendency to study embodiment and body among sociology scholars. In one of his earlier studies (1995), Crossley interrogates the relation between Mauss' technique of the body and Merleau-Ponty's intercorporeality. Here, Crossley is interested in intercorporeality instead of directly the notion of embodiment. Intercorporeality, as I deduct from the phenomenological understanding, is a dimension of embodiment in which a person bodily engages and releases her bodily techniques in the network of other bodies. Due to his sociology background, Crossley examines intercorporeality mostly from a sociocultural dimension. According to him, our techniques of the body are formed and then exhibited consistent to the others that we interact within our Lifeworld. This is how we embody ourselves and pursue our techniques in the intercorporeality of the embodied others. Thus, the ways of using our bodies are connected to other bodies that exhibit specific techniques.

Crossley continues to study at the intersection between body techniques and embodiment in his following articles. He pursues after the notion of embodiment in sociological context. According to Crossley (2007), Mauss' concept of body techniques helps sociology to go beyond the current understandings on body of sociological tradition, which mostly tackle the representational aspect of body in the society. Through body technique and embodiment, we can understand the bodily interactions and then human practices, engagements, and behaviors. As Crossley states, even though sociology is not interested in Cartesian mind-body dualism, it still views human from the outsider's perspective. However, phenomenology suggests the other way to see from insider's perspective and accepting human as perceiving and perceptible, and sensible and sentient. In this perspective, human body is the source of what sociology is interested in, which are practices, interactions, and behaviors. However, Crossley still considers that the notions of embodiment and embodied being in the interconnected world are vast concepts to study human body in a concrete way. Thus, he suggests techniques of the body to understand human body and human embodiment in the Lifeworld. Techniques of the body offers to investigate human embodiment through a range of various practices and human activities. Crossley underlines, by the notion of techniques of the body, Mauss tries to go beyond the sociological understanding of the human body and analyzes the human knowledge and the meaning making process without pushing embodiment and bodily experiences into the background. Techniques of the body lets the notion of embodiment become visible and accessible in the sociocultural contexts. For example, studying the body technique of swimming by understanding the swimmer's way of using her body in her specific society, makes us understand the embodied nature of swimming practice and the embodied swimmer in her Lifeworld. The knowledge is open to be understood as its embodied and practical form.

After investigating the notion of embodiment through the technique of the body, Crossley (2015) carries on studying both concepts by focusing on musicking. Through body techniques, Crossley tackles the embodiment processes of music

players. According to him, examining the technique of musicking makes the embodiment of music players much more concrete and researchable. For instance, playing an instrument is a technique of the body, which requires a learning process. This process may not need a theoretical instruction from books, but it requires bodily engagement. Through bodily engagement, a player acquires skill, gains mastery and improves her dexterity over bodily movements. According to Crossley, the thing that a player acquires during this process is the embodied knowledge. Thus, the bodily technique of music playing comes through the embodied knowledge of musicking. Crossley also mentions the sociocultural aspects of this knowledge. A player in a specific society may develop different techniques to play the same instrument or a society may have a distinguished instrument and the knowledge to play it while other societies do not know anything about it. Besides, Crossley describes the techniques of the body as conventions, an agreement between embodied actors. Through this agreement, all the actors who play roles in body techniques coordinate their activities. This coordination happens because of the embodied knowledge and understanding of the person, who deploys the most appropriate activities and actions while performing the body technique.

To sum up, the concepts of technique of the body and embodiment encounter in the literature. Even though phenomenology and embodiment come from philosophical literature and techniques of the body was offered by a sociologist, these meetings tend to happen in the research area of anthropology by Tim Ingold and Sarah Pink. While Tim Ingold attempts to investigate the connection between two concepts through skilled practice, Sarah Pink mainly discusses the notions around relationality. Their attempts are valuable because of showing the closeness of body techniques and embodiment when bodily engagements during specific use contexts are considered. In addition to these two anthropologists, Nick Crossley, a sociology professor, puts a great effort on meeting these two concepts. According to Crossley, embodiment as a phenomenological concept is difficult to fully researched and exhibited. Thus, through the lens of body techniques embodiment becomes visible and understandable. Here, we can deduct that, technique of the body exhibits the

material aspect of embodiment at the interconnectedness of Lifeworld. Technique of the body is the way of using the body through embodied knowledge in a coordination with others. Consequently, the terms of technique of the body and embodiment are inevitably meet when a bodily engagement is considered.

2.5 Summary of the Chapter

Throughout this chapter, I have tried to give the theoretical framework and perspective of this thesis study. I started with the philosophical movement and method of phenomenology together with its prominent representatives. Husserl as the founder of phenomenology, Merleau-Ponty and Heidegger as the significant followers of Husserl and phenomenological movement, have crucial ideas and approaches in phenomenological area. Indeed, if each of these philosophers are desired to be completely understood, this thesis would not be enough to provide the capacity. Thus, each of them was given with their ideas related to the context and subject of this thesis study. In this sense, Lifeworld, embodiment, being-in-the-world, Dasein and related terms were explained in detail based on their relation to this thesis. Since phenomenological approach is the perspective of this thesis study, I tried to internalize phenomenology instead of simply adopting and mechanically applying it. Therefore, in this chapter phenomenology is examined as an understanding, not only a part of literature review.

In addition to phenomenology, postphenomenology was examined as another important theoretical path which affects this thesis study crucially. Postphenomenology founded on phenomenology and pragmatism at the same time, approaches human-artifact relation in slight a different way. It elevates the mediation theory and relationality, which opens new windows when tackling camera operating practice. The ideas of Ihde and Verbeek have strong arguments and correlations on analyzing camera operating practice in terms of mediation of technology and the reciprocal relationality of human-artifact relations.

Besides phenomenology and postphenomenology, this thesis bases on the notion of techniques of the body. In techniques of the body, skill, tacit knowledge, and expertise become important elements. These notions also help us to understand their relations to phenomenological perspective. As mentioned above, in the process of skill acquisition and gaining expertise, the user becomes gradually more relied on her bodily knowledge, which leads towards her embodying with the product and the environment. As becoming an expert, user knows internally how to react the challenges and arrange her bodily movements instead of looking for user manuals or descriptive information. Thus, technique of the body with its key notions has a relation to embodiment and they together influence this thesis study to a great extent.

Although, embodiment in phenomenological movement and the term of techniques of the body has studied in the literature separately, their encounter in the literature seems relatively few. However, their meeting is important. While phenomenology is claiming the unity of human being and her inseparability from the Lifeworld, technique of the body exhibits her knowledge on her bodily experiences in this entirety. Besides, skilled practice that is examined in a very close scope of the body techniques shows the expertise and the intensity of the embeddedness of the human being into this Lifeworld. Therefore, phenomenology and techniques of the body are significantly connected to each other, especially during a use process. This use process may either include an artifact or the person may use her own body as an instrument. Like that Crossley (2015) mentions the meeting of embodiment and body technique through musicking, in this thesis, I try to understand the nature of camera person-camera interaction as digging both the camera operating technique and embodiment process of camera operators. Like other bodily techniques, camera operating requires a bodily knowledge which comes from the operator's embodied being. Understanding this process will help this thesis to influence on understanding the use process in general. These two notions together let me understand the process in a holistic manner and provide me new perceptions on our use processes.

Therefore, among phenomenology, postphenomenology and body techniques, the notion of embodiment seems play the central role. Embodiment in this thesis is used

as a covering term concerning being-in-the-world, state of Dasein, connected to the artifact as ready-to-hand, performing the skilled practice as an expert, and becoming an entity with the Lifeworld. Thus, when I say embodiment throughout this thesis, I refer many notions as a whole and intermingled to each other strongly. As embodiment occurs as a very key concept in this study, its effects on design studies become important, which will be discussed in next chapter.

CHAPTER 3

EMBODIMENT AND TECHNIQUES OF THE BODY IN DESIGN LITERATURE

The extent of embodiment in design studies and its intersection with camera operating are important for this thesis study. Since this thesis is interested in the nature of camera operating practice in multicamera systems, phenomenology and accordingly embodiment help me to reveal this nature as making me understand the interactions between user and equipment. In addition to embodiment in design studies, investigations on body techniques and skilled practices in design also help me to coordinate myself while studying the vague and vast term of embodiment throughout the thesis. Therefore, this chapter analyzes the theoretical background of this thesis in design studies, which would create a path for the implications of this thesis study.

3.1 Traces of Phenomenological Understanding and Embodiment in Design

Phenomenology and more specifically embodiment have raised interest in many disciplines including design related ones. As Van Dijk and Hummels (2017) state, theories related to embodiment open a path for designers to understand the solid relationship between human being and the artifact. This relationship includes material and immaterial at the same time as a manifestation of the togetherness of lived experience in the Lifeworld.

Phenomenology seems to be introduced to the design field through the notions of *embodied cognition* and *embodied interaction*. Phenomenological understanding finds a place for itself in the third wave of HCI. Gunkel (2018) mentions, previous methods of HCI research tackles from a Cartesian point of view and accepts the

characteristics of the interaction as a result of the object-subject duality. He describes the first wave as the control of human being on the computational mechanisms, in which the issue is optimization of the problems and solutions between humans and machines. Moreover, second wave shifts the significance from a total control to a coupled understanding of human and machine. In this understanding, the flow of information into and out from the machine becomes important. Nevertheless, this second wave still focuses on the dichotomy of human subject and computer object. However, Gunkel (2018) continues, third wave of HCI promotes the interaction itself instead of that duality and accepts this interaction as reciprocal relationality. Thus, instead of the capability or superiority of the components of the interaction, third wave of HCI emphasizes the situatedness and relationality of the interaction, which makes the relations prior to the relating components.

Here, before continuing with the notion of *embodied interaction*, which is used to explain this situatedness and relationality, we should open a parenthesis for the term of *embodied cognition*, which comes from the cognitive sciences. Since some researchers who are influenced by cognitive studies may use the term of embodied cognition to explain their embodied understanding, I consider it is necessary to put a brief paragraph on embodied cognition here. Since phenomenology has become an influential theoretical framework also for cognitive sciences, standard cognitivist understanding has been challenged by embodied understanding (Gallagher & Zahavi, 2008; Marshall & Hornecker, 2013; Shapiro, 2011; Varela et al, 1991). Shapiro (2011) describes this standard cognitivist understanding as the computational theory of mind which accepts that the mental processes base on algorithms and symbolic representations. According to cognitivism, cognitive tasks start with an input coming into the brain and ends with an output from the brain. Varela et al. (1991) state, in cognitivist approach, the brain works like a computer, in which the physical changes during the procedure can be named as computational. Computation is the operation of symbols that represent what they stand for. However, this standard understanding of cognitivism has been challenged by different approaches. One of the challenging approaches is embodied understanding.

Varela et al. (1991) explain that the term of 'embodied' reveals the cognition depending on the experiencing body with sensorimotor capacities and embedded in the context that the experience takes place. Thus, perception comes from the action and the action follows the perception, which creates the continuous loop of embodied cognition. In this sense, embodied cognition can be understood as rejecting the dualist aspect of cognitivism and promoting the togetherness of human mind and body. However, Paul Marshall and Eva Hornecker (2013) find the phenomenological effect on *embodied cognition* much more implicit when it is compared to *embodied interaction*. According to them, embodied cognition is still connected to cognitivism even though it challenges it in many ways. Embodied cognition adapts, expands, or replaces some aspects of cognitivism to respond problems caused by the duality. These responses include the works that underlining the extension of cognition beyond the skull and integrating physical movements and the elements in the world into the system. Furthermore, some studies accept cognition as a dynamic model together with the brain, body, and environment. Although the latter ones have closer connections with phenomenological understanding, embodied cognition still bases on cognitive models and puts the emphasis on cognition, not the embodiment. Either rejecting or following cognitive models, embodiment has found interest in design studies. And, even though, this thesis study does not cover the study area of cognitive sciences, phenomenological traces in cognitive sciences may have overlappings with phenomenological approach in design studies.

If we return to the notion of embodied interaction, Dourish (2001) in his book *Where the Action is* discusses the tangible and social interactions which lead to the embodied interaction in the scope of phenomenological approach. In this regard, he mentions the mutuality between tangible interactions and social computing that can be manifested as embodied interactions. He presents these common patterns in three elements. First, embodiment stays in the center. It is embedded in daily life and mundane activities. In this sense, embodiment founds the meaning, theory, and action of our experiences. Second, tangible interactions and social computing both focus on the practice of everyday engagements. Action is tackled as the source of

our understandings; thus, we are not simply embodied in the world, but the world also forms the interconnected site of our engagements. Third common point presents that the source of our meaning making process comes from our embodied actions. As phenomenological account claims, the artifact that we interact finds its meaning through our interactions with it. All these three commonalities that Dourish underlines are closely related to each other in terms of the connectedness of body, Lifeworld, and perception. Hence, Dourish attempts to investigate the place of embodied understanding and interaction through integrating its extensions in tangible and social contexts. He mentions in which ways embodied understanding and can be established and how its foundations can be created.

Dourish's ideas have been developed by design researchers as centralizing different terms and as focusing on different facets. For example, some researchers are interested in the tangibility of the embodied interaction. Indeed, before Dourish, the notion of tangible user interfaces (TUI) was offered by Ishii and Ullmer (1997). They describe TUI as a system that couples the real physical world with the digital information area. By doing this, they aim to make the digital world ubiquitous and invisible, in which we as humans are aimed to be immersed. With their ideas, Ishii and Ullmer opened an area for the researchers to understand and promote the physicality of the interaction and the unity of interacted worlds.

For example, Hornecker (2006) as one of the researchers who are interested in tangible interactions, asserts that by mentioning embodied interaction, she refers the tangibility, physicality, and materiality of the interaction, in which the fleshliness of human body plays the leading role. She accepts tangible interaction as a broader term which also covers embodied interaction. According to her, tangible interaction is nourished from various disciplines including HCI, computing, product design or digital interactive arts. Among these disciplines, she mentions tangible interaction in three views which promote data, movement, or space. Data-centered view comes mainly from computer sciences and promotes the digital data and its manipulation, while movement-centered view is nourished basically from product design as underlining the bodily performance of the interaction process. Space-centered view

comes from architecture or digital arts emphasizing the embedded interactions in the real-time spaces. Considering these three views Hornecker offers her own framework of tangible interaction through four different themes, in which she seeks for the physicality of human body. These themes are tangible manipulation -the physical bodily manipulation of solid product-, spatial interaction -the interaction happening because of the bodily movement in the environment-, embodied facilitation -the arrangement of the artifacts in the environment which influences the user behavior- and expressive representation -symbolic virtual representations found in human computer interaction systems-. Consequently, Hornecker as inspired by and informed from phenomenology, attempts to provide a theoretical framework leading to a broader understanding on physicality of tangible interaction.

In this regard, in their papers, Hornecker and Buur (2006) do not only repeat the three views in tangible interaction and the themes that were offered in Hornecker's paper, but also, they expand Hornecker's proposals, and mention the main concepts that structure those four themes. According to the authors, tangible manipulation includes haptic direct manipulation, lightweight interaction, and isomorph effects. The theme of spatial interaction covers inhabited space, configurable materials, non-fragmented visibility, full-body interaction, and performative action. Furthermore, embodiment constraints, multiple access points and tailored representation establish the theme of embodied facilitation. Lastly, representational significance, externalization and perceived coupling are found in the theme of expressive representation. By using these themes and the concepts that they include, the authors aim to provide a better understanding on tangible interaction and a better analysis on the social aspects of tangible interaction.

In addition to Hornecker and her team, Fishkin (2004) is a tangible interaction researcher who examines embodiment as one of the axes of his taxonomy while studying the tangible interaction frameworks. Fishkin explains the nature of tangible user interaction, in which the user puts the input by manipulating the physical object, the computer system notices the input and changes its situation according to it, and the system gives feedback to the user. Considering this description, Fishkin tackles

embodiment as an essential element of tangible interaction. Under the dimension of embodiment, Fishkin proposes four levels of embodiment according to the spatial proximity in the embodiment context. The full level of embodiment refers the case in which the input device is the output device. For example, if user physically manipulates the device, the device itself alters accordingly. Second level of embodiment is the 'nearby', in which the output occurs nearby the input device. In this level, manipulation of the physical object shows itself not directly on the object, but somewhere very close to the object. Third level of embodiment dimension is the environmental one. In this case, output of the manipulation process presents itself around the user through the environmental ambient of the interaction. The change in the environmental light or heat are examples of this level of embodiment. Finally, the embodiment may cause a distant presentation of the alteration in the system. Here, manipulation of the user creates the output far from the manipulated object.

Furthermore, Fishkin et al. (1998) mention the transformation of tangible user interfaces into embodied user interfaces. According to them, user interfaces starting from keyboard user interfaces have developed towards an invisible character passing through graphical UIs, gestural UIs, tangible UIs, and finally embodied UIs. This development results in more transparency of the interface, more directedness of the interaction and more coincidence between the user input and system output. Especially the aim of transparency of the interface underlines the relation to Heidegger's ready-to-hand concept and the transparency of the artifact while focusing on the task. Here, Fishkin et al. assert that, in order to achieve the real-world experience of a task, embodied user interfaces offer the closest experience of digital systems which makes the mediation invisible. This can be achieved through the embodiment of the task in the device, the coincidence of the input and output in the device, and the specificity and the familiarity of affordances that the device provides. In this context, the authors offer a set of design principles. First comes the embodiment principle which refers the embodiment of the task and manipulation in the same object or in the same interface of the operation. The user affects the alteration on the device directly by manipulating it. Second principle is physical

effects principle, in which the designer offers a set and choice of manipulations for the user. The manipulation should be consistent and appropriate with the task which is aimed to be accomplished. However, if there is no appropriate physical motion for the manipulation, the metaphor principle comes forward as the third principle. So, manipulations appeal to the metaphors coming from different areas of real world. Fourth principle is the kinesthetic manipulation that refers the kinesthetic motions of the user including her comfort, her using hands, and the context that she operates in. Fifth principle elevates sensing. To create a working interaction, the device needs to sense the input. However, in embodied user interfaces, the sensors also should withdraw. The last principle is the communication principle, because the embodied user interfaces also mediate the dialog between the user and the device. The transformation process of input to output, then feedback shows the reciprocity of the interaction. Consequently, Fishkin and Fishkin et al. deepen the concept of embodiment among tangible interactions and offer embodied user interfaces as a new paradigm that elevates the embodied task through the transparency of mediation.

Besides Fishkin and his team and Hornecker and her colleagues, one of the communities within design researchers that is interested in the embodied understanding and tangible interaction is TEI- tangible, embedded and embodied interaction scholars. As Hummels and Van Dijk (2015) express, the TEI community stays at the intersection of many disciplines with the aim of developing viewpoints and offering creative and inspirational research areas. Accordingly, researchers who stay among TEI community provide various conceptual, theoretical, design or implementation frameworks. For instance, Van Dijk et al. (2013) try to start a discussion considering the priorities of TEI researchers. According to Van Dijk et al., design-oriented perspectives would provide richer opportunities for TEI in terms of intertwining the physical and digital worlds through the concept of embodiment. Instead of looking from a pure technological point of view and understanding tangible interaction as the system of physical and digital, in which physical objects only play the role of representing digital images; Van Dijk et al. propose an embodied perspective which supports the idea of mutual interaction and meaning

generation of physical and digital through deeply understanding the human life. This perspective also researches for the new possibilities of digital computations for embodied being-in-the-world. Thus, Van Dijk et al. open a window for designers to re-interpret tangible and embodied interactions, which may lead them to be immersed in phenomenological understanding.

Taking these theoretical understandings into consideration, it would be supportive to investigate a case study concerning tangible interaction. Therefore, I wish to present an example examining tangible interaction in the cockpit designs of aircrafts. In this regard, the study of Letondal et al. (2018) shows us the integration of phenomenological understanding in tangible interaction design. The authors pursued a field study in cockpit environments focusing on interpreting pilots' activities through their embodied being-in-the-world. Then, accordingly they offer design principles through that embodied understanding. The effort they presented in this study and the findings they reached are the closest devotion to my PhD study when considered the literature review that I conducted for some years. During their field study, Letondal et al. observed and interviewed the pilots. According to their studies, they identify the characteristics of the pilots' activities, which include bodily sensations, communication, embodied repeating action patterns, anticipations, and embodied space. Within these observations, authors ask phenomenological questions concerning sensorial bodily perception and action, and the status of pilots in terms of their awareness and control. Here, Letondal et al. make deeper investigations on embodied space, outer space, the extension of the body into the sky, the technology as the extension of the body, the distributed and shared space of cockpit, the level of awareness, predictions and anticipations, intentions, and control. Through these discussions and investigations, authors provide a set of design implications and frameworks for future studies. These implications root from the field study and suggest design ideas supporting the new being-in-the-world of pilots as being-in-the-sky. In their new Lifeworlds, pilots seek for designs that save time and effort as they embody themselves quickly. Thus, according to the authors, the pilots need a balance between touch-screen digital elements and tangible real-world manipulative objects

which elevate their sensorial connections. This would help their control and awareness during the flight since they would get better feedbacks from the artifacts. Besides, since they are also in a social embodiment, they look for designs that reinforce their distributed embodiment with other flying crew in terms of communication and speech. The interactions with the tangibles and the crew lead to a spatial interaction as following the rhythmic patterns of interaction. Thus, Letondal et al. also suggest that the design proposals need to support these embodiment processes. Consequently, this study published by Letondal et al. is the most related work to the one that I wish to accomplish in my thesis study in terms of investigating a task from a holistic perspective and examining embodiment as the natural process that occur in user-artifact interaction. Even though they research the embodied interaction in a different context and in the field of tangible interaction, their attempts of integrating phenomenological understanding and enquiring this perspective in real human-artifact interaction approximate their research to my intended fieldwork as providing me a rich understanding on theory and methodology.

In addition to the studies around tangible interaction, human body and bodily movements play another central role in embodiment in design studies. For example, Klemmer et al. (2006) assert, human bodies have a great importance on perceiving the environment and shaping the human-artifact interactions as well as forming the bodily experiences. Since human body is playing a crucial role in the interaction, the authors suggest five themes that support bodily engagement to create successful interaction systems. They are namely thinking through doing, performance, visibility, risk, and thickness of practice. According to Klemmer et al., thinking through doing is about the togetherness of human mind and body and it promotes the importance of bodily activities in understanding of human perceptions. Under thinking through doing, the authors include many aspects of interactions such as thinking by tangible manipulations, gestures for expressions, learning through doing, gathering epistemic knowledge through bodily activities, and physically representing the actions of real world. Second theme that Klemmer et al. suggest is the performance which is interested in the capability of skilled human body. Here, the

expertise of the users comes foreground, and it becomes important that how expert and skilled users integrate the artifact within their bodies, or how they extend their bodies through the artifacts they use. Under this theme we come across with skilled actions, muscle memory, tacit knowledge, reflexes and manipulation, and feedback through sense of touch. Thus, the theme of performance has strong connection with technique of the body that was given in Chapter 2 of this thesis study. Visibility is another theme which promotes the actions to be seen by other people in the performance context. According to the authors, this approach elevates the collaboration and cooperation among colleagues, and it even results in a situated learning such as learning through being mentored. Thus, the theme of visibility supports a distributed and collective embodiment and suggests design processes and solutions which reinforce this sociality. The theme of risk also relies on the contextuality and sociality aspects of embodied interaction. This theme is about the environment that always includes unexpected challenges during human-artifact interaction. At some risk, people tend to pay more attention and take more responsibility through committing more to the task. The theme of risk can be interpreted together with the need of awareness and control that were mentioned in the tangible interaction part. If there is a risk in the environment, we tend to minimize it by relying on our personal resources. Finally, Klemmer et al. propose thickness of practice as the fifth theme. It favors the processes including bodily experiences when compared to pure digital simulations because embodied interaction is related to physical and tangible experience. The authors claim that designers have much to learn from physical world for integration into the digitals, in order to maintain a balanced embodied interaction design.

The issue of human body is also discussed by Schiphorst (2009) in her doctoral dissertation. She puts human body in the center of her study and investigates the experience models through application of somatic and performance studies into the design. She consults phenomenological understanding to investigate embodied interactions through somatic body-based performances as resources for design. In addition to phenomenological discourse, Schiphorst also pays attention to the

concepts of skill and experiential knowledge while investigating the bodily experience of users. Within this theoretical framework, she gathers data from different case studies to provide insights and implications for design studies. As establishing insight for technology design through integrating somatic facilitation on these case studies, she follows the practice of somatic connoisseurship. The term of connoisseurship here refers the expertise but together with the self-awareness and self-knowledge of the embodied being. In the case studies enquired in Schiphorst' thesis, connoisseurship has a leading role on the design processes. Besides, this approach reflects on the achievements of Schiphorst' thesis. Schiphorst evaluates the somatic body-based approach in technology design through the case studies she conducted. In this process, somatic connoisseurship provides better identification of needs and leads to a more fulfilled and transparent technology by developing attentional awareness and skillful reactions.

In addition to the body itself, the notion of bodily movement that emerges from embodied experience is also investigated by Hansen & Morrison (2014). The authors are interested in what the movements are as well as how they are articulated. They tackle bodily movement as a material of design process and a design input. The process of their becoming meaningful performances also interests Hansen and Morrison. The meaning created through bodily movements makes us reflect on embodied understanding; the movement needs body and physical embodiment to create a meaningful embodied interaction. Bodies communicate through movements and these movements need to be abstracted in order to become input data for design processes. For this abstraction, and finally receiving the data in digital versions, the authors propose a schematic approach to understand the bodily movements in detail. Besides, with this schema, the qualities of bodily movements are identified to reveal the structure of meaning making process. These qualities are namely velocity, position, repetition, and frequency. Velocity gives information about how a body part moves and how the action is achieved, while the quality of position is interested in which part of the body moves relative to the other parts of the body. Repetition asks about whether the movement is single or repeated, and if it is a repeated action

then frequency focuses on how often it occurs. With the identification of these qualities, Hansen and Morrison propose a tool for visualizing movement data. This tool provides graphical visualizations and interactions for designers to make them see and compare the data of movement with the videos of the movements, and then to help the designers to manipulate the visuals through altering the parameters. This elasticity helps designers to link visuals with actual bodily movements and in each attempt, the movements become re-embodied through relational dynamics. According to the authors, this approach keeps the bodily movement as a living organism and enriches the possibilities for designers.

Like Hansen and Morrison, Svanaes (2013) also pays attention to bodily movements and their integration to design processes as a design input. As following phenomenological lived body and accepting the fact that we are as humans live and interact in the world through our lived bodies, Svanaes is interested in the kinesthetic sense and its extensions in our interactions with tangibles. He claims, kinesthetic dimension of the embodied interaction has a strong potential both to be a part of designed product as inviting users for embodied interaction, and to be a part of design process to offer designers putting themselves in role-playings to understand what is needed by the users through enactments. Here, Svanaes focuses on the feel dimension of the kinesthetic sense, as putting designers into user position and elevating their understanding through first person point of view. This approach helps designers to 'feel' their movements, which leads them to pursue an active engagement with the product. In this way, they may design products by reducing the proximity to the end-users while increasing the transparency of the artifact and making users concentrating on the intended task. In this sense, Svanaes' approach differentiates from the previous studies given above because of its covering embodied interactions of both designers and users. By doing this, his study helps designers to understand the embodied nature of tangible interactions through letting them discover the use process of the artifact.

Similar to Svanaes, Höök et al. (2018) are interested in the first-person perspective of bodily engagement with the artifacts. They make the connection of

phenomenological understanding and the first-person point of view by mentioning Merleau-Ponty's concept of lived body. Merleau-Ponty uses the term of first-person lived body as 'leib' and third person observed body as 'körper'. Following this distinction, Höök et al. promote the first-person perspective in embodied interaction studies. Again, like Svanaes, the authors too indicate the 'feel' dimension of the interaction stemming from the direct experience with the artifact. The authors also approach to Svanaes in terms of focusing on somatic. However, Höök et al. expand their focus towards somesthetic and describe the somesthetic interaction as the living, sentient and perceptive engagement, through which an aesthetic appreciation arises. Either pursued by designer or the user, this engagement improves the skillful interaction, perception and the meaning making process. Accordingly, the authors aim to understand the design and use process within a workshop team through first-person point of view while creating somesthetic interactions. They present five different interaction design projects from various aiming contexts but uniting in focusing on lived body and bodily movements. Through these design examples, they draw the attention to the characteristics of first-person experiences as users and designers. Through benefiting these characteristics, they establish a research program, to which they also call for new attendances and discussions from the scholars.

As promoting the embodied understanding of phenomenology in design studies and researching it with different priorities such as tangibility, body and bodily movements that were mentioned above, scholars provide various contributions to design areas. In this regard, Hummels and Levy (2013) attempt to provide a holistic research and try to exhibit these possible implications of phenomenology on design studies. According to them, the area of design benefits from phenomenological understanding in four ways:

- First, the act of designing would receive encouragement for designers to discover new territories of designing through relying on their senses and explorative interactions. This process is also reinforced by their thinking and meaning making, which bases on engagements.

- Second, phenomenological understanding provides a new perspective to the interaction with designing systems, products, and services. In this regard, human-product interaction aligns with behavior and action instead of the current strand of cognition. Thus, embodied human movement creates a better fit with the human-product interaction when compared to the efficiency or optimization of the product from a cognitive perspective.
- Third, phenomenology would support design methods, processes, frameworks, techniques, and tools. These design inputs may create a transformation in design processes which leads to an enriched information gathering and creating systems as putting the holistic approach in the center.
- Finally, the fourth implication of phenomenological understanding on design studies is supporting the way of doing design research. In this perspective, the design research opens more towards the sociological contexts as well as to the complex situations.

As identifying these implications, Hummels and Levy (2013) themselves also contribute to design studies as offering an understanding of phenomenology that stands behind the design practice. In their study, the authors also ask about the alternative ways of engaging with the world. In these engagements, the authors seek utilizing our skills while uncovering new possibilities of benefiting technology and understanding our skilled bodies. According to them, our perception of the world roots from our interaction with it; thus, the meaning is created through the interaction. As opposing Cartesian duality, we do not comprehend the world in a sequence of mental representations and bodily actions. Instead, we understand it through our skillful coping, in which our bodies know how to react in challenged circumstances. Thus, they as designers emphasize own experiences of designers while creating embodied interactions. In this regard, Hummels and Levy promote first-person perspective of phenomenological understanding and support designers to understand the sensitivities of users through creating a resonance with their perceptions. Therefore, for their suggestions, Hummels ad Levy rely on the

embodied understanding theoretically and let us understand this embodiment- design engagement through skilled practices.

In addition, Cupchik and Hilsher (2008) tackle phenomenology as one of the theoretical resources that they consult during their research which analyzes personal meanings of designed products through a field study. Their field study and analysis are not paid attention here, but the way they examine phenomenology is interested in terms of elevating the coherence between designer's ideas and user's experiences. The authors primarily mention the notion of Lifeworld and its connections to the designed objects. According to them, designed objects are perfect examples of our lived-environments and the objectification of phenomenological ideas. Through designed objects we maintain our experiences within specific durations and contexts, which leads to embodiment followed by meaning. The meaning occurs through the balance of perception and action, and through the embodied experience. In this sense, Cupchik and Hilscher (2008) include creative activity within embodied experiences as artists sediment their doings and perceptions, and project them in their imaginations, which finally structures coherent experiences with perceptions. Thus, the authors call designers to experience the similar process of embodiment. They state that designers can create a use process that is anticipated through perceptions, and accordingly coherent to those perceptions. Here, designers may have the opportunity of holistic perspective of phenomenology as they broadly and deeply understand the needs of users, perceive the solutions through the conceptual design of the objects, anticipate the possible experiencing stories, and result them in objectification of the product that is meaningful and aesthetical. Here, the coherence of the imagined, anticipated and the created ones becomes prominent. Thus, as a result, the designed object is supposed to propose a meaningful personal experience to the user as it creates the connectedness with her. In this regard, the authors express designed objects are also holistic in terms of their integration of functionality as they fulfill the use needs, and subjectivity as they mean more than the affordance to the user. Consequently, Cupchik and Hilsher (2008) state, their approach support and align with the Vision in Product Design model that was suggested by Hekkert and

Van Dijk in 2001. Vision in Product Design (see Hekkert and Van Dijk, 2001, 2011) adopts the understanding of analyzing the current user-product interaction, identifying the reason and solution, envisioning the interaction through characterized products. Thus, the model of Vision in Product Design prioritizes the meaningful interaction between user and the product as Cupchik and Hilsher (2008) tackles embodiment as the source of this meaningful experience. In this context, researchers benefit phenomenology and exhibit its intersections with current design models.

Considering the implications of phenomenology that Hummels and Levy (2013) propose above, Poulsen and Thogersen (2011) tackles embodiment as an input of design thinking. They seek the possible roles that the human body play in design thinking and generating new design ideas. By doing this, they primarily refer the notion of lived body from Merleau-Ponty. They accept the body as our interaction surface with the world which also structures our lived existence within this Lifeworld. Thus, our bodies cannot be reduced to pure biological organisms, they are the source of our interactions and experiences which create the meaning. The thinking process happens with our bodies through our experiences, not just in our brains. By pursuing Merleau-Ponty's ideas, the authors try to identify design thinking through embodied understanding. According to them, design thinking does not purely happen in designer's mind, rather it is situated and embodied with personal experiences. To understand this process, the authors investigate the design thinking process of three designers while they observe a video snippet of a user group and a test facilitator. In this process, the designers go through focusing, reflecting, and reframing situations which make them embodied-in-the-world while understanding and solving the design problem. In addition, the authors' analysis presents that, designers use their tacit bodily knowledge while they communicate and pursue their design processes. The knowledge can be communicated through non-verbalized interactions and the body may exhibit engagements that may sustain the design understanding between the designers. Consequently, Poulsen and Thogersen (2011) underline the idea of lived body in design thinking process and exhibit the embodied and situated nature of designerly way of knowing.

Similarly, Peng et al. (2021) also examine the embodied understanding as a design thinking method, however they primarily consider embodied cognition when they mention embodied interaction. Since they view the embodied and situated nature of human-world relations from a cognitivist tradition, their approach and understanding focus mainly on the human perception. They concentrate on mind-body complex which does not only support the material exchange between mind and body, but also consider the relation between human and the environment. In this regard, the authors primarily refer to Maurice Merleau-Ponty and tackle his ideas on examining the human body as the subject of perception. According to them, this subject of perception is also embedded in the world through pre-reflective experiences. This is the way how the world opens itself to the mind-body complex and vice versa. Following this embodied cognition understanding, Peng et al. promote the theories of affordances and intuitive design as the intersecting solutions of embodied cognition and product design.

As discussed above, phenomenological research in design studies may present its understanding through design methodology as offering models, frameworks, or strategies. In this context, Mousavilar et al. (2020) offer a model for design process which is developed through the analysis of Heidegger's suggestion of temporality in hermeneutic phenomenology. The authors interpret this temporality through factuality -the parameters of design process coming from designer's prior experiences in the world-, the presence -the attentive actions that designer takes towards the present circumstances- and the futurity -the predictions and anticipations that the designer makes towards the better designs in the future. Mousavilar et al. stand from the designer's side and try to interpret phenomenology by keeping the designer at the center.

Moreover, Ehn and Linde (2004) also propose design strategies as trying to integrate the phenomenological understanding into design. They examine embodied interaction at the intersection of digital and physical objects as a design strategy to overcome the problematic of demassification that comes with the emergence of hybrid products. The authors accept embodied interaction as a solution towards the

fact that the material and social aspects of human-artifact interaction are exposed to lose weight. This is because, embodied interaction promotes the physical tangibility of artifacts everywhere in our daily lives, which spreads the materiality all over the spaces without being limited to desktop screens. This dispersion of interaction surfaces let people experience social interactions in new ways. Thus, Ehn and Linde (2004) offer their strategies for concerning these two aspects which are materiality and sociality. They underline their attempt for going beyond digital-physical divide through embodiment with the special concepts of mixed objects and esemplastic unity of the space. They materialize their design strategies through a research project that they conduct with students from design-related disciplines. The students are supposed to offer embodied interaction possibilities which elevate the physicality and the sociality through re-thinking the borders between the digital and the physical as well as between the object and the subject, which is consistent with the relationality and the holistic view of phenomenology. Despite their effort on re-thinking the design of hybrid products, the way that the authors tackle embodied interaction is different than the phenomenologists. By Paul Dourish (2001), embodied interaction is suggested as the explanation of the experience happening between the agents in Lifeworld, however Ehn and Linde (2004) tackle the term as a design strategy.

Van Dijk and Mitchell (2014) add on this understanding of hybrid products and approach the design of these products through co-embodied technology (CET). According to Van Dijk and Mitchell, instead of a direct mixing of digital and physical products, the approach of a careful design understanding is needed which is based on and supporting embodied being-in-the-world of the users. Thus, the CET approach of design is supposed to develop people's embodied sensorial engagements without restricting them in specific places. The authors aim to merge digital to physical and physical to digital through making one of them dissolving in the other instead of stitching them together. This understanding would create a design space elevating the lived body which is engaging in the Lifeworld as executing socially situated practice. As the authors criticize Dourish's approach that separates the

physical embodiment and social aspect of human engagements in the Lifeworld, they try to bring them together with the design understanding of co-embodied technology. As they are doing this, they try to combine the aspects of traces, social coordination, skillful tool use and scaffolding. According to them, people leave traces in the environment after their interactions, they coordinate social actions in their situated practice, they skillfully handle tools as extensions of their bodies while dealing with the world and they make meaning through the technologically created artifacts. Thus, through the combination of these aspects, Van Dijk and Mitchell propose the design space of the co-embodied technology approach which bases, sustains, and reinforces the situated and embodied nature of the engagements.

In addition to Ehn and Linde (2004), and Van Dijk and Mitchell (2014), Van Dijk and Hummels (2017) as scholars who research within TEI - tangible, embedded and embodied interaction-, also call these physical-digital artifacts as hybrids and try to make us re-think about the question that whether the distinction between physical and digital is necessary. Like Ehn and Linde (2004), Van Dijk and Hummels also attempt to go beyond this division. The phenomenological approach that they rely their studies on, provides them a holistic perspective of interaction. They try to re-consider the hybrid products through the lens of embodied being-in-the-world, which encourages them to reject Cartesian splits of immaterial-material and inner human-outer world. In this rejection, Van Dijk and Hummels (2017) point out the holistic perspective of phenomenological understanding including the embodied being of Dasein with its mind and body together, and her being-in-the-world which cannot be considered without the Lifeworld. In this regard, they propose seven principles in one design framework which reinforce the instant experiences as well as the long-term developments. This framework includes:

- Design principle for sustaining skills while accepting skillful bodily actions as inseparable parts of our embodied being.
- Design principle for structuring social coordination through understanding the fact that all of our actions happen in the foreground of social interactions and the objects that we manipulate are socially situated.

- Design principle for embedding in the Lifeworld as we are immersed in the interactions and experiences within our Lifeworld.
- Design principle for shaping and declaring identity through understanding the fact that skilled practices in our socially and materially immersed Lifeworld create our identities.
- Design principle for creating long term social relationships between people in addition to previously mentioned social coordination.
- Design principle for transforming the Lifeworld after understanding how we are embedded in it.
- Design principle for reflecting in and on of our actions through our embodied being in the world instead of the process of first thinking, then acting.

With these seven principles that support the embodied being of Dasein, Van Dijk and Hummels (2017) also exhibit their design projects. They show their two cases of design projects with students who are supposed to create design for embodied being in the world for autism spectrum disorder and dementia. In the first project, the design team together with the patient and his caregiver designed an interactive light system that is supposed to help organizing daily activities. The product highlights and takes the attention of the person in order to make him lead to the activity, which is also open to be transformed by the user; so, the user pursues a relational experience with the product. Second project is a design process for dementia patients and their caregivers. Four design solutions are suggested to support the instantaneous embodiment of the users focusing on different aspects such as timing, sociality, and sensorial connections. Through designing these artifacts, the authors structure their framework with seven principles in order to achieve and propose meaningful designs for embodied being-in-the-world. They reject the Cartesian dualism and offer an alternative design path for designers. Thus, they tackle embodiment in a manner of deeper interpretation of bodily engagements and try to go beyond either tangibility or sociality.

Besides Van Dijk and Hummels (2017), Ehn and Linde (2004), whose abovementioned study that benefits from phenomenological understanding to offer

embodied interaction as a design strategy, also provide various examples of design practice through the project that they test their design strategy. The participants in the project reconfigure and reorganize the artifacts and spaces in the studio environments through applying the concepts of mixed objects and esemplastic unity of the space of embodied interaction. This shows that an attempt of design practice elevating embodiment comes with a strategy related to embodiment.

Moreover, Szczepanska (2011) tackles embodiment as a design and research methodology which is specifically conducted in health design. According to Szczepanska, phenomenology is interested in various types of experiences that we go through in our lives which include perception, thought, memory, imagination, emotion, bodily activities, awareness, social interactions and speaking. Thus, the focus of phenomenology is our whole lives in our interacting worlds equipped with personal unique interactions. In this regard, concerning the context of health design, the author holds phenomenology as the research method to approach what having an illness means and how other people experience their own illnesses. Thus, she starts with a first-person perspective research as coherent with phenomenological understanding, which is later completed by other people's stories to integrate their experiences into the play as well. This phenomenological method leads her to design two different products which intend to support ill people's real-world experiences towards their health and wellbeing. Therefore, Szczepanska benefits from phenomenology both in design methodology and practice.

Consequently, as discussed throughout this section, phenomenology and accordingly the notion of embodiment have been studied in design related areas in various ways and as focusing on different aspects. In addition, the implications of phenomenology on design studies can also be seen in the examples that were given above. In this state of art, this thesis attempts to examine the use process of a designed object -the camera. I wonder how this current situation of phenomenological understanding in design would help me to understand the nature of camera operating. Besides, I also wonder how studying camera operating would nourish the studies of phenomenology and embodiment in design. I am also interested in the intersection of embodiment

that happens in camera operating experience and that specific technique of camera operating. Their investigation would expand our understanding of the professional use cases. Therefore, the studies on the notion of 'techniques of the body' in design studies requires an attention of this thesis in the pursuit of understanding the nature of camera operating practice.

3.2 Investigations on Techniques of the Body and Skilled Practice in Design

Besides the examinations of phenomenology and accordingly the notion of embodiment in design literature, this thesis also looks for investigations of techniques of the body in design.

For example, Nansen et al. (2013) tackle the notion of techniques of the body through the habituation process of bodily interactions. According to the authors, habits are our ways of engaging with the technology and the ways that we internalize our bodily actions. Our bodies learn and sediment the interactions, which in the end emerges as our techniques of the body. In this sense, our habits reveal the way we interact with the world, they reveal our embodied being in the Lifeworld. As Nansen et al. also (2014) indicate, the word of habitus is also used to conceptualize the nature of habit. The authors reveal it as culturally situated while examining the embodiment processes of everyday experiences and dispersion of bodily actions within the material world. For Nansen et al. (2014), habits are also reciprocal processes between the user and the technology that they interact with. Both the human and the technology adapt themselves to the other while they also inhabit each other. The authors call this process as reciprocal habituation which emerges through design, appropriation, and interaction. Thus, Nansen et al. (2013, 2014) accept human habits as an opportunity for design process as they promote the idea that designing for habituation. In order to design for habituation, Nansen et al. (2014) indicate the necessity for fully understanding the concept of habit. Here, the relationship between phenomenology and habit become prominent. Nansen et al. give Merleau-Ponty's

example of blind man's stick. Merleau-Ponty (1945/ 2002) mentions the blind man's stick to explain the internalization of an object which transforms it into an instrument that mediates between the user and the world. According to Merleau-Ponty, the stick works as an extension of the blind man's body, and it becomes the sensing area of touching and seeing. Sensing through the stick is sedimented in the body of blind man which leads the man to get used to the stick. Using the stick becomes a habit for him. Consequently, habit expands the territory of our being-in-the-world as transforming our beings for new accommodations in the Lifeworld. Thus, the habit is not only a form of knowledge, this knowledge comes also with the embodied movements. It happens between the perception and action, it cannot be detached from the bodily engagement, effort, and readiness. Accordingly, Nansen et al. (2014) indicate the importance of designing for habits which empower our relationships with technology. According to the authors, these design efforts do not only focus on usability but also on usefulness in our Lifeworld.

In this regard, Nansen and Wilken (2019) investigate the toddlers' use of touchscreens in order to attempt a design process for their habitus. The authors indicate the benefits of understanding habitus as the production and as the performance of bodily practices together with their acquisition, embodiment, and sedimentations in sociocultural contexts. Understanding habitus helps designers to create a theoretical framework for haptic media. For example, Nansen and Wilken mention the ways of toddlers' body use when they first encounter with touch screens. Instead of pre-planned and settled bodily engagements, young children tend to exhibit bodily actions such as jabbing, swatting, or licking. This is how they interact with the technology in the beginning, how they express their beings in their Lifeworld. Over time, they engage with the touch screens, they learn what their fingers need to do in order to achieve their goals. They accommodate their fingers into the pre-prescribed movements that have a response on the screen. This knowledge acquisition process re-shapes the toddlers' way of interacting with the screens and makes them adapt to a new interaction mode. This is how toddlers habituate the bodily engagement with technologies through sedimentation of

movements. The process of this habituation provides a significant benefit for designers who aim to create seamless experiences mediated by haptic screens. Learning capacities of the users and the gestural input gathered from them would help designers to design for developing skills, improving the interaction, and sustaining embodiment.

As seen above, the notion of techniques of the body in design literature is apparently connected to the notion of embodiment when especially the concept of habituation is the matter. The studies of Nansen and his colleagues show that design may directly benefit from understanding the notion of habituation and how it works in bodily engagements. Their referring Marcel Mauss and the notion of techniques of the body is valuable.

Besides the direct speaking of techniques of the body, design literature also covers the term of skilled practice as related to body techniques. As discussed in Chapter 2, skill is a primary concept when techniques of the body is on the table. Because as Mauss (1935/ 1973) states, techniques of the body includes the notion of habitus in which human beings adapt themselves to the situations in the Lifeworld. This adaptation requires skillful actions to maintain a competence on the task. As Ingold (2000) states, human being skillfully adapts herself according to the circumstances and performs the most appropriate skilled movements in the relationality of this practice. In this sense, Ward (2013) examines skilled practice through skilled movements and its theorization for designers when they are supposed to design digital musical instruments. In his PhD thesis, Ward investigates the quality of skilled movements of the users to be benefited in design process, with which he attempts to make a shift in digital musical instrument design which promotes the movement analysis of performers. In his attempt, he emphasizes the skilled movement as the primary actor without being overshadowed by the sound design. Consequently, in order to achieve his conceptual framework, Ward offers analysis perspectives for movements and experimental models for design processes. He starts with underlining the necessity of conceptualizing movement as a design input. Like concerning color or sound as a design material, movement should need to be

described properly and adequately before starting the design process. Therefore, Ward suggests a movement analysis model which is based on Laban Movement Analysis (Laban, 1950) that is for to be benefited during movement-based design process. The design process that he proposed for movement-based design includes four steps which starts with observation and analysis of movement. Then, movement is supposed to be explored. In third step, movement is devised. Finally, the product or the system is actualized.

Examining Ward's study as an example exhibits, in addition to the interest of design in techniques of the body through habituation, design literature also has attempts to understand skilled practice and skilled movements. Since skill and skilled practice are understood within techniques of the body, their appearance next to it is clearly understandable. Indeed, the notion of skill and related terms are not very unfamiliar for design studies because of the craft practices. Therefore, in design literature, there are studies concerning skill, skilled movement, and skilled practice, either mentioned alongside embodiment or not.

For example, Baber (2018) examines the design and making process of a jewelry through embodied cognition and skilled practice. According to him, this craft process happens not just in the mind of the craft worker, indeed, the artifact occurs through the constant relationship between the craft maker, the tool, and the material. The application of skilled practice includes the input from the sensorial connection of the jeweler during the ongoing work, and her muscular control and efficiency in sophisticated reactions to this information. Therefore, the process of jewelry does not solely rely on the cognitive process happening in mind, but it is also based on the embodied skilled actions of the craft worker. She understands, anticipates, and applies according to her dexterity, expertise, and creativity. In this example, we again come across with the coupling of skilled practice and embodiment. Skill needs unfolding through bodily actions while the task is coordinated and pursued in the process of embodiment of the skilled practitioner. Skilled practice occurs under the intermingled relationships of the user, tool, material, and environment which structures the embodied being-in-the-world.

In addition, Mann (2018) investigates the skill acquisition, skill performance and skill continuation processes through the task of lace knitting. Mann especially focuses on the core of the process instead of promoting the knitter as the only practitioner. According to Mann, the person is not the only agent in the process, nonhuman agents are significantly involved in skilled practices. In this sense, Mann follows Ingold's opinions and accepts the notion of skill as happening within a meshwork of interactions including all aspects and forces affecting the task. Similar to Ingold, Mann accepts the practitioner in an active and relational engagement within her surroundings. Thus, the skill is not buried in the practitioner, but it unfolds, develops and re-structures itself through this relationality. Accordingly, the artifact, which is acquired through this process, is not something that the practitioner pre-planned in her head, but it is something grown according to the circumstances of the journey which is plasticized by the skilled and embodied practice of the practitioner. Mann discusses this conceptualization process of skilled practice through the design and making process of lace knitting, which presents the strong bond between embodiment and techniques of body in craft making.

Like Mann, Taşdizen (2017) also mentions the skilled practice through knitting. In his thesis study, Taşdizen tackles craft making as an extended version of design practice. In this sense, trough designing and creating knitting patterns, the knitter makes knitting. As Baber, Mann and Ingold state independently, Taşdizen also indicates that this making process happens in a relationality of different factors that include the hands of the knitter, the knitting needles, and the yarn. Among these factors, Taşdizen focuses on the politics of the knitting practice as he conducts a field study within a knitting course, in which he also attends as a participant. Since, the participants attend the course to learn and develop their skills in knitting practice, the field study mainly concerns novice knitters. The design process of a pattern starts with its decoding, which makes the pattern visible and understandable cognitively and descriptively through numbers and descriptions. This makes the pattern ready for further applications according to the skill sets of the participants. This development process is also nourished from the skill acquisition of the novice knitter

who observes and imitates the expert ones. This acquisition process is inevitably social and cultural, which is consistent with the sociocultural aspect of techniques of the body. In this sociocultural context, a know-how is produced through the knitting pattern and knitting process occurs as iterative, social, embodied, and skilled.

To sum up, the notion of techniques of the body is examined by design researchers through the concept of habituation and alongside the concept of embodiment. Habituation is also related to skill acquisition and sedimentation of the knowledge in the body and presentation of this knowledge through skilled practices. Moreover, skilled practice is tackled through skilled movements as a more familiar concept under craft studies, as mentioning the embodiment next to skilled practice. Thus, according to Crossley's (2007) ideas that techniques of the body makes embodiment visible, researchable, and understandable; it also seems that techniques of the body may open an opportunity for design studies to internalize phenomenology and embodiment.

3.3 Summary of the Chapter

As discussed in Chapter 2, phenomenology, accordingly postphenomenology and techniques of the body structure the theoretical framework of this thesis study. Correspondingly, in this chapter, I have tried to discuss these theories in design literature. In this regard, the research examples in design that focus on phenomenology and mainly the notion of embodiment, and the design studies that are interested in the notion of techniques of the body have been presented throughout the chapter.

According to my literature review, phenomenological understanding and accordingly embodiment and the notion of embodied interaction -as connected to the third wave of HCI- has been offered to design studies by Paul Dourish (2001). The term of embodied interaction has both physicality and sociality aspects, which have been discussed in this Chapter. Embodiment and embodied interaction in design

seem prioritizing phenomenological understanding around either tangible interaction or body and bodily movement. Regardless its context, tangible interaction mainly discusses the materiality aspect and seems tackling the process slightly closer to artifact's side. On the other hand, body, and bodily movement path that tackles embodied interaction, stands mainly at the user's side by focusing on human body and her bodily movements. These studies put the human body at the heart of the embodied interaction and examine skilled movements and tacit knowledge within this theme.

In addition to the elevating certain aspects within embodied interaction, design studies seem to have main inclinations concerning the implications of phenomenology and the outputs of the studies. In this regard, design studies benefit from the phenomenological understanding for design theory, for design methodology and for design practice. These studies often concentrate more than one path. For example, a study that offers design methodology generally presents design practice suggestions.

Next to phenomenology, techniques of the body and accordingly skilled practice would be considered as complimentary theories for design studies. As Crossley (2007) underlines, techniques of the body would help the notion of embodiment to become understandable and researchable. In this sense, this thesis examines techniques of the body and skilled practice in design related studies to follow the fruitful traces of this possible coupling. In my literature review, I reached the investigation of techniques of the body through the terms of habitus, skill, and skilled movement. These studies mostly examine techniques of the body or skilled practice alongside the notion of embodiment. This is valuable, because it exhibits the potentiality of this thesis in the area for further investigations.

In this chapter, with the literature review in design studies concerning phenomenology and techniques of the body, I tried to reveal how design scholars approach to and benefited from the theoretical framework that I structured for this thesis study. In addition to this literature, this thesis also consults to the literature on

camera operating practice to explain the process to the readers in detail before passing to the methodology and field studies. In this regard, next chapter as the final segment of my literature review will serve as a transition part from theory to practice of this thesis study.

CHAPTER 4

DEEP DIVING INTO THE CAMERA OPERATING PRACTICE

After the chapters of theoretical framework and its reflections in design research, this chapter will serve as a transition from theory to the field studies. This is because, this chapter is interested in the camera operating practice itself. While presenting it, this thesis focuses on how this practice is described in the literature and relies on my own experiences and knowledge on camera operating.

Considering multicamera shootings, camera operating experience covers various elements and factors at TRT. Thus, in order to make readers understand the nature of camera use and what basically it means to be a camera person in multicamera systems at TRT, this chapter provides a descriptive perspective. Throughout this chapter, camera operating practice happening at TRT studios or in other locations that TRT broadcasts from, will be given in detail including descriptive elements of this occupational experience. Therefore, I aim to provide a brief glossary of technical and occupational terms that are strongly connected to the multicamera operating process at TRT and that will be encountered very often throughout this thesis study. Descriptions and information in this chapter are based on camera operating manuals from current publications on camera operating and my own camera operating experiences. In this chapter, I will start with the description of multicamera systems. Afterwards, I will examine this system through its elements. I will begin with the first element which is the equipment of camera in studio camera operating process together with its accessories and supporting systems. Then, I will mention the operational notions in multicamera systems. Besides, I will tackle the network of people that a camera operator is connected to and interact with. Furthermore, I will mention the environment in which a camera person performs her bodily actions. With the flow of this chapter, I aim my field study to be understood better and deeper.

Multicamera Systems

Video production ranges from operating low-cost consumer cameras as well as smart phones to using high-quality professional broadcasting standardized equipment. Either amateur or professional, either for cinema or for television, all visuals are produced by cameras that are used by the camera operators.

Since camera operating has a broad context covering news gathering, movie or documentary shooting and television production; it includes various operating descriptions for each case which may also differ in different cultures and societies. In case of this thesis study, I am interested in researching the practice of studio camera operating pursued in multicamera systems, which takes place either in studios or locations that are equipped with studio circumstances. This thesis also focuses on this type of camera operating at Turkish Radio and Television Corporation (TRT) in Ankara, Turkey.

In studio camera operating processes, camera people are supposed to operate studio cameras which are connected to multicamera systems. This means, a studio camera operator is embedded in a Lifeworld with other camera people who operate other cameras with different camera tasks; and in a greater level, in a Lifeworld with other broadcasting crew members whose mutual aim is to achieve the most appropriate visual image to be aired and broadcasted in a specific TV program. In multicamera systems, two or more cameras are used simultaneously to shoot a TV program from different angles. Each camera has a specific task which ends up in different visual frames, and it is the regie room -or production control room- in which the final image is selected for airing by the director. In case of shootings hosted by TRT, regie room is separated from the location that shooting takes place. In studios, it is a separate room and on-location shootings it is a remote truck – a mobile van equipped as a production control room. This room consists of various professionals such as director or vision switcher- these technical occupations will be listed in detail in following sections-. Director is the head of the shooting, and she can access to other crews via intercom which is the communication link among production crew members. In

addition, in TRT cases, following the explanations of Millerson and Owens (2008), multicamera productions are either real time shootings and they can be transmitted to the audience live, or they can be shot and recorded on tape from beginning to the end which is available to be polished in post-production and become ready for broadcasting when requested.

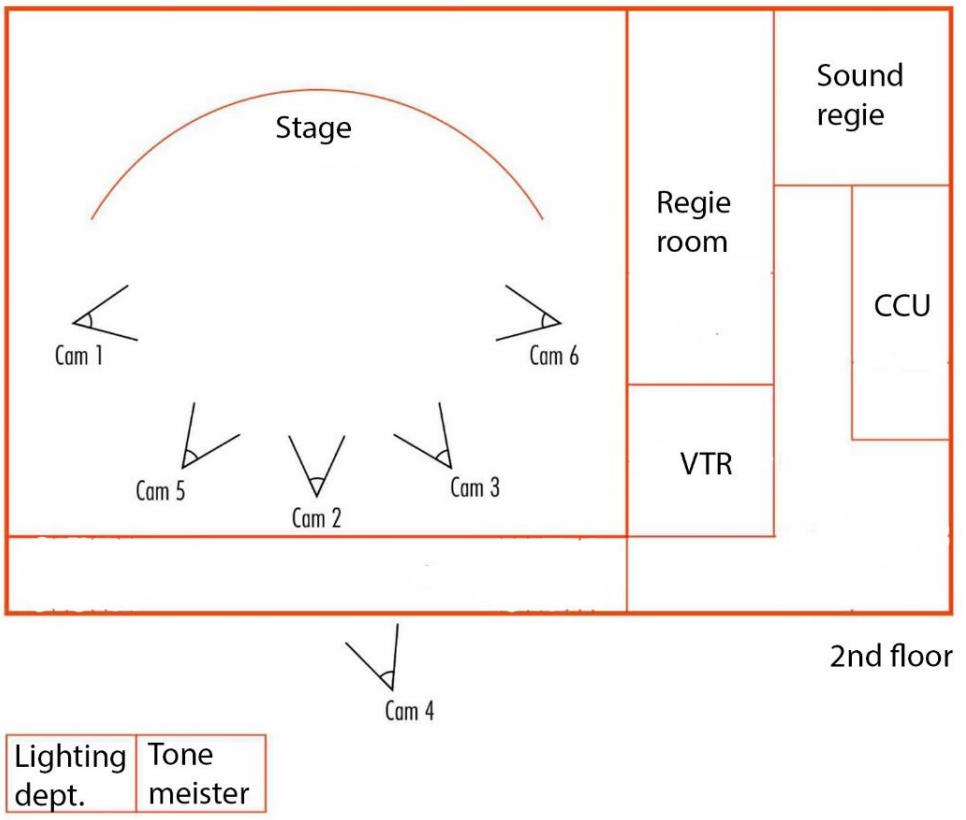


Figure 4.1 Basic floorplan and camera positions in Arı Studio, Ankara

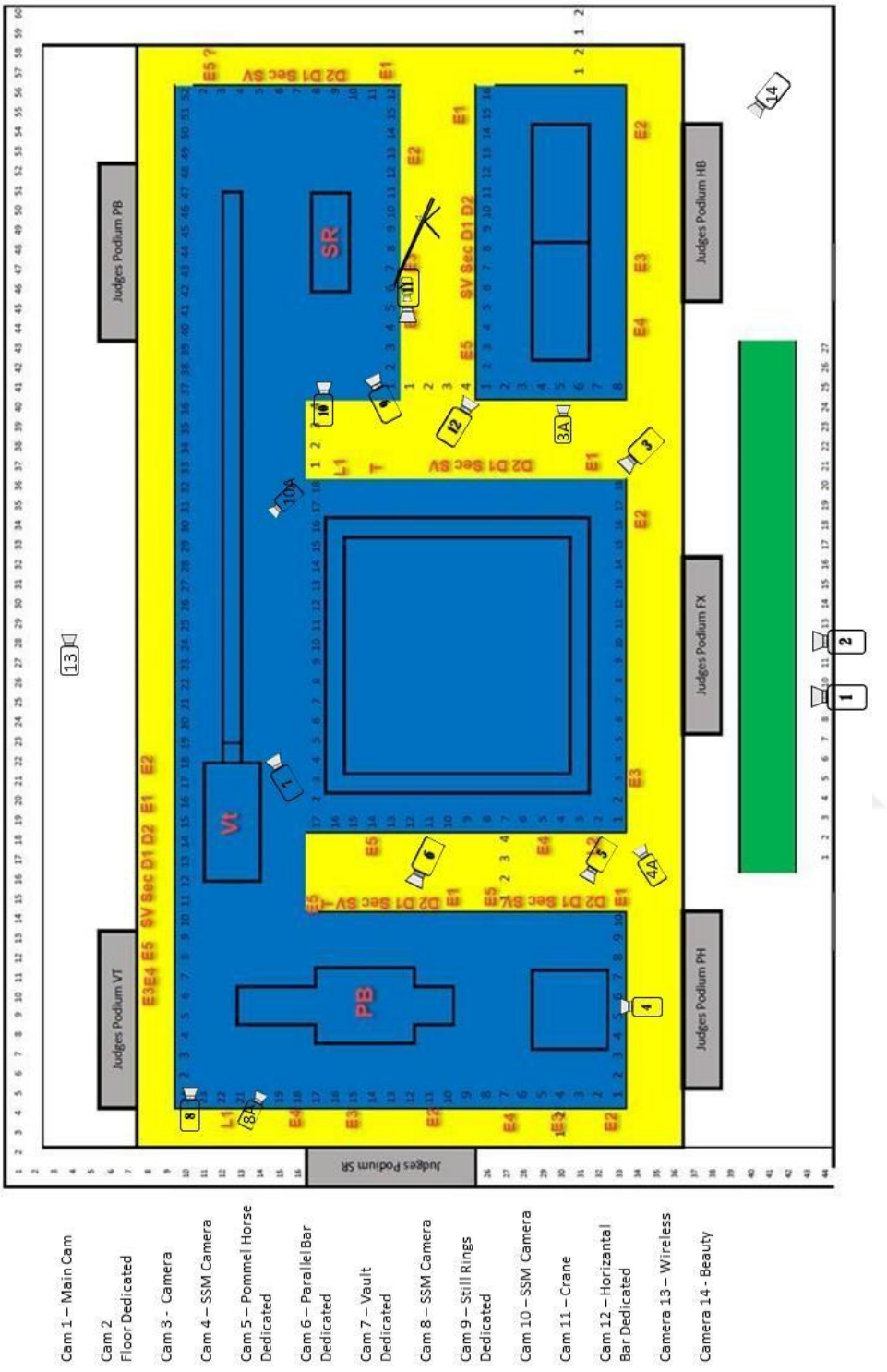


Figure 4.2 Floorplan and camera positions for 34th European Championships in Men's Artistic Gymnastics (Image: TRT)

4.1 Equipment which is involved in Field Study

Used in multicamera systems of TRT, cameras do not have recording units unlike in news gathering or movie shooting cases. As Millerson & Owens (2008) describe, studio cameras are mounted on heavy pedestals or other supporting systems together with heavy accessories such as monitor and zoom lenses. These cameras are linked to the camera control unit (CCU) with cable; and the picture quality is adjusted by a CCU specialist while the camera operator is responsible for the framing.



Figure 4.3 A camera unit of multicamera system in a football match (Photo: Ferhat Eryılmaz)

Cameras or other product lines used at TRT can change from one studio to the other. Different brands and different editions of the products can be seen in different studios

and remote trucks. However, each multicamera system consists of one type of product lines to catch, sustain, and standardize the broadcasted image quality. Thus, a camera operator working in multicamera systems at TRT can encounter and interact with different types of cameras, accessories and supporting systems in different productions.

Considering these varieties, in next section, camera and its accessories and camera supporting systems will be tackled to offer a general point of view for TV productions.

4.1.1 Camera and Its Parts

The tool of camera which is tackled in this thesis study produces visual images through a light-sensitive chip that receives the light from the lens system mounted in front of the camera body. This chip which is found in the cameras used at TRT is called as CCD (charge-coupled device) and is responsible to convert the light into electrical charges which are supposed to be read out as video signals. These video signals are displayed as visual images on the viewfinder -monitor- of the camera (Millerson & Owens, 2008). Considering the camera unit, lenses and viewfinders are the most operated and interacted parts.

Lenses are the optical units which gather the light and focus it on the CCD chip. This focusing process happens according to focal lengths. Musburger (2005) describes focal length of the lens as the measurement of the ratio between the lens diameter and the location of the focal point where the CCD faces. Focal length is usually given in millimeters and the longer the measurement means the greater ability to enlarge the subject, the shorter the focal length is the smaller the subject appears on the viewfinder. While operating the camera, camera person changes the focal length of a lens through zooming, and she adjusts the composition of the frame. Lenses that are used in multicamera production at TRT are zoom lenses on which the focal length can be altered. Lenses with smaller focal lengths are smaller in dimensions and called

as wide-angle lenses. On the other hand, lenses with greater focal lengths which are tele-lenses -with greater capacity of zooming in- are longer and heavier in terms of dimensions. Therefore, these lenses are supported by some mechanical entities and covered by a box, which makes them called as box-lenses. In addition to zooming, lenses include focusing and aperture adjustments, which will be given in the section of camera movements. Besides these three major controlling wheels, there are also other control buttons on the lenses which are used to set zoom, focus and aperture adjustments for automatic/servo or manual. In almost all shootings in multicamera productions, these adjustments are set to servo or auto.



Figure 4.4 A zoom lens with zoom, focus and aperture wheels on it (Photo: Ferhat Eryılmaz)

Besides lenses, ***viewfinders*** are one of the major elements of camera units that a camera operator uses all the time of her performance. Viewfinders are monitors mounted on camera bodies, and camera person sees the visual image created by the camera and then receives visual feedbacks of her bodily movements through viewfinder. Viewfinders also shows any changes in the image caused either by the camera operator or the outer elements such as the environment or other crew members who can have control over the visual image. In addition, through viewfinders, camera people can follow the image that is on air, or in rare cases she

can check which visuals are prepared for upcoming airing. On the viewfinders there are some control buttons or knobs to adjust brightness, contrast or peaking of the screen.



Figure 4.5 Viewfinder and its adjustment buttons of a camera on tripod (Photo: Ferhat Eryılmaz)

Besides, there are other software-based adjustments which can be operated through camera menu. These viewfinder controls change only the image on the monitor, they do not affect the image to be broadcasted. Thus, camera people can adjust these settings according to their preferences knowing that they do not alter the final image received by the audience. Moreover, on the viewfinder there are on/off button which is used to power the screen and tally preference button which helps camera person to leave the tally light -the red light which comes on when the camera is aired-

running or disabled. Tally light can also be controlled on camera body. In addition to the regular viewfinders that are mentioned above, there are greater or smaller monitors which are used according to the supporting systems that the camera mounted on. The places of these monitors can also change considering the camera supports. If it is a jib arm, there are two monitors placed one under the other located on the left side of the system. If the support is steadicam, then the monitor is placed lower than eye-level of the operator. Because the operator walks as looking down during the shooting.

Additionally, there are also some controls on the ***camera body***. First, there is an on/off and stand by button of the camera. Menu button is also a frequently used button which helps the operator to reach camera software menu. Besides, there is a ***control panel*** on the back of the camera which faces to the operator.



Figure 4.6 Control panel on camera body (Photo: Ferhat Eryılmaz)

On this panel headphone jack and intercom settings are the most and mainly used ones. Camera operator can connect to the other people in the broadcasting crew through the intercom system by using a headphone-microphone set. Intercom is a communication link that makes director and other crew members connect during the productions, so camera operator hears and talks to the director if needed with a headphone system which also integrates a microphone. Camera operators at TRT sometimes prefer to wear their personal headphones instead of the ones provided with the camera because of hygiene concerns. In this case, camera operators can hear the director but cannot talk to her, since personal headphones do not have integrated microphones. In addition to these controls concerning intercom system on the control panel, there are buttons adjusted to show return or prep images of the broadcasting. *Return* means which image is aired at that moment and *prep* refers the image which is about to be selected next. Camera people can also see return and prep images on the viewfinder by pressing buttons on the zoom handle. However, in TRT cases, prep image is not generally assigned to the software, thus, camera operators tackle mostly return button.

Camera body carrying lens and viewfinder on it, is attached to, and operated on camera supporting system. If this system is a pedestal or a tripod, camera body is connected to this system by a ***head*** which allows the camera to pivot and conduct mechanical movements such as pan and tilt (see section 4.2.2). On this head, there are also controls that camera operator handles very often. These controls are basically lock and frictions of pan and tilt movements. In addition, there is a total locking which prevents camera head from any tiny movements.



Figure 4.7 Head with pan and tilt locks (Photo: Ferhat Eryılmaz)

Throughout operating process camera person does not experience only the camera and its parts, but also supporting systems by conducting camera positioning and movements.

4.1.2 Camera Supporting Systems

Professional camera use can be distinguished from the amateur operating in terms of the image stability. It is important for the quality of the picture to have a steady and controlled image while using the camera (Musburger, 2005). So, cameras are needed to be supported while shooting the program and executing the movements in order to create the image as requested and to keep it stable enough for the production.

According to Millerson & Owens (2008) cameras are supported in three ways during shootings. First, the body of the camera operator works as a camera support during handheld shootings. Handheld shots are mostly performed as the camera on the shoulder, however in some cases camera person may hold the camera in different positions such as on her knees or as hugging the camera with her two arms. Second,

cameras can be supported by body mounts such as shoulder rigs or steadicam units to enrich the stability of the camera. Third, the camera can be mounted on tripods, monopods, studio pedestals or jib arms according to the required camera movements or image framings. Musburger (2005) asserts that even though most of these mount systems are expensive and large in physical dimensions, they provide a wide range of movement possibilities to the camera person.

In case of this thesis study, handheld camera operating, camera on pedestal and tripod, camera on jib arm, and camera on steadicam are the camera supporting ways that have been included while conducting the field studies. In this section, I will provide descriptive explanations of these supporting systems.

4.1.2.1 Handheld Camera Operating

Handheld camera operating occurs when there is a need for the camera to be active and mobile during the shooting. So, it is easy to change the position of the camera when it is not mounted on a supporting system. However, even if the image requires handheld framing, the shaky frames can disturb the audience unless the director specifically requests the shaky image. So, the camera is needed to be supported by the body and carefully controlled. This is not an easy process to be maintained, because even a small and lightweight camera makes the operator feel it heavier over time as the muscles get tired. Besides, all bodily movements including breathing and heartbeat affect the image as it causes the camera to move. The weather conditions and the shooting positions influence the quality of stability as well. In order to overcome these challenges, camera supports have been developed and used both in film and TV productions (Millerson & Owens, 2008).

Camera operator's bodily experience during the handheld use is different than the interaction when she uses the camera on a mount. Each mount, according to its positioning on or out of the body, also offers different bodily experiences, which will be discussed in following sections.

4.1.2.2 Pedestal and Tripod

Mostly and widely used camera supporting system in TV studios is ***pedestal***. Pedestals are produced with three-wheeled base and a central pneumatic column which allows operator to adjust the height of the camera even during the shootings. The wheels of pedestal help camera operator to move the product on the studio floor smoothly (Millerson & Owens, 2008). For the wheels, there are locks on the surface of the base. With the help of these locks, camera operator can disable the wheels to prevent the camera from moving or can lock only one of the wheels to change the axis of the base to re-position the camera. In addition, the wheels are covered by skirts which keeps the cables out of the way of the wheels, so the camera operator can pursue a smooth and even camera movement without getting tripped by the cables. Furthermore, on the pneumatic column, ped lock and frictions are the mostly used adjustments. Using the friction can create either a softer or tougher up and down movement of the pedestal, which is a pipe in pipe assembly, while the control of lock stops the up and down movement of the central column. If it is not locked, pedestal manages to continue the movement because of the pneumatic system; thus, if the air in the central column is drained away, camera operator or technical assistant needs to pump air in the system through air holes. Since studios of TRT are equipped with different brand pedestals, the locations of the adjustment locks, buttons or other settings on the product may differ. Thus, camera operators need to organize their interactions with the pedestal according to these circumstances.



Figure 4.8 Studio camera on pedestal (Photo: Researcher)

Tripods are another camera supporting systems which are commonly used in video productions. During shootings at TRT, tripods are preferred on-location productions since they are easy to carry and store in trucks or vans, while heavy pedestals are used in studios. Tripods are disadvantageous in terms of mechanical camera movements when compared to pedestals. If portable wheels are not connected to the tripod or the tripod system is not located on a dolly or crane system, operating camera on tripod would not cover crabbing, tracking or craning movements (see section 4.2.2). This causes camera operator to stick on the same location during a shot. However, if her physical condition allows, camera operator can carry the camera and supporting system between shots. While setting up the camera on tripod, the operator can adjust the height of the camera by using the hinge locks. In addition, the distance between three pods can be adjusted by using knobs of the tripod's spider -a plastic accessory connecting three legs together- or the connection knob between tripod

legs. Since tripods that are used at TRT shootings may differ, each tripod system has its own adjustments. However, the logic behind the system is same: adjusting the height and changing the distance between legs.

In order to use camera either on pedestal or tripod, ***handles*** are needed to be attached to the system. Focus and zoom controls are positioned on these handles and are connected to the lens via cables which enables the servo system. Camera people at TRT in Ankara prefer to use zoom control on left handle while they attach focus control on right handle. These handles can be adjusted according to the nature of the TV program and the ergonomic needs of the camera operator. Camera person can change the angle of the handles, so organize a more comfortable process of operating.

Apart from pedestal and tripod, there are special camera mounts that require specific trainings to be operated. In this thesis study, I tackle two of them which are jib arm and steadicam. They both provide freedom of action for camera operators and allow arranging visual compositions from various angles.

4.1.2.3 Jib arm/ Jimmy Jib

Jib arm is called as ***jimmy jib*** by camera operators at TRT. It comes from the creator and the manufacturer of the version of jib arm which is used in TRT shootings. Jimmy jib consists of triangular tubes which can be attached to each other and therefore can either be extended or shortened. It is basically a crane system whose arm is counterbalanced on a central pivoting column which is generally a tripod (Millerson & Owens, 2008) or a four-legged support. The camera is located on the far end of the jib arm while camera operator controls the operation on the other end which is closer to the pivoting column. Thus, camera person is away from the camera and operates it remotely by using joystick and zoom/focus handles, and as looking into the monitor which is located on the left side of the pivoting center. On the handles, next to the control boxes, there are weights to balance the seesaw system.



Figure 4.9 Camera on jib arm (Photo: Researcher)

Surfaces that the operator interacts frequently while using jimmy jib are handles, monitors and the pivoting center. Camera operators at TRT who works in Ankara prefers to control joystick with their right hands, while left hands operate zoom and focus servos. Thus, joystick is located on the right handle and zoom/focus control box is attached on left handle of the jib arm. Joystick is the control box which allows the operator to pan and tilt the camera electronically. Camera operator mainly locates the joystick between thumb and index finger and let the other fingers to stick the box and be steady while operating. Left hand uses the zoom and focus controls simultaneously. Zoom servo is positioned on top of the box and is operated by thumb while focus wheel is located on the bottom side of the box and controlled by index finger. Zoom and focus controls such as speed or the direction control are also

located on this box. Both boxes can be tightened and loosened according to the operator's preference.

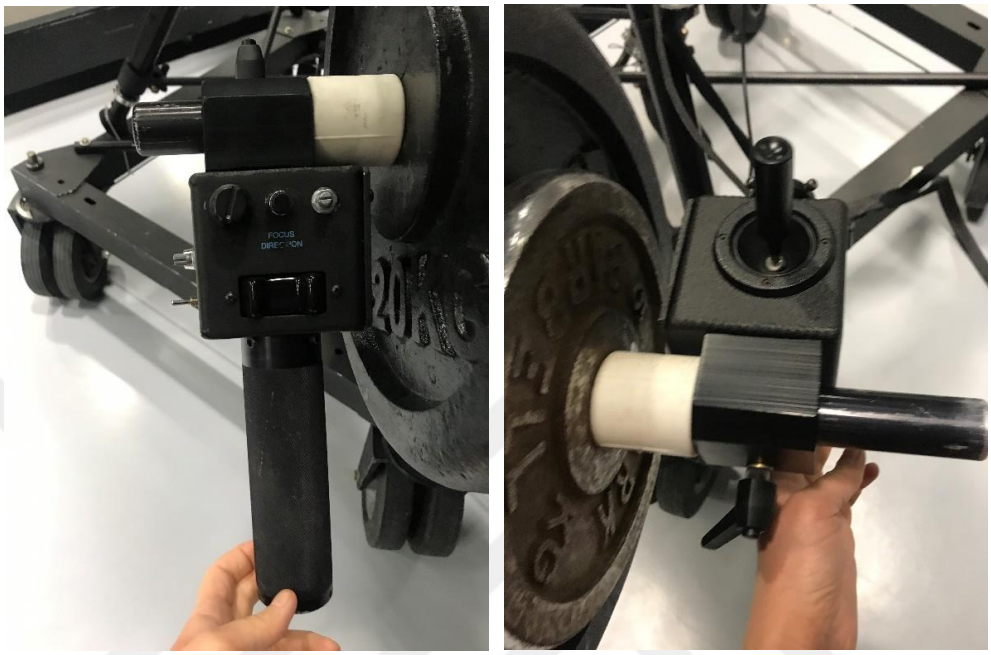


Figure 4.10 Zoom and joystick handles on jib arm (Photo: Researcher)

In addition to the handles, monitors are one of the most interacted parts. There are two monitors one under the other located left side of the pivoting center of the jib system. One of the monitors shows the visual image created by the camera on jib arm, while the other one displays the image which is chosen by the regie room at that moment. On/off button; contrast, brightness, peaking settings, and menu buttons are the most used controls on monitors. Settings of the joystick movements such as pan and tilt speed are located on a control panel under the monitors. The buttons which change the direction of panning and tilting are also on this panel. Camera operator can adjust the speed or direction according to her preference and occupational experience with the system.



Figure 4.11 Monitors on jib arm (Photo: Researcher)

Apart from handles and monitors, pivoting column and the legs are other surfaces of frequent interactions. Jib arm can be locked to stop moving when the shooting is over, or the jib arm is unbalanced. This is done by using a lock knob located on the right surface of central column. Camera operator also interacts with the tripod or four-legged support and wheels. Changing the direction of the wheels and moving the whole jimmy jib system is the main purpose of the interaction and it can be managed via an off-road handle which can be pushed or pulled. In addition to be mounted on wheels, jimmy jib system can be set up on a tracking rail, which allows camera operator to move the system smoothly during the shootings.



Figure 4.12 Four-wheeled jimmy jib (Photo: Researcher)

Together with these parts, jimmy jib helps camera operator to gather interesting compositions from different angles and to create complicated and simultaneous camera movements. Jib arm has many operational advantages when compared to pedestal or tripod. First, it is possible to overcome the floor-based problems during camera movements because on one end of jib arm camera almost floats on the air. Second, since camera is located on the end of the arm, it can easily locate itself in difficult or narrow positions that a pedestal cannot reach. Moreover, jib arm can reach very high or low angles that a pedestal cannot. Even though the jib movements follow an arc instead of parallel tracking or dolly movements because of the seesaw system, it still offers a high range of composition and movement options. Due to its advantageous nature, at TRT, almost all productions include a jimmy jib system. If the production is relatively big, complicated and involve more movements, directors prefer to have two jib systems in the same production. However, since the operation requires a specific training, not all of the studio camera people at TRT uses this

supporting system. Thus, if there is a jib arm needed to be operated, the camera crews are composed accordingly.

4.1.2.4 Steadicam

Another camera supporting system that is studied in this thesis and demands specific training to be handled, is steadicam. As understood from the title itself, it has been created to keep the visual image steady while the camera is moving. As Ferrara (2001) narrates, steadicam was created by Garrett Brown who was a camera operator and seeking a way to keep the image steady and unaffected from the body shaking. Garrett's solution was to disconnect user's body from the camera and to place the camera on a mount. Later, he added a handle to position the camera. Finally, he solved the problem of weight and size of the system. The version of the steadicam which is mechanically close to the ones that are used in the market now, was designed and patented after few attempts in several years. Current version of the steadicam is a system which is worn on the operator's body. Camera operator wears a vest and takes the whole system on his body through it. As Ferrara (2001) describes, the vest connects to an *arm* which consists of two spring-loaded parallelogram parts that carry the weight, lets the system move up and down, and creates a movement area to the operator. The other end of the arm is linked to the *gimbal* which is a pivoting support made of bearings and gears that does not transmit angular impacts. Gimbal supports the *post* which is a telescoping monopod carrying the camera on top of it. Batteries and the monitor are attached to the lower part of the post to maintain the weight balance. This can be arranged as vice-versa; camera can be mounted as lower part and batteries and monitor can go up, which allows to get low angle images. Apart from the parts of steadicam, the camera which is used on the system is also important. In most cases at TRT, wireless cameras are preferred in order not to prevent the operator from moving around freely. However, sometimes wireless camera does not give efficient visual images and the operator may have to

use the system with a cable. In these circumstances, a cable assistant is needed to help the operator.



Figure 4.13 Wireless Steadicam and the operator (Photo: Buğra Gökçe)

Before the operation, camera person adjusts these parts of the system according to her experience, competence, and preferences. First, she starts with adjusting the vest. It needs to fit the user's body, which makes the operators set the system correctly and balanced. If the vest does not suit the body, it cannot spread the weight levelly to the legs of the operator, which would cause a harmful effect on the body. When considered the system that is used at TRT weighs around 30 kilograms, it is crucial to prepare the vest properly. The operator also needs to move comfortable with the vest as it allows her to breathe well and gives her space to move her body joints. After the vest is adjusted, operator needs to set the arm. The strength of the springs,

the up and down range, and the angle of the arm can be adjusted as well as the distance of the arm to the body can be determined. Then, the balances of the post can be adjusted with respect to center of gravity (Ferrara, 2001). These balancing adjustments are done when the steadicam is separated from the body and hanged on the *parking stand*. It starts with the static balance which means the rig -camera, post and other elements- stay upright and vertical. To achieve it, fore and aft, side to side and top to bottom of the system should be in balance. Moving horizontal elements closer to or further away from the center, lengthening or shortening the post and using the knobs on the camera mount help the camera operator to find static balance. However, a steadicam which is balanced statically would not mean that it is also balanced dynamically. Therefore, after static balance, the operator pursues dynamic balance which means the steadicam needs to remain vertical when the camera is panned. The operator gives a horizontal spin to the rig and if the system totters and drifts as spinning, it needs a dynamic balance. To achieve it, the operator repositions the horizontal masses which are camera, battery and monitor by locating all of them on the same vertical axis. She moves them horizontally or vertically until she maintains the balance. By doing this, she needs to keep in mind that all elements should be located properly, so they do not prevent her operating comfortably (Holway & Hayball, 2013).

With all these parts of the system as balanced appropriately, steadicam allows user to achieve smooth compositions and movements as she walks, runs, climbs, or descends stairs (Millerson & Owens, 2008). Thus, steadicam offers a high freedom of bodily and camera movements. With the help of steadicam, camera operator can access to locations and angles that other camera supporting systems cannot reach. Steadicam collects images from everywhere that the operator goes and moves unless there is a cabled camera on it. Ferrara (2001) explains, steadicam is capable of passing narrow alleys or going through doors as following the subject. Camera operator can move on rough grounds or slopes easily with Steadicam. She can also obtain shots in crowded areas. In addition, with the help of steadicam, the operator can achieve a shot of 360 degrees around the subject. For example, at TRT,

steadicam is used mostly in music-entertainment programs and the operators can obtain smooth and steady shots drawing total circles around the vocal artists or other musicians, which cannot be gathered from cameras on other supporting systems. While gathering these shots and moving around, operator follows some walking patterns and positions which are namely Missionary, Don Juan and Switch. If camera operator holds the camera next to her as looking ahead, she executes missionary. On the contrary, if the camera looks behind and the camera operator moves forward, then she follows the walking of Don Juan. Switch is the change from one position to the other as the operator adapts herself accordingly during the shot (Ferrara, 2001).

Conducting all abovementioned arrangements of the steadicam system and handling it is not an easy task because of the time and effort consuming preparation process as well the physical power it requires during performance. Thus, steadicam operator at TRT needs to spare extra time to set the system up before the shooting and wrap it up after the program. Besides, steadicam operators work in pairs and they operate the system alternately in the same television program, which provides operators to keep their energy throughout the show. In addition, when used in multicamera system, steadicam is not always selected for airing by the director. In those moments, the operator can lean the system against her shoulders and waits in resting position till the director asks her to prepare a new shot.

To sum up, camera in studios or on locations in multicamera systems can be handled on different supporting systems which are human body as operating handheld, and mount systems such as pedestal, tripod, jimmy jib and steadicam. While operating camera on these systems, camera person positions the camera and chases the most appropriate frame as pursuing bodily and camera movements in order to meet the need of that TV program or the scene.

4.2 Operations

4.2.1 Camera Positioning and Framing

A successful camera framing is the result of a successful communication between the director and the camera operator. If the camera person understands what director wants for the specific shot, she prepares herself in terms of both equipment and positioning (Musburger, 2005).

In order to capture the requested picture, camera operator positions the camera in different angles to the subject. According to Ward (2001), it is essential for a camera operator to imagine the possible frames from any position to the subject without moving the camera to that position. If a camera person is not satisfied with the current picture created on the camera, she should be capable of estimating what kind of movement is needed for the necessary angle and how much movement is required to change the focal length of the lens to improve the framing. Camera operator needs to make decisions between techniques of camerawork in order to best handle the shot.

Millerson & Owens (2008) claim that most of the pictures on television screens are shot at eye level which gives a natural perception about the subject; however high and low angle shots are also executed. Shooting from a high angle -when camera is positioned higher than eye level- looks down on the subject and makes the subject look small and unimportant. Furthermore, very high angles can be achieved by using supporting systems such as jib arm and used to make an introducing shot which gives much information to the audience about the subject and environment. On the other hand, low angles -when camera is positioned lower than eye level- show the subject powerful and significant. In addition to be positioned according to the height of the pointing lens, cameras are also placed close to or far from the subject. The closer to the subject is the bigger part of it on the frame. However, if the camera is far away, then the subject can take place in the frame together with more environmental

information such as other people or the set of the program. By locating the camera and deciding from which angle to shoot, camera people communicate with the audience and keep their attention on the action which is taking place within the frame.

Frame is used to refer what is included on the sensor of the camera and accordingly on the viewfinder. In other words, it borders what is contained in the composition. At TRT, camera people also prefer using the word *picture* to refer the terms of frame and composition together. Considering frame, picture, or composition; there are universally used and named shooting plans which are categorized according to what they include and present to the audience. All camera people at TRT are supposed to learn and execute them as they operate the camera either statically or moving around the studio. Each of these plans has different aim and information to convey to the audience. For example, close-up shots display emotions and drama on subject's face and makes the audience connect with the subject or gather the attention on the face, while long or wide shots communicates about the environment and introduce the subject's position in that context. Shooting plans from the closest shot to the widest are listed below:

Extreme close-up or *big close-up* which is a detail shot shows a specific part of the body such as eyes or lips. *Close-up (CU)* displays the head of the person sometimes framed with the shoulders. Close-up can be split into several plans such as *head-plan* or *shoulder-plan* as professionals at TRT prefer to say. Following close-up, *medium shot (MS)* includes the upper part of the human body. This shot also includes two different framings which are *chest-plan* and *waist-plan* as stated at TRT. Chest-plan shows the upper part of the body as it is cut at human chest while waist-plan is cut at the waist. Long shots come after medium shots. *Long shot (LS), wide shot (WS) or full shot* means to frame the entire person, with little of the environment around her. If camera person wishes to show the space around the subject, then she executes an *extreme or extra-long shot* (Millerson & Owens, 2008).

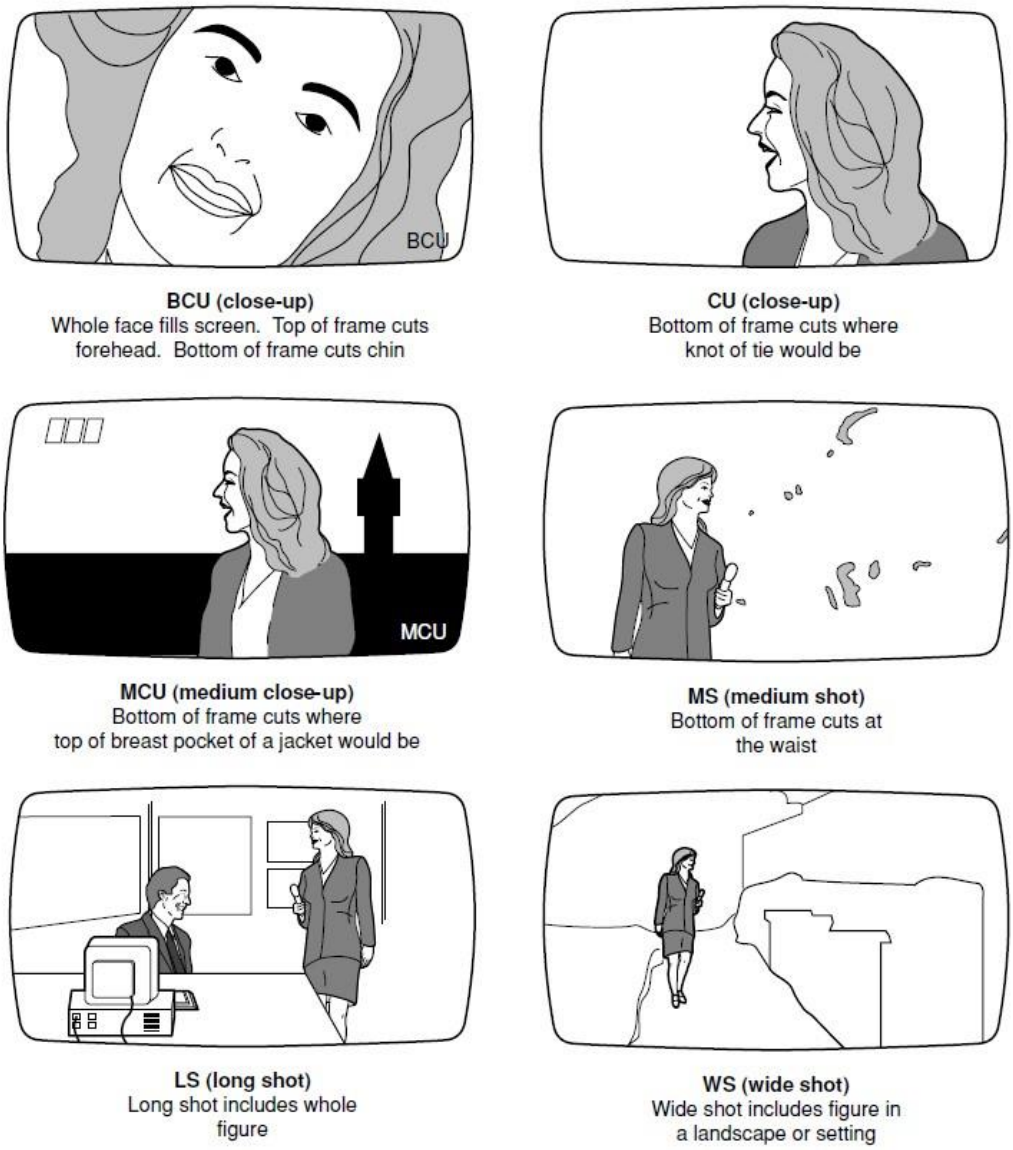


Figure 4.14 Standard shot sizes (Ward, 2001, p. 157)

If the camera is close to the subject, then it is easier to achieve a close-up. Contrarily, if camera person moves the camera away from the subject, things in the frame become smaller and more space can be gathered in the frame such as medium and long shots. Besides, if camera person operates the camera with a tele/long lens, then she can easily achieve close-ups, the other way around, wide-angle lenses provide wide and extreme wide shots. However, zoom lenses which alter the focal length without changing the lens itself, offer camera people to change the shooting plans without changing the location of the camera. She can zoom in or zoom out to reach the intended plans.

In addition to shooting plans, *headroom* and *looking space/room* are very important elements while organizing the visual composition in the frame. Unless it is requested by the director or preferred by the camera operator for artistic reasons, camera person leaves more space on the looking direction of the subject in the frame. In this way, visual images of the people talking to each other in a talk show can give the understanding of them facing each other. Furthermore, camera operator leaves some space between the head of the subject and the border of the frame. This space is called as headroom and prevents the talking head sticking to the limit of the frame. Headroom is not an issue in close-up shots since they require detail framings.

Camera operator organizes the frame by adjusting the position of the camera, selecting the shot size, and keeping the frame balanced with headroom and looking room. With the help of these practices, she tries to get the most appropriate visual images that the scene and the program require.

4.2.2 Camera Movements

During camera operating process, camera person moves her body in order to create a movement on the product, which results in a change in the visual image. The aim of the operator is to provide an image that is good enough to be broadcasted with its composition and movements, either according to director’s requests or her own

creative and generative intentions. To achieve this aim, camera operator executes optical and mechanical camera movements which are correlated and coordinated with her bodily movements.

4.2.2.1 Optical Movements

There are some optical camera movements that change the captured image and controlled by the adjustments on the lens. They are mainly focus, zoom and exposure.

Focusing is adjusting the elements in the lens in order to create a sharp image of the subject at a specific focal plane. If the camera is used in a studio or location with large viewfinders -monitors-, then the focus is controlled by a servo mounted on the handle either on tripod or other supporting systems. On the other hand, if it is a single camera with monocular viewfinder, focusing is adjusted via a wheel on the lens (Ward, 2001). In both cases, camera person moves her hands and fingers either to control the focus servo or focus wheel.

Zooming is another optical movement that results in the alteration of the image size without changing the position of the camera. If a close-up frame is needed, camera operator zooms in. On the contrary, she zooms out when a wide shot is intended. Millerson & Owens (2008) explain that there are three ways to zoom, which are the barrel ring, power zoom and remote zoom. Barrel ring is the zoom wheel on the lens which gives a total control over zooming. Power zoom is a motorized zooming action controlled by two-way switch. Handheld camera users mostly prefer power zoom. Remote control is a zooming servo adjusted on one of the handles of camera supporting systems, which is mainly used by camera people in multicamera crews. For each control, camera person moves her body differently in order to execute the action properly.

Each camera needs an amount of light in order to produce the image at a correct exposure. To adjust the exposure, the lens aperture is changed by the camera operator

by using the wheel on the lens. Auto-iris is another setting on video cameras that allows the camera to self-control the lens aperture (Millerson &Owens, 2008). If it is a multicamera system, then the exposure is controlled by the camera control unit and camera person does not interfere with changing the lens aperture.

These movements are closely related to the concept of *depth of field* which is the focused area in the frame. When camera operator focuses onto something in the frame, a limited area front and behind of that object seems focused too. Since camera operator is required to catch the subject of the shot in focus unless an unsharp image is requested, depth of field is very crucial and beneficial to keep the quality of the image. As Millerson and Owens (2008) also mention, depth of field is connected to the focal length of the lens, the amount of light coming into the lens, the size of the censor of the camera and the distance between the camera and the focused subject. Even though a studio camera operator at TRT cannot control the size of the censor of the camera and the aperture of the iris, she still can affect the depth of field and compose her frame according to her preference by moving the camera close to or away from the subject or using zoom servo to change the focal length.

The skill of adjusting these optical movements by employing her hand and finger dexterity, supports the operator while she seeks for a better image and releases her bodily performance in her Lifeworld. However, camera movements are not limited to the optical ones, there are mechanical movements which cause camera person and the camera move physically.

4.2.2.2 Mechanical Movements

Jones (1971) groups the mechanical camera movements as *panning*, *tilting*, *tracking*, *crabbing*, and *craning*. *Panning* is pivoting the camera on its horizontal axis while *tilting* is the vertical pivoting. *Tracking* is known as the camera movement towards or away from the subject; on the other hand, *crabbing* is moving a camera sideways or parallel to the scene. Generally, the term of *dolly* is used for crabbing, however

sometimes people can call tracking as dolly too. *Craning* is explained as the vertical movement of the camera that changes the height of it. Steadicam operators use *boom up* or *boom down* to refer craning. *Dutch* is used when the head of the camera is rotated/ tilted sideways; this movement is accessible during hand-held operation or using the camera on jib arm. Most of the time, some of these movements are performed simultaneously; this creates a complex bodily experience. Especially operating the camera on a jib arm requires almost all camera movements -optical and mechanical- at the same time.

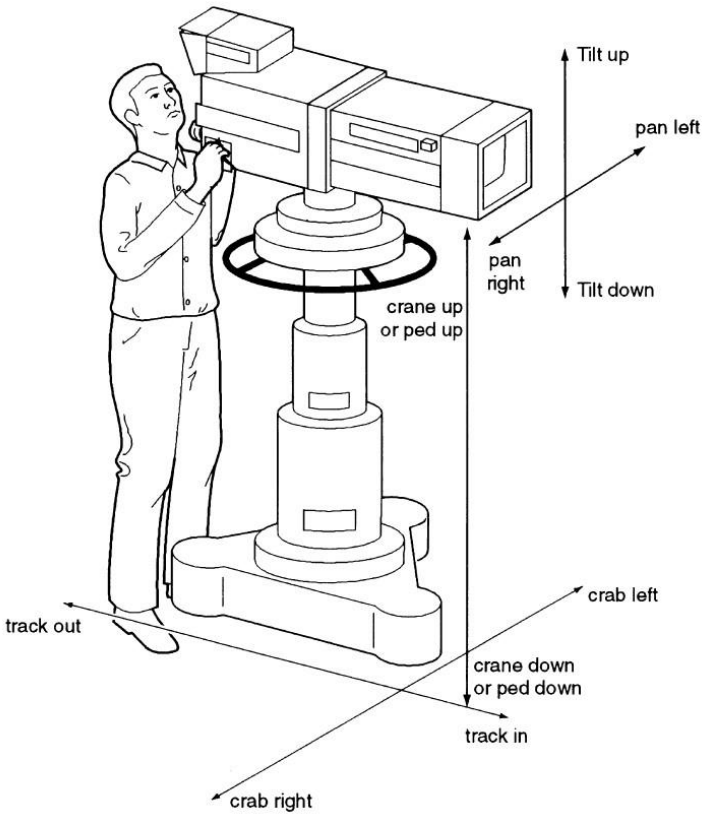


Figure 4.15 Mechanical camera movements on pedestal (Ward, 2001, p. 77)

These movements are executed differently on each camera supporting system. For example, camera operator pivots her own body while operating the camera on her

shoulders, or she should rotate the post of the steadicam to achieve horizontal panning. This differentiation continues in each camera movement, accordingly in each bodily movement. Each camera supporting system leads operator to move her body differently.

Moving the camera while executing a complex performance should be challenging because as Ward (2001) indicates, camera operator must coordinate her eyes, hand, and body at the same time. Practicing these movements helps camera person to gain experience which makes the camera movements familiar to her and lets her gain occupational experience to perform smooth and continuous bodily and camera movements.

All camerawork needs to be done smoothly and controlled unless the opposite is aimed by the operator or requested by the director. Camera operator should maintain the movement as continuous, smooth, and evenly paced, she should avoid performing hesitant actions in order not to ruin the final image. A long pan and tilt may cause difficulties for the body; however, the experienced camera operator suggests solutions to the problems (Millerson & Owens, 2008). Moreover, the movements should be planned, and the camera operator should estimate the final frame before the action; or she should be aware of the possible problems and rearrange the movements accordingly. Each camera person develops her own skill of driving pedestals or other mounting systems to achieve the maximum quality of the moving image and coordination of the body elements (Jones, 1971). Each camera movement depending on the camera and the mount that is used, has its own range of performances. In addition, camera operator executes camera movements in a network of people, which influences the nature of performance.

4.3 The People

Camera operating process happens in a network of camera crew and in a broader sense it is performed in a broadcasting team. A camera operator cannot carry out a

TV program on her own, she needs to work in and correlate with a broadcasting crew. Camera operator is constantly related to her own capacities and abilities as well as the occupational practice of other camera people in the crew she works with and the other broadcasting crew that she shoots a TV program together.

4.3.1 Camera Operator and Camera Crew

Camera operator is one of the constituents of this thesis study. As phenomenology elevates first person's point of view, camera person is the *Dasein* of this process of camera operating experience in the Lifeworld of networks and contexts. Thus, camera operator and her qualities are important in determining the embodiment process that she goes through during her bodily experiences. In this section, I will try to briefly mention what qualities are expected from a camera operator.

Jones (1971) asserts that camera people operate the most significant tool of the TV productions indicating that cameras are the visual mediums. He also indicates that the camerawork behind the scenes may be unimportant for the audience but vital for the camera people. To be successful in the camerawork, a camera operator needs to be keen in the TV production and have strong visual sense of composition. Besides, cameraperson should have knowledge on basic photography and optics.

Elkins (2009) describes a typical camera crew as consisting of director of photography (DoP), camera operator and camera assistants. However, most of the time, the camera team that shoots documentaries for TV is smaller than the one dealing with short or feature films. In small documentary crews, DoP might be the camera operator and sometimes there might not be an assistant.

For TV productions, there are camera operators and camera assistants in the department. Camera operators need to set the cameras up and operate the camera to create the visual image that the director wants, while camera assistants are responsible to help the camera operator when setting the camera up and operating the camera. Moreover, camera assistant is responsible to keep the camera clean and

safe, and to guide the camera person during camera movements. Sometimes, camera assistants can work as a grip to maintain a dolly shot (Millerson & Owens, 2008).

In TRT productions, camera people work in a camera crew consists of at least 2 camera operators. And, in relatively bigger productions such as Champions League football matches or musical shows, there may be more than 20 camera people shooting the program at the same time, located in different camera positions as conducting different camera tasks. In each camera crew of a particular shooting, senior camera operator is respected as the head of the crew and mostly juniors are counted as assistants. At TRT, camera assistants are expected both to help senior operators while preparing the equipment for the shooting and to operate cameras that are assigned to them. In this regard, senior and junior camera operators are assigned to different tasks and responsibilities.

However, either operator or assistant, the camera people are responsible to keep their equipment in a good working state. Camera and its accessories should be routinely checked and cleaned. In addition to technical controls, camera people should achieve the high standards of camerawork as they master their skills on both optical and physical camera movements (Jones, 1971). Camera people gain experience and become an expert user on operating the specific camera type among many of other types that used for TV production.

In case of TRT, camera operators gain this expertise through a mentoring system. Although TRT provides theoretical and practical trainings to novice camera operators, they are also encouraged and led to follow some senior operators to learn camera operating practice through observation and imitation. Beginner camera people follow the experienced ones while they are operating cameras and try to perceive their way of using the product and behaving in the context. In addition, senior operators give feedback, comments, and insights to the beginners, which will help them to structure their own camera operating practice. This way of learning also continues after the beginners take responsibility and handle the cameras on their owns. Since, camera operating is a practice executed in a team, senior and junior

operators pursue an intertwined relationship and develop their practice in a life-long learning process.

4.3.2 Other Broadcasting Crew

While camera person works in a camera crew, she also pursues her operation in a greater broadcasting crew, in which different occupations relate and create a TV program to be broadcasted in the right way. In the case of this thesis study, studio camera operator in multicamera system associates with various areas of profession which may differ from one shooting to the other. However, there is a general list of people who affect or relate to the practice of camera operating as follows:

Firstly, camera operator is in a strong connection with the director. *Director* is the person who is responsible for visualizing the production. Either before or during the shooting, director informs camera crew about what type of visual images -pictures- she wants to receive from cameras, and during the production she selects the most appropriate image considering her wishes and intentions. She directs not only the camera people but also other professionals in the broadcasting team (Millerson & Owens, 2008). During the shooting, she stays in the regie room, but she can contact to the whole team through intercom system and conveys her ideas to the other crew members. In the end, she needs to make the team work effectively altogether and create the TV program through a mutual endeavor.

Besides director, *assistant director* is also related to the camera operator's work. Assistant director is supposed to help director during the shooting, but she also provides valuable information for the camera operator. For example, in a shooting of a concert, she notifies the director about which musical instrument will be playing next, which makes the camera operator to prepare her next shot accordingly. Production assistant can also take this task if there is no assistant director.

There is also *producer* that camera operator has a contact. Producer is the person who is responsible for the shooting to happen by taking care of budget, business

organization or getting crew together. However, at TRT most of the time producer is the director and most of the relation between camera person and the producer occur because of the directorial responsibilities.

At TRT, camera operator also relates with the *vision mixer*, who sits next to the director in regie room- production control room- and cuts from one resource to the other to select one image to be broadcasted. Vision mixer strongly affects camera operator's practice because she is the person who switches from one picture to the other. In case of sports events and matches, directors prefer to take in the charge of vision mixing in order not to lose time by telling another person to cut an image.

Furthermore, *lighting crew* is another group whose profession has an impact on camera operator's job. Lighting director is the person who designs, arranges, and controls the task of lighting in the studio or on the locations. She also organizes her crew of gaffers and electricians (Millerson & Owens, 2008). Since camera needs light to produce an image, camera person's job rests on the lighting treatment.

Camera control unit (CCU) is also very crucial for camera operating practice in multicamera systems. In multicamera systems, camera operators cannot have any control on lens aperture and the exposure on the image during the shootings. Camera controller (CCU specialist) is responsible for controlling the cameras remote and set the exposure, aperture, black level, white balance, luminance, and color correction (Millerson & Owens, 2008). She also technically matches the images of each camera; thus, when a cut from one image to the other occurs, it doesn't disturb the audience.

Floor manager or stage manager is the person who pursues her job on the studio's floor. She is the organizer of the shooting happening on the stage. For example, she starts or stops shooting according to director's will, maintains the continuation of the shooting without any outer disturbance, or makes the spectators in the studio clap if needed. She works next to camera operator and shares the floor with her.

Video tape recorder (VTR) is responsible for recording the television program on tapes or airing the pre-recorded videos during the program. Similarly, *EVS operator*

records the television program or the parts of the program digitally. Camera operator interacts with them mostly on sports events when they are asked to air slow motion images recorded from different cameras.

Grapher or caption generator operator is the one who arranges the titles and graphics and put them on the broadcasting screen. Sometimes, camera operator may need to organize her frame according to the grapher's work. For example, camera operator may cover the image of the subject on a specific part of the screen, if the grapher has to show a certain graphic on the other side of the broadcasted image.

Technical director is the person who is responsible for the whole technical issues happening during the shooting either in studios or on locations. There are also *technicians* with whom she works together. In case of a technical problem, camera operator interacts with this technical crew to solve the problem or handle the situation.

In addition to the technical crew, on location shootings, there are *jimmy jib technicians* who set up and make the jib arm function properly and ready for the operator. They also disassembly jimmy jib after the shooting. They stay close to the jimmy jib operator during the shooting and help her when the location of the system is needed to change, or a technical problem happens.

Camera operator also relates with the *subject* (speaker, presenter, guest, orchestra, vocal artist, or anyone who is the actor in the composition). First, camera movements and frames are motivated by the subject. In addition, camera person may directly speak to the subject while she organizes her compositions.

Spectators also influence the operating practice of camera person. If a TV program include spectators, they are supposed to interact with the program or with the talent, which makes camera operator take them into consideration. In many music shows or sports events, there are specific cameras dedicated to the spectators. Thus, these cameras need to capture the reactions or interactions of the spectators during the shooting and show them as a main part of the broadcasted event.

Since producing a television program is a complicated and multi-layered process, it requires many persons integration in order to prepare, shoot, record and broadcast the images. Thus, camera operator works and interacts in a network of people who are both other camera operators in her crew and other broadcasting crew she relates directly or indirectly. She interacts in this network as well as in the environments she works in, which is examined in the next section.

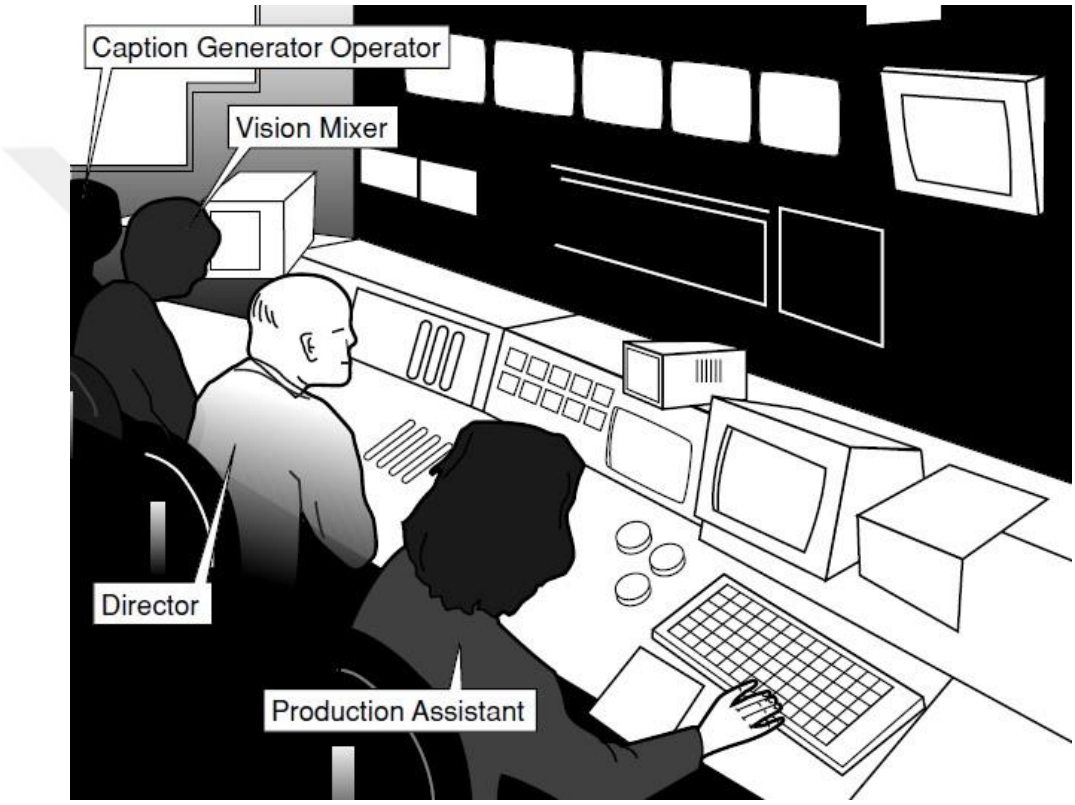


Figure 4.16 Broadcasting crew in regie room (Ward, 2001, p. 41)

4.4 The Environment

Besides being affected by the people she works together; a camera operator is also connected to the environment in which she works and pursues her bodily movements. Phenomenology founds its discussions on the inseparability of mind and body as well as the togetherness of human being and the Lifeworld. Here, the studios

or locations that a TV program takes place and the context of the program altogether constitute the Lifeworld of the camera operator. In following sections, I will discuss the descriptions of these elements.

4.4.1 Studio and Locations

4.4.1.1 Studio Shootings

Television programs are produced in studios or on location which are turned into studio circumstances. Utterback (2016) describes TV studios as physical spaces which are built to control sound and light while shooting a program. These spaces contain sets and subsets which serve for different program contexts. A single studio can involve more than one program sets, and cameras can easily turn from one set to the other when needed. Program sets differ from each other according to the program contexts in terms of both dimensions and design. If the program hosts great number of people on the set, then the set needs to be wider, and it probably covers the whole studio. However, if there is only one talent on the set, then the set can be kept smaller, and it contains less props and accessories.

Television studios are supposed to have flat floors to provide smooth surfaces for the cameras while they are being moved from one position to the other. At TRT, the floor of the set is generally made of plexiglass which is available for cameras to crab and to track smoothly and continuously. However, if the camera movement is too long, joining parts of the plexiglass plates may cause a stumble, and inhibit the unruffled camera image. In addition, the floor needs to be clean in order not to create a hazard during camera movements. While operating the camera, camera person checks the floor and organizes her upcoming camera movements according to the feedback she receives. Studio or set floors may also include stairs or ramps which are significant for planning camera movements and positioning. Especially steadicam operators need to be careful while climbing up and down stairs during the shootings. They need to check the stairs as wells as the floor before the shooting,

then rehearse and internalize the timing of their performance. Thus, they can concentrate on the visual image instead of worrying about the environment.

Other set elements that affect camera operating process are the vertical components such as the videowall, led screens or curtains forming the background of the setting. Camera operator takes this background element into consideration while arranging the visual frames she wishes to achieve. Moreover, videowall or curtain limits the program set and lets camera person to understand the borders of her moving space. In addition, set components such as desks, tables, chairs, screens, and platforms draw the line of performance for camera operator across the set, and give ideas for possible framing opportunities.

Besides abovementioned set elements, ceiling of the studio is also important for camera operating process especially if jib arm is used. Studio ceiling needs to be high enough to prevent camera on jib arm touch or hit the lighting elements which are hung from lighting grid. Otherwise, camera operator always needs to watch for the lights in case she booms the jib arm up and positions the camera close to the lighting grid.

4.4.1.2 On Location Shootings

Studios are not the only shooting environments for multi-camera productions. TV programs can be shot on other locations either indoor or outdoor. In both cases, locations are technically turned into studio circumstances, however the background stays as natural settings instead of designed sets. During the shootings on locations, control room -regie room- is separated from the shooting location and positioned in a truck. Thus, in some shooting environments director and other crew members stay physically far from the camera operators. This may cause accessibility issues; in case a problem occurs on the location that requires an instant interference.

Moreover, shootings on locations are not as controlled as studio productions. Not only technical inputs such as light and sound, but also unpredictable incidents are

hard to be managed on locations. For example, a floor manager can handle the spectators in the studio, however it might be impossible to direct spectators on a live music concert. This may even cause dangerous situations such as injuries or bullying that are caused by furious spectators in a stadium during a football match.

In addition, weather conditions become significant for camera operators if the shooting happens outdoor. Rainy, snowy, sunny, or windy weathers affect the practice and performance of camera operators. For example, if it is very cold and the camera person requires to stay outside for several hours during the shooting, her responses or concentration diminishes, and her execution of the tool fails. Likewise, sunny weathers cause camera operators to sweat and hard to move with the camera. Thus, indoor or outdoor, on location shootings are more challenging than the regular studio productions in many ways.

Camera operator uses the camera in studios or on locations including different program contexts. In case of this thesis study news and talk shows, music and entertainment programs, and sports events are examined as the shooting contexts.

4.4.2 Program Context

4.4.2.1 News and Talk Shows

News and talk shows are relatively stable programs when compared to music entertainment shows or sports events. They mainly include one or few more people on set. Utterback (2016) describes a news program set as consisting of a platform rising from the floor about 20-25 cm, which carries a desk and chairs on it. Cameras are positioned at eye-level and camera operators generally do not change the position of the camera during the program.

In news programs, generally there is only the speaker or presenter on the set, and she mainly reads or presents the news as looking into the camera. Sometimes she stands on the set instead of sitting on a chair or walks around the set as creating an active

atmosphere. In these cases, cameras do pan, tilt, zoom and focus frequently and continuously in order to keep the talent in the frame. If the main camera support is a jib arm, then camera operator also moves her own body according to the talent's movements in order to move the jib arm horizontally and vertically. In news programs at TRT, generally one or two cameras are actively used -one camera on pedestal and one camera on jib arm-, and camera operator usually works in a smaller camera crew. In news programs, camera crew is alone with the talent in the studio during the shooting.

In talk shows, there are more people than one talent on the set. The presenter or moderator have guest/s in the program and the nature of the program is based on their conversations. They sit on chairs located one side of the desk during the program and cameras are positioned to capture the faces of the people as frontal as possible. Even though these programs do not require many camera movements, cameras can be re-positioned if the guests turn their faces to each other too much and their image on the cameras become profile instead of frontal. Besides, cameras are eye-leveled in this program context, which makes the viewfinders of the cameras position lower than camera people's own eye-level and make them look downwards during the program. In order to overcome this problem, camera people may also sit on chairs behind the cameras unless the director asks them to move the camera frequently. In talk shows, cameras on pedestals are dedicated to each person and they capture the image of that person on medium shot -chest plan or waist plan- while camera on jimmy jib is generally used to give a general view of the set and to introduce the people and environment by executing a long shot. In talk shows, the number of camera crew members depends on the number of the people on set. For example, in TRT cases, if there are one presenter and one guest, then generally there are three camera people working, two for cameras on pedestals and one for camera on jib arm. In the studio, camera crew works together with floor manager in this program context, sometimes a sound guy may also be ready in the studio.



Figure 4.17 News and talk show set at TRT studios (Photo: Researcher)

4.4.2.2 Music and Entertainment Programs

Music and entertainment programs at TRT vary from studio programs with small orchestra to large outdoor or stadium concerts. In these programs there are generally vocal artists and instrumentalists. However, in rare cases, there may be only instrumentalists making music without any person accompanying.

Most of the music and entertainment programs shot in TV studios involve a separate part for the orchestra. Instrument players generally stand on a platform that is dedicated to them. The extent of the platform depends on the number of instrumentalists. Similarly, there may be another platform specified for the vocal artists, which makes them separated from the rest of the crowd on set. However, this layout slightly differs in each program considering the set design.

This program context is dynamic and lively. The rhythm of the program continuously alters according to the pace of the music, and there is always a movement on set caused either by the played instruments or the vocal artists' singing. Thus, cameras need to be active, moving, and agile in order to follow the pace properly and cover everything happening in the studio to transfer to the audience. Since cameras require to be on the move throughout the shooting, camera people are also active and ready to change camera positions and frames as soon as it is needed. Therefore, camera people move their bodies and cameras across the set and try to gather their intended visual images, which requires a high level of concentration, automated responses, and sometimes physical power in case the pedestals are heavy to push or pull for crabbing and tracking.

Furthermore, cameras operated in these programs are more in number because of the outnumbering talents on set, which results in a larger camera crew. Each camera has its own task as it does in news and talk show programs. Nonetheless, in music programs, tasks are more complicated and depends more on camera people's initiatives when compared to news and talk shows. For instance, one camera can be dedicated to gather images from orchestra, but at the same time, it needs to turn to the spectators in the studio and capture their images while they are accompanying the music or clapping the talents after the performance. Thus, there is hardly a standard for the camera frames, angles, and movements in these programs. For example, camera operator might zoom in until an extreme close-up of a violin just before the vision mixer cuts to her camera; after her camera is aired, she may zoom out and involve the instrument and the instrumentalist in waist plan in the frame. Yet, in the next shot, she may prepare a long shot of the spectators, and as soon as the image is aired, she may crab with the camera as zooming in until a waist plan of a single spectator is achieved.

In addition, in music entertainment programs, the number of different camera supporting systems may increase. Camera on steadicam and handheld camera operating may be added to the pedestals and jib arm. This provides more alternatives for different camera angles and movements. In these cases, the interaction occurring

within the camera crew enhances and each operator focuses more on following the others' practices. Similarly, the context of music entertainment programs also offers camera operator to work in a larger broadcasting crew, which requires more interaction. For example, camera operator depends more on vision mixer while she organizes the transition between shots, or she follows assistant director's prompting as preparing the shot of the instrument which will be playing next.

In brief, the context of music and entertainment programs offer complicated practices for camera operators which include multifaceted relations and interactions. Camera operator executes her performance in an active way to catch the rapid and instantaneous nature of the program context.

4.4.2.3 Sports Events

In addition to news and talk shows and music-entertainment programs, field study that is conducted for this thesis also covers sports events as program context. Sports events include matches, championships, races, or competitions in different sport branches such as football, basketball, handball, volleyball, athletics, tennis, or gymnastics. Each branch has its own nature of execution which affects the ways of camera operating for the camera people.

Camera numbers, positions, angles, and tasks change in each sport branch. Besides, camera supporting systems that are used also vary from branch to branch. The importance of the sports event also influences the nature of the game and the practice of camera operating. For example, while a regular football match requires 4 to 8 cameras, a champions league or national team game includes up to 20 or sometimes more cameras with even niche camera tasks such as a camera which is dedicated to only one soccer player. In addition, a standard volleyball game is shot with 6 cameras on tripods and handheld, however if it is a volleyball tournament, camera numbers increase and additional camera supporting systems such as jib arm are provided. Moreover, camera positions in a basketball match are totally different than the floor

plan of a tennis game; pilot camera -general camera- of a basketball match is located on the long side of the court, while it is positioned on the short side in tennis.



Figure 4.18 Camera in a football game (Photo: Ferhat Eryılmaz)

Sports events take place on location both indoor and outdoor, which have different impacts on camera use of the operator. As mentioned in the section of studios and locations, outdoor shootings are exposed to climatic conditions such as very warm, cold, rainy, or windy weathers. In these extreme and difficult weathers, operating the camera turns into a challenging practice and affects the camera operator's performance. For instance, operating a jib arm in a soccer game in windy weathers would be difficult since it is hard to control the huge system of jimmy jib while trying to follow the ball in the frame. Furthermore, a sports event can also be held in indoor courts such as karate or gymnastics. In these cases, weather conditions are not a

factor of camera operating performance, however the physical conditions of the sports hall are still crucial to the camera people. For example, if the area is not large enough, camera positioning becomes an issue to be solved. Especially massive systems such as jimmy jib need spacious area to be used effectively. Positioning may cause problems in any sport halls, courts, or fields if the building has not been designed considering TV shootings. For example, many stadiums do not include specific places for locating cameras. Thus, sometimes camera tripods can be set up on walls, stadium roofs or portative cranes, which put camera operator in a difficult and sometimes dangerous position while using the camera (see Figure 4.19).



Figure 4.19 Setting up a camera in a difficult position during a football game (Photo: Nazif Akalın)

Similar to music and entertainment programs, in sports events camera operating practice needs speed, quick decision making and action taking, agility and alertness. Therefore, camera operator needs to operate the camera with a full concentration to follow the game properly. Especially during the games which are naturally played very fast such as handball, tennis or basketball, camera operator has to react every action happening in the game very quickly.

In sports events, time of the event or the game does not have any standard. In some sport branches such as tennis or volleyball, it depends on the flow of the game. Thus, the camera operator needs to keep her concentration for an unforeseeable long time. In these cases, bodily tiredness also becomes a handicap for the operator towards the end of the game.

In addition to the abovementioned factors, spectators impact the practice of camera operating in sports events. As an extreme example, in soccer games, spectators may turn into a dangerous factor for camera people if the team they support is defeated. Camera people may become victims of hooligan violence and be thrown water bottles, torches or even stadium stools. Therefore, it is necessary for camera operators to be careful about the shooting environment.

To conclude, camera operating practice is affected by the program context that the shooting takes place. News and talk shows, music and entertainments programs, and sports event require different camera operating performances and ask camera operators to organize themselves differently.

4.5 Summary of the Chapter

Camera operating practice is under influence of the equipment which includes camera together with its accessories and supporting systems, the ways of framing and moving the camera, the people that the camera operator interacts with, and the program environment including the shooting locations in which a TV shooting takes place and program contexts which determine the coverage of the program. At the

intersection of these factors, camera operator interacts with various parameters which transforms her bodily experiences during her camera work. Since each camera operating experience is different than the other, this interaction happens differently in each case.

For example, bodily experiences of a camera operator in a music concert are different than her bodily movements and actions in a soccer game shooting. However, under these variety of experiences, the operator still structures a technique of camera operating through the sedimentation of necessities for being a camera person and shooting a program to be broadcasted. The ways of her establishing and releasing this technique in the flow of the practice are significant for this thesis study while trying to reveal the nature of the practice. In this regard, this thesis conducts field studies to achieve this knowledge, which will be examined in the next chapter. Next chapter will present the research design, its implementation, and the analysis of the collected data for identifying the findings.

CHAPTER 5

METHODOLOGY, FIELD STUDY AND THEMATIC ANALYSIS

This chapter covers my overall research approach and research design as well as their conduct in the field studies. In this chapter, I also exhibit the data analysis of field studies which leads me to identify the findings that will be covered in the next chapter.

5.1 Research Approach and Research Design

For this thesis study, phenomenology is not only a theoretical background that I lean my research against, but also a holistic perspective that I hold while carrying on my investigation. Since this thesis is interested in investigating and understanding the process and nature of camera operating; experience and interaction stay at the very core of this study. In this sense, the relationality emphasis of phenomenology provides not only an understanding towards the human experiences but also an overall research approach that makes me organize my field study towards the investigations of these experiences.

In accordance with the relational perspective of phenomenology, Adams and Van Manen (2008) describe phenomenology as “the reflective study of pre-reflective or lived experience” (p.614). In this regard, phenomenology is interested in the direct experiences that we live in our Lifeworld, instead of conceptualizing or theorizing the contexts that experiences take place. For phenomenology, the experience itself is important, not the symbolizations or calculations to describe these experiences. As Adams and Van Manen (2008) state, phenomenology investigates the lived experience which happens at a specific moment in a specific place. Therefore, the spontaneous expressions, emotions and anecdotes become significant when

collecting experiential material. As phenomenology accepts the experience as the source of knowledge and meaning, its approach and tendency of collecting data cover the methods which concern and elevate human experiences.

Even though I do not examine phenomenology as an independent and alone-standing research method, this thesis tackles phenomenology as a total perspective which influences every aspect and dimension of life, of experiences. Therefore, phenomenology is a perspective which also affects the research approach and research design of this thesis. Accordingly, I tackle ethnography and autoethnography as the main research methods which provide me the solid knowledge and experience of camera operators towards the understanding of the nature of camera operating process. Putting the experiences and interactions of camera operators at the center, I designed my field study to gather data on these experiential knowledge and processes.

In my two-staged field study, first stage focuses on my own camera operating process in order to reveal my spontaneous and momentarily embodiment moments through my bodily experiences and actions, the motivations and reasons that lead me to execute those actions, and the consequences following that particular experience. This first stage is a direct transfer of my lived experience from the first-person's point of view. I tried to scratch out my camera operating as a task and a bodily technique. In the second stage, I was in the field as an ethnographer. I interviewed with and observed my colleagues. I delved into their camera operating processes. I tried to collect their camera operating memories, thoughts, comments, emotions, interpretations, and experiences through ethnographic studies. Conducting these studies as a camera person working in the same department with the participants provides me a great opportunity of anticipation, intuition, and empathy. Therefore, even though the information gathered through the field study of Stage 2 is not a direct lived experience of myself, I could connect with the lived experiences of my colleagues.

Here, the subjectivity and objectivity of the data can be discussed through the first-person perspective of phenomenological methodology and understanding, as well as my own occupational identity as an insider because of my being a colleague of the participants. As Miller (2008) indicates, instead of pure neutral objective facts, qualitative research embraces and employs subjectivity of the researcher as accepting her the co-author of the reality together with her participants. Therefore, qualitative researchers are dependent to their research subjects instead of examining them from a detached position. In this sense, qualitative studies have a reflexive nature, which makes the research very connected to the researchers. Thus, this PhD thesis study as being pursued as qualitative research, is closely bond to my personal experiences. However, this connection is not something a baseless relativity. On the contrary, it is the subjectivity of qualitative research which covers my honesty, transparency and loyalty to research requirements and traditions.

In the particularity of this thesis study, my first-person perspective becomes important. As discussed above, first stage of my field study gathers the information through autoethnographic method. The method will be explained in detail in following pages, however, the issue that I wish to emphasize it here is that we as human beings have some experiences that cannot be achieved or conveyed by a third person perspective. According to Lumma and Weger (2021) "…subtle aspects of an internal experience can possibly not be observed from an external point of view" (p.1). Even though the authors discuss the psychological phenomena mainly, our any interactions and experiences may require first-person perspective to be fully achieved. Roth (2012) indicates that first-person perspective makes our immanent pre-reflective experiences visible, so that we can achieve the conscious moment before our reflection positions itself in our being. Because, with first-person methods, we try to study the activity of consciousness at its emergence, it's at work, and it's at ready. Since we demand the lived experience, we need first-hand information which presents our familiarity to our decisions and actions. Through first-person methods, we capture our immediate actions at any given time and place. In this regard, research design of this thesis study cannot be considered without

including an autoethnographic inquiry, which helps me to apprehend the natural aspect of my bodily experiences in their spatio-temporalities.

Furthermore, while building my research as a follower of phenomenology, I also aimed to grab the reality of others through ethnographic approach and data gathering methods. In addition to my own experiences, the experiences of others are required to establish the path that goes towards the mutual reality of camera operating process. In this sense, since I position myself as an insider researcher, ethnographic study also consults to my subjectivity. Here, my being as a camera operator makes my understanding of others' experiences in a distinguished way both in terms of data gathering and data analysis.

In qualitative research, positioning of the researcher herself as insider/outsider has been discussed several times (Griffith, 1998; Zinn, 1979; Merton, 1972; Naples, 1996; Dwyer & Buckle, 2009). As Court & Abbas (2022) indicate, Bronislaw Malinowski -the founder of the social anthropology- brought the idea of participant observation to the anthropology by understanding that a culture can only be known from inside. Although insider/outsider discussions had not started yet in his time, his transformative approach from objective description to participant observation is significant. Because, whether from detached or inside, the knowledge is constructed through this ethnographic inquiry. In this sense, the researcher's positionality may affect this construction. As Court & Abbas (2022) presents, this positionality is not a black and white distinction, the researcher may swing between insider and outsider. However, according to the authors, instead of naming the position, here the more important issue is the development of the discourse by discussing the ways to achieve the true knowledge. As Griffith (1998) interrogates, in which ways the biography of the researcher affects the knowledge: is it a privilege or a disqualification for the knowledge? Does the membership and tacit knowledge of the researcher make the knowledge more trustworthy? In this sense, Court & Abbas (2022) claim, there is not a better or best place: in both cases, or the cases between them, researchers can achieve rigorous and honest knowledge. The crucial phenomenon is their awareness of their positions while relating with their participants. Thus, their reflections and

reflexivity on their position make them consider on the advantages and drawbacks that they possess, and therefore act accordingly.

Griffith (1998) presents, the insider researcher means the one whose biography and experience create a familiarity and tacit knowledge with the researched group. Besides, as Mohler & Rudman (2022) mention, being a member of the group that the researcher investigates, enables her to be aware of the nuanced experiences as they share the lived experience, which makes her 'one of them'. In this sense, being an insider may help researcher to create connections with the subject through her embodied, situated, and shared experiences, which may give the researcher a privilege to access deep understandings. However, as mentioned above, the researcher needs to be aware of this being inside. Because being an insider has both advantages and disadvantages simultaneously. According to Greene (2014), an insider researcher has a prior knowledge on the research subject, has interactions with the research group without stereotyping the participants, and accordingly she has an easy access to the participants. However, she, at the same time, may be too subjective and biased because of her prior experiences. Therefore, in order to overcome these problematics, researcher should be aware of them.

As Finlay (2002) narrates, the need of researcher to prove the credibility of her study leads her to pass through reflexive accounts on her positionality. This process is a self-conscious methodological thinking, in which the researcher continuously monitors and inspects her research process, which leads the transparency of the knowledge as it transforms from personal to public. Accordingly, I pursue my field study as holding the awareness of my being insider. I position myself as an insider who has a prior and tacit knowledge of camera operating, however this knowledge has been under monitoring throughout the research process. Therefore, even though my subjectivity as an insider helps me to access first-hand lived experience, my consciousness makes me take my biases into consideration.

As an insider, accessing the participants and persuading them to be a part of the study was relatively easier when compared to an outsider researcher. Since I know the

participants in person and I have worked together with them in program shootings many times over the years, the trust between us has been shaped rapidly and easily. Besides, I had the opportunity to determine which camera people participate in the study, according to my priorities which mostly concern their occupational experience and their schedules during the field study. Moreover, I could access their programs of camera operating, which helped me a lot while organizing interviews and observations. In addition to these advantages of being an insider, I also felt very comfortable with the participants in working area. I have personal connections with other crew members in the working environment, which also provided me instantaneous solutions to the problems I encountered during the field study. Having a prior knowledge on the corporation and the way how relations work is also another advantage that I benefited from. For example, getting a permission from the managers in order to have the camera people as participants in the study was easy because of my being an employee at TRT. They know me in person and this situation makes them feel comfortable towards the research and field study. Furthermore, as an insider, before the field study began, I also had prior knowledge on the camera operating process of the participants. This leads me to empathy, control and anticipate the process, which is important to access niche experiences, and structure differentiated knowledge on the prior ones. I will mention in detail this process in the following sections. However, this control over the data is also dangerous and challenging in terms of messing with the opinions and biases. I have been always vigilant to my interpretations because of my embodied experiences. I have always interrogated myself in order to maintain the exactness of the data and correspondingly the knowledge. Besides, my being as insider makes the participants omit or ignore some information as they accept me having that knowledge. In these situations, I needed to remind them my position as a researcher-insider instead of a mere colleague. Consequently, throughout the field study, I have always reflected on my position and verified my empathy and anticipations with the participants. In this regard, following the interviews with the observations, and completing the observations with post-observation interviews provide the verification and validation

of the data. Therefore, being an insider affects not only the knowledge that is co-constructed through the research, but also the research design itself.

Camera operating and accordingly embodiment process of camera people can also be studied by an outsider researcher. However, this might lead different findings and different conclusions. Besides, the process of research itself would be different for an outsider. In this sense, being aware of my positionality loaded a different version of responsibility that always kept me awake on my steps. The design of my research is also an outcome of this responsibility which is created for gathering the rigorous information from myself and participants. In this regard, I am aware of the differences between the anticipated and intended data and the data that I received in the end. I am also aware of the differences of the data which are collected from autoethnography and ethnography, as well as from each part in ethnographic study.

In this sense, as mentioned earlier in this section, I designed my research towards gathering the firsthand experiences of camera people (see Table 5.1). These experiences are collected both by a first-person perspective of autoethnography and an ethnographic investigation that provides the ways of living of a group of camera operators. While autoethnography focuses on my own embodied and situated experiences, ethnographic study tries to gather the knowledge on camera operating process of other camera people. As seen in Table 5.1, through autoethnographic study, I research my own camera operating process through simultaneous voice recording while using the camera either on pedestal or jimmy jib in news/talk show programs. This stage of field study is relatively short when compared to ethnographic investigation. This is because, ethnographic stage itself is constructed in two parts which are interviews and participant observations. This stage concentrates on the camera operating processes of my colleagues. However, the context is broader with music-entertainment shows and sports events; and the camera supporting systems that are investigated also include steadicam and hand-help operations. In the following sections, I will try to give the datils of these stages.

Table 5.1 Research Design

	Stage 1	**Stage 2**
Research Method	Autoethnography	Ethnography
Camera People	The Researcher	22 professional studio camera people at TRT in Ankara * at least 5 years of occupational practice at TRT
Camera Types	Studio cameras	Studio cameras
Camera supporting systems	Pedestal Jimmy jib	Pedestal Jimmy jib Steadicam Hand-held
Context	News/Talk shows	News/Talk shows Music-entertainment shows Matches
Data gathering	Voice recording	Part 1: Semi-structured in-depth interviews Part 2: Participant observations + Post-observation interviews

5.1.1 Stage 1- Autoethnography

Custer (2014) describes autoethnography as a qualitative research method investigating researcher's own life experiences in the relations of socio-cultural aspects; while Ellis et al. (2011) explain that this methodology is a total of autobiography and ethnography which conveys the researcher's experiences selectively. Bochner & Ellis (2016) accept the blurred nature of the term of autoethnography which may include many forms of first-person perspective and personal narratives. Therefore, they indicate that any inquiry between autobiographical narrative and self-ethnography could fall in the area of autoethnography. While trying to understand the boundaries of autoethnography, Bochner & Ellis (2016) also consider the facets of autoethnographic inquiry. According to them, researchers are parts of this living world with their important experiences that leads emotional epiphanies in their lives. These epiphanies are there to be discovered, observed, and revealed, because they strongly affect researchers' perceptions and interpretations on other people. In this sense, the authors call researchers to write as writers do, and tell stories as novelists do. This is the way of delivering knowledge of first-person. The authors think, the autoethnographic inquiry is emotional and evocative.

Herein, Anderson (2006) states, limiting the autoethnography as evocative or emotional may omit the other facets of autoethnography, which may possibly provide benefits for other social and humanities inquiries. In this sense, he proposes an autoethnographic inquiry which he calls as alternative autoethnography. This approach has five key features which are "complete member researcher status, analytic reflexivity, narrative visibility of the researcher's self, dialogue with informants beyond the self, and commitment to theoretical analysis" (p.378). First, Anderson indicates the necessity of a complete membership of the researcher which is very understandable in the case of first-person view that an autoethnography holds. Secondly, the researcher needs analytic reflexivity, in which the researcher is aware of her relationality with the research subject. Third, the researcher is visible as her

being a researcher in the written text of autoethnographic outcome. Fourth, autoethnographic inquiry is more than a researcher's mere storytelling. Autoethnography is a kind of ethnography, in which the researcher tackles herself as the part of a larger group, not the victim of solipsism. Finally, the researcher is there to collect and use data in order to understand a social phenomenon through her own experiences. Thus, autoethnographer is committed to the theoretical analysis.

Bochner & Ellis (2016) claim that Anderson tries to appropriate the autoethnography into the mainstream research through founding the analytic autoethnography. Because according to them, Anderson takes very core elements of autoethnography out, which in the end would shift autoethnography from making people feel and empathize the emotions, to placing itself under the control of analysis. This shift may even approach to distant analysis of a detached researcher. Nevertheless, I consider Anderson's analytical autoethnography at the very heart of subjective inquiry. In my opinion, its commitment to theoretical traditions and emphasis on understanding a group of people through first-person perspective does not make it detached from the researcher. Indeed, it presents the validity of autoethnography as a qualitative research method. On the other hand, I appreciate the emotional autoethnography in terms of its - as Adams et al. (2015) state- recognition of particularity and uniqueness of the individual's life experiences, instead of collecting and achieving descriptions on large groups of people. In this sense, readers' reactions to these autoethnographic narrations occur according to what they feel about those narrations, because lived experiences cannot be detached from emotions.

Therefore, I examine the autoethnography that I conducted in this thesis study in-between emotional and analytical autoethnography. I benefit from the theoretical discourse of qualitative research methods, and I tackle this method as a subjective interrogation. I conduct autoethnography to study my own lived experiences of camera operating, which in the end reveals its connections to the culture of camera operating. In this sense, following Adams et al. (2015), as a researcher conducting autoethnography, I admit the peculiarity of my knowledge regarding my camera

person identity and particular camera operating experiences. In this sense, I am aware of the possible connections of these experiences to a larger socio-cultural knowledge.

5.1.1.1 Conduct of Autoethnography

I, as a camera operator and a researcher, designed my autoethnographic study to gather my personal experiences, beliefs, feelings, ideas, and comments through a process of thinking, digging, noticing, acquiring, collecting, and executing my practice of camera operating. With this autoethnographic field study, I aim to identify and understand my embodied being-in-there of camera operating, by revealing all parameters which influence my decision making and action taking processes. Autoethnographic field study was completed in the first quarter of 2018 covering nine hours of working in 2 different TV studios and 3 different program sets within 2-4 people of camera crews while using two different camera supporting systems which are pedestal and jimmy jib. I recorded my voice while I was operating the camera; I tried to cover all my thoughts, beliefs, emotions, and comments about the very instantaneous incidents together with reasons and consequences of my decisions and actions, which led me to reveal my modes of embodiment.

To gather data, I needed to keep my field jottings as sound recordings since the limitations caused by the nature of camera operating practice. Bernard (2011) describes field jottings as what a researcher gets through the day. According to him, human memory is not good enough to remember everything that it faces during the day of field study, so researchers need to write notes down on a notepad. However, during my field study scratching jottings on a notepad was impossible since I had to operate the camera simultaneously while depending on my hands, eyes, and ears together. This situation made me find another solution for the jottings and I decided to record my voice on my smart phone by using its microphone while I was operating the camera. This option also helped me to cover more data than a regular writing on a notepad and transferring the necessary quotations that the director calls out through the intercom system.

While recording my voice, I preferred not to announce it in the shooting environment, because I did not want the other crew members interrogate and therefore lose their concentration. Besides, it would be difficult to handle all the possible and prospective questions on my voice recording which may cause interruptions in my camera operating process. In accordance, I kept my voice as low as I can. So that, people did not notice my field study, they did not change their natural behavior and continued their work, and I was not interrupted by their questioning. However, this low voice caused problems in the transcription of data, I hardly detected some of my sentences.

In addition to my effort on hiding my field study, conducting autoethnography was also challenging in terms of describing my spontaneous bodily movements because of the simultaneous camera operating. I had to operate the camera properly and react to the demands of the director in terms of framing and operating. Both experiences - operating the camera and conducting the autoethnography- require complete attention and awareness because of their nature of spontaneity. Therefore, swinging between two roles as sustaining the quick reactions in both experiences was demanding. In many situations, I managed to record my voice as I perform my experience. However, sometimes I had to prioritize my camera operating. This is because, those situations required full concentration on the task which cannot permit another mental and bodily activity. Thus, whenever I could not capture my ideas on my bodily experiences at that moment, I postponed recording my voice until an opportunity occurs. As soon as I find some time to talk about the just happened actions, I recorded my experiences. Furthermore, I recorded my anticipations and expectations about my prospective operating process just before the program begins. Accordingly, I talked about my interpretations and opinions on my bodily experience as soon as the shooting is over.

This work demanded an effort of processing two embodied being-in-the-world at the same. I was embodied as a camera operator in that spatio-temporality while using the camera in the studio among the camera and broadcasting crew. Additionally, I was also embodied as a researcher in my fieldwork while investigating my former

embodiment. This experience is unique. Besides, becoming aware of my former embodiment is incomparable. As Tami Spry (2001) describes, "performing autoethnography has encouraged me to dialogically look back upon my self as other, generating critical agency in the stories of my life, as the polygot facets of self and other engage, interrogate and embrace" (p.708). So, my embodiment became aware of my other embodiment. One of the most important reasons that made me conscious on my embodiment as a camera operator was my embodiment process as a researcher. As I embodied as a researcher, my embodied being in the world as a camera operator became conspicuous, because my researcher embodiment voluntarily interrupted my camera person embodiment. However, as soon as I noticed that my embodiment became apparent to me, I managed to embody again and focus on the camera task. In other words, I experienced a kind of clash or encounter between my embodiments, which in the end nourished each other, and helped each other to be understood.

Since my embodied being in the world as a camera operator needs concentration and sensorially connection, I had to pursue the field study in relatively steady environment. Therefore, I kept the research contexts limited to news/talk shows, in which mostly the cameras are stable, and the operator does not move or change the frame. I could make this decision thanks to my occupational experience as being an insider. I know professionally that other program contexts are more difficult or even impossible to maintain a simultaneous autoethnographic study. For example, I would not focus on my bodily experiences and record my voice in a basketball match. Since the game is played very rapidly, I would have not any time to be embodied as a researcher. Even though working in a sports event would cause a different embodiment, I had to keep my study limited to the selected program context and omit that possibility. I preferred to understand the embodiment process in those cases through ethnographic study.

In addition to the program contexts, camera supporting systems differ from ethnographic fieldwork. In this autoethnographic study, keeping them limited to pedestal and jimmy jib was an imperative for me, because other camera supporting

systems which are steadicam and hand-held are not the systems that I mainly use. Although I took steadicam training and I used hand-held camera very few in the past, I do not operate these supporting systems currently.

5.1.1.2 Analysis of Autoethnography

After data gathering, next phase was the transcription of the full voice recordings into text format without missing any word or phrase by using a transcription and dictation tool which made me save time than listening the recordings on sound player and texting it on word. Transcription needed to be done in twenty-four hours to keep the memory fresh. As Bernard (2011) indicates, note taking or transcription on the field material should be written each day, because it is easy to forget what is necessary and important for the field study. The researcher should write the thoughts and impressions as soon as possible without letting them fly away from the memory.

As explained above, I transcribed all my voice recordings besides my comments, opinions and interpretations. Even though sometimes transcriptions do not need the full information, I preferred to write down each word in the recordings. Ochs (1979) describes the transcription as the data of the researcher, which is required to be done by considering the goals of the study and definitions of theory. In this regard, as approaching from a holistic phenomenological perspective, I decided to cover all information in the voice recordings, I needed them all. As holding the phenomenological approach, all aspects of camera operating are important in this study, which directed me not to put any data out of transcription.

Transcription of the data is followed by the thematic analysis which begins with coding. Kiger & Varpio (2020) describe thematic analysis as a qualitative data analyzing method in which the researcher investigates for the repeated patterns. It describes the data through a very selective and interpretative approach on deciding codes and constructing themes. Saldaña (2009) describes a code as a word or phrase that summarizes, captures or symbolizes the particular portion of the data that might

be a part of transcriptions, field notes, audio-visual documents, artifacts, e-mails, etc. This summarization is interpretative, so the codes that a researcher writes down for an amount of data can be different from the others' choices. Indeed, a researcher first decode the data, then she encodes it again. Therefore, coding is an analytic process which depends on the researcher and her previous experiences. However, Saldaña also includes the filters into the process. Our perception and interpretation of the data may differ according to the perspective we look into the data. In this sense, I can state that, my main coding filter in this thesis study is descriptive, in which I tried to summarize the quotation into a topic. Saldaña (2009) examines descriptive coding as the primary coding for qualitative data, particularly for the initial coding. In addition to descriptive approach, I sometimes used structural coding -long phrases that is used for longer extracts from text-, process coding-summarizing the text in -ing words- and in vivo coding -using the participant's own words- (Saldaña, 2009). Saldaña accepts all these coding approaches under elemental method, in which the researcher reviews the body of the text and assigns labels to the text excerpts.

Saldaña (2009) also examines the coding process in two cycles; while first cycle is the initial coding phase, second cycle needs more analytic skills to classify, integrate, synthesize, and conceptualize the data. In the analysis process of my autoethnographic transcriptions, I used this two-cycled coding process before finalizing the themes. Indeed, my process did not go in a chronological order, I go and come back several times among codes and themes. However, this back-and-forth analysis occurred mostly in ethnographic stage, especially when I was analyzing the data from interviews.

As I indicated above, I mainly used descriptive approach while tackling first cycle coding process. I tried to summarize a piece of text that holds an idea towards the goals of the thesis. Braun & Clarke (2006) states, the codes appear interesting and meaningful to the researcher as it refers the most basic element of the data covered in the certain piece of text. I analyzed the whole data by keeping this explanation in my mind. Besides, as following the authors, I paid equal attention to each part of the data while trying to understand them towards patterns and possible themes. Braun &

Clarke (2006) suggest the researchers to find a method for indicating the potential patterns and identifying the data segments. Here the critical issue is to match the data set with the code without leaving any data segment uncoded. In this process, a code may be assigned to several data items and an item may be placed under different codes. This indicating method can be applied differently according to the context that the coding process is handled. For example, I used Microsoft Office Word for autoethnographic data, while I preferred using a specialized software on data analysis which is called MaxQDA in ethnographic study. In MS Word, I kept the data set on the left and wrote the codes on the right of the screen as if creating explanations. Below (Figure 5.1), there is an example from my first cycle coding of autoethnographic data showing how I descriptively coded the data segment. The language of the transcription is Turkish because I recorded my voice in my native language. Therefore, initial coding that tackles this transcription is pursued both in Turkish and English till the codes properly structures the themes in the end.

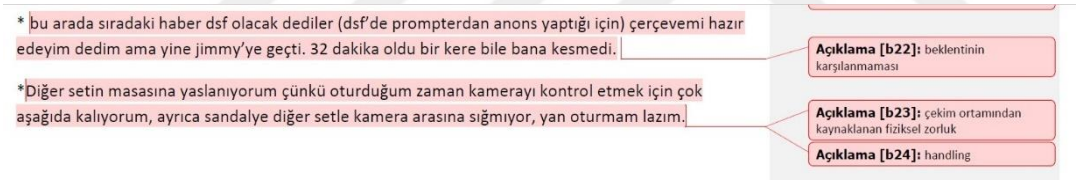


Figure 5.1 1st cycle coding during autoethnographic study

Braun & Clarke (2006) continue to give suggestions. According to them, the researchers should code as considering the possible number of repetitive patterns. Besides, they should keep some relevant surrounding data around the core of the code in order not to lose the context. In addition, Kiger & Varpio (2020) suggest, a code in the first cycle coding, should be well-defined which in the end will not overlap with another code.

Taking these suggestions into consideration, I pursued the first cycle coding to identify the repetitive patterns of initial codes. In this process, the data segments

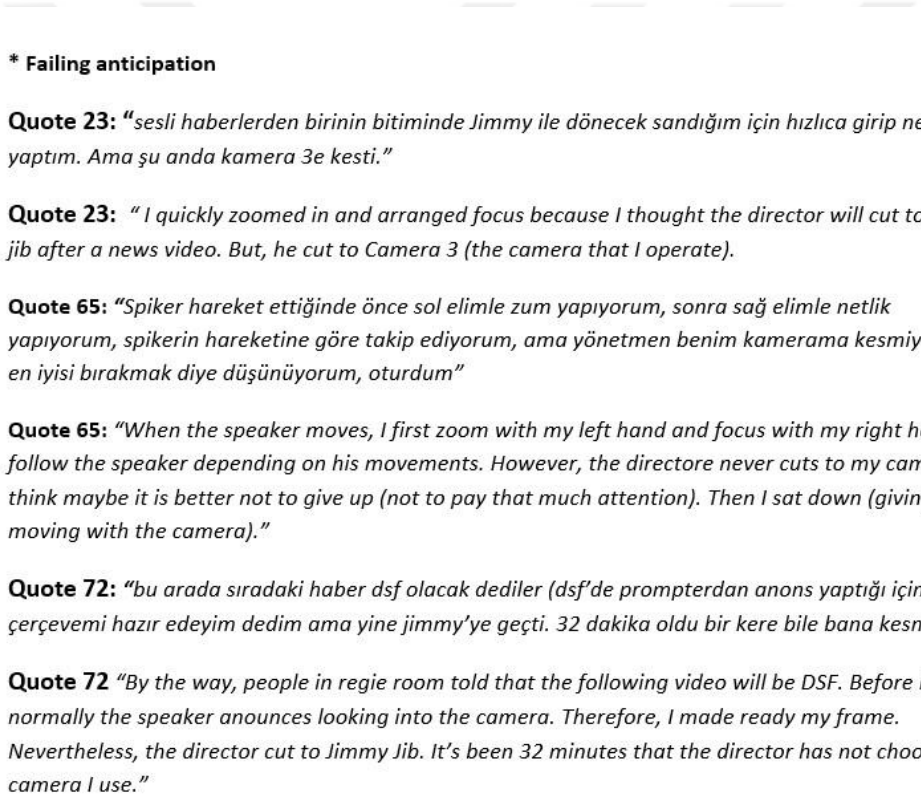
began to come together around subcodes and codes. Those patterns made me decide if that initial code will be examined as a code, subcode or code family. For example, in the coding process that is shown in the Figure above (Figure 5.1), the initial code written as *'beklentinin karşılanamaması*' - translated as '*failing anticipation*'- in the end was examined as a subcode under the code of '*anticipation*'. To continue with this example, the code of '*anticipation*' includes another two subcodes which are '*un-anticipation*' and '*re-anticipation*'. So, here the data segments concerning my anticipation, un-anticipation, re-anticipation and failure of anticipation altogether create the code of '*anticipation*', which in the second cycle locates itself under the theme of '*situational awareness*'. Indeed, this code-subcode organization can be regarded as a transition step from first cycle of coding to the second cycle.

Second cycle of my autoethnographic coding includes expansion and classification of the existing codes as well as adding new codes or synthesizing them with old ones. Through this cycle, codes are reorganized and if needed the data is reanalyzed. Before continuing with structuring the themes, Saldaña (2009) suggests to re-check the current codes in case there is necessity for re-coding of the data. This is because, new wordings for the codes can be discovered, some codes that describing similar ideas can be brought together, some individual codes can be identified and examined again, and some codes that seems marginal for the research can be tackled in a more analytic way. Following these suggestions, I re-organized my codes, which shaped a smaller and more selective list of categories, clusters of concepts, which in the end shaped the themes of the analysis. Interestingly but consistent with the literature, some initial codes turned out to be a theme, or some codes that seems very important in the first cycle found itself a place as only a subcode.

Considering the definition of the code, a code can be about different things, which makes it located under several themes simultaneously. In order to visualize this situation, I created another wording document to study all the themes and codes together. I listed all the themes, codes and subcodes as an outline; then I pasted all quotations under related codes or subcodes. The quotations were numbered before this process, so I could copy the quotation under another code or subcode when

needed. For example, in that word document, the quotation numbered 23 is under sub/codes of "*failing anticipation*" and "*focus*" because it says: "I quickly zoomed in and arranged focus because I thought the director will cut to Jimmy jib after a news video. But he cut to Camera 3 (the camera that I operate)*".*

Below, I put an example showing quotations under the "*failing anticipation*" subcode. The quotation 23 can also be seen. The original quotes in Turkish, and under them their translations are given in English. In the original word document, I only kept the Turkish quotes. English translations were prepared to be presented in this thesis.



*** Failing anticipation**

Quote 23: "*sesli haberlerden birinin bitiminde Jimmy ile dönecek sandığım için hızlıca girip netlik yaptım. Ama şu anda kamera 3e kesti."*

Quote 23: *" I quickly zoomed in and arranged focus because I thought the director will cut to Jimmy jib after a news video. But, he cut to Camera 3 (the camera that I operate).*

Quote 65: "*Spiker hareket ettiğinde önce sol elimle zum yapıyorum, sonra sağ elimle netlik yapıyorum, spikerin hareketine göre takip ediyorum, ama yönetmen benim kamerama kesmiyor hiç, en iyisi bırakmak diye düşünüyorum, oturdum"*

Quote 65: *"When the speaker moves, I first zoom with my left hand and focus with my right hand. I follow the speaker depending on his movements. However, the directore never cuts to my camera. I think maybe it is better not to give up (not to pay that much attention). Then I sat down (giving up moving with the camera)."*

Quote 72: "*bu arada sıradaki haber dsf olacak dediler (dsf'de prompterdan anons yaptığı için) çerçevemi hazır edeyim dedim ama yine jimmy'ye geçti. 32 dakika oldu bir kere bile bana kesmedi"*

Quote 72 *"By the way, people in regie room told that the following video will be DSF. Before DSFs, normally the speaker anounces looking into the camera. Therefore, I made ready my frame. Nevertheless, the director cut to Jimmy Jib. It's been 32 minutes that the director has not choose the camera I use."*

Figure 5.2 Quotations under the code of 'Failing anticipation' from autoethnographic study.

This method is challenging because in the end of the analysis I had tens of papers and had to type Ctrl+F in order to find the quotation, code or subcode that I was

looking for. However, I preferred to keep this method because it was easy for me to follow the codes and subcodes and their relations with quotations. Nevertheless, this method is not useful in ethnographic stage, in which the data is huge because of 22 in-depth interviews, 14 participant observations and again 14 post-observation interviews. Therefore, during the analysis process of ethnographic data, I used the software of MaxQDA, which is more suitable for dealing with numerous codes and subcodes.

Finally, for the analysis of autoethnographic field study, I developed seven themes out of tens of codes and subcodes. According to Rossman & Rallis (2017) 'theme'- as an abstraction- is a phrase or sentence that describes and explains the process or connection of the pattern which occurs across the codes and subcodes. Through a theme, a researcher argues for her opinions and interpretations. Consistent with this definition, the themes collected from this autoethnographic study are **distribution of tasks, context, skilled learning, body, situational awareness, composition,** and **product qualities** (see Figure 5.3).

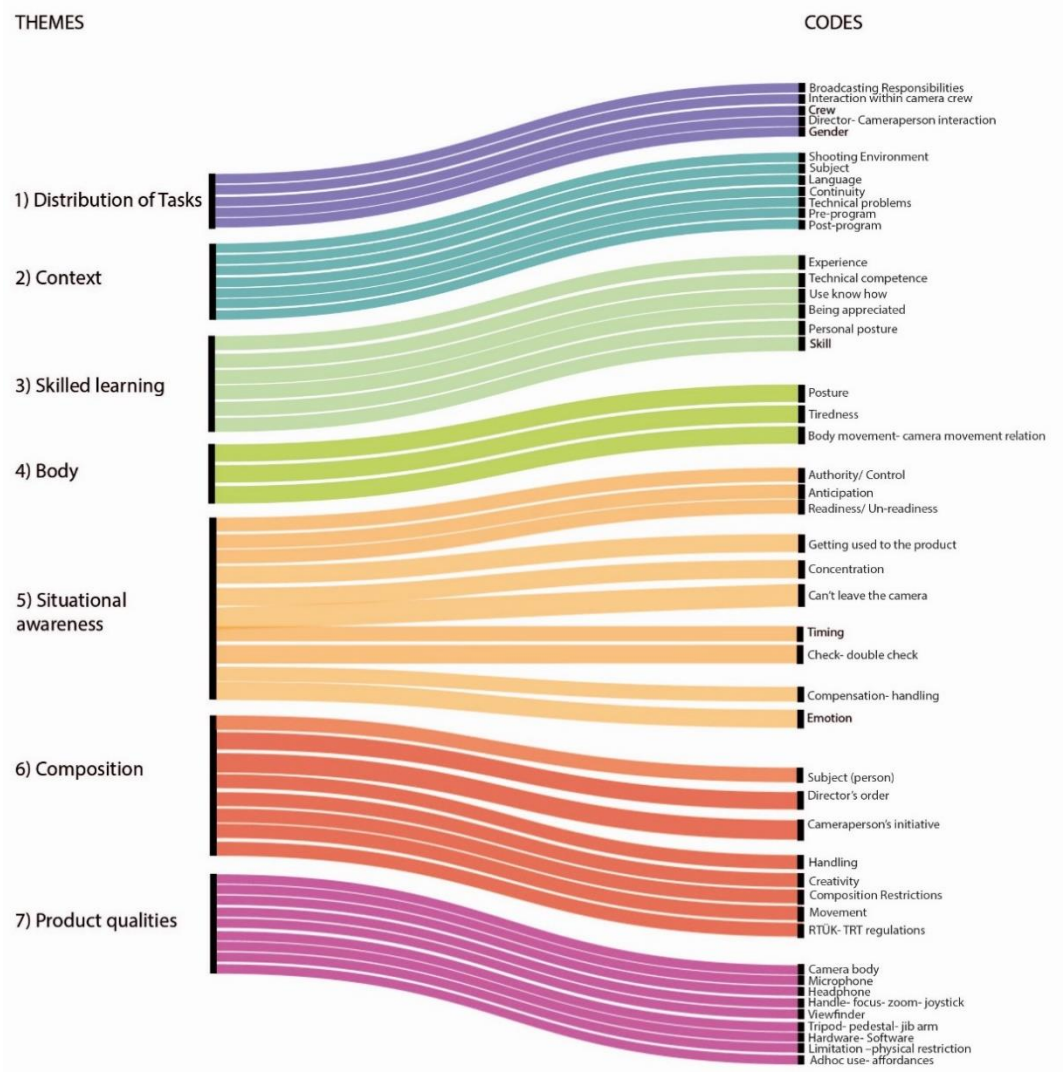


Figure 5.3 Themes and codes in autoetnographic study (Data visualisation: Researcher & N. Cemelelioğlu)

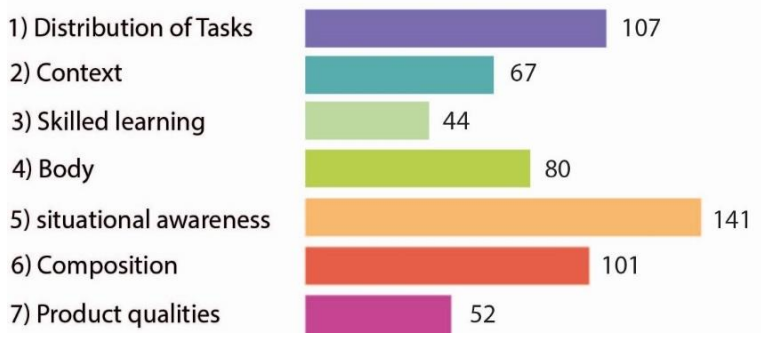


Figure 5.4 Number of coding in each autoethnographic theme

Figure 5.4. also shows the number of coding in each theme, which presents that 'situational awareness' is the most mentioned one. On the other hand, it seems that autoethnographic study pays the least attention to the learning process of this skilled practice. Below, in Table 5.2, I also give brief explanations on the coverage of these themes.

Table 5.2 The themes of autoethnographic study

Distribution of tasks	The head of the camera crew assigns a camera and its tasks to a camera person. This process depends on various factors including the occupational competence, expertise, and seniority of the camera person, or the personal relations.
Context	Context includes the shooting environment, the people working together with the camera person, and the physical surrounding that she pursues her practice.
Skilled learning	Camera operator has a specific expertise that affects her camera operating process. This expertise is related to her process of becoming a camera person together with the skillful actions.
Body	Camera operator uses the camera through her body and bodily movements. In this sense, body becomes at intersection of camera operator and the camera.
Situational awareness	Camera operator pursues her task through a situational awareness which provides her the control over the situation and readiness for the upcoming circumstances. An operator stays bodily ready and makes the composition on her monitor ready for the broadcasting.
Composition	Every decision and action that a camera operator takes is towards creating the visual image on the monitor. The composition that she produces is there to be broadcasted. This composition is also affected by the whole crew's intentions.
Product qualities	The flow of camera operating is influenced by the interaction between the camera operator and the camera. This interaction is identified through the qualities of the products.

These themes were not the final results of the autoethnographic study. Thanks to the conference paper written for UTAK2018, these themes entered an interpretation process, which made me reflect on the process more analytically. Through these themes, we as the authors, achieved two main aspects of camera operating process. The first one is **'interacting among and between the crew members and the director'**. This aspect includes mainly the themes of distribution of tasks and context. The other aspect was **'camera operating as a bodily practice'** which covers the rest of the themes as investigating camera operating through skillful bodily experiences (Gürtekin & Kaygan, 2018). These results coming from autoethnographic themes were presented in UTAK 2018.

This process on refining the themes and achieving the results was vivid and improving. The transformation of my thoughts on my autoethnographic narrations showed me the numerous opportunities to reflect and interpret on the data. Together with the themes, these results of autoethnographic study both provided a base for the rest of the field studies and helped me to identify the interview questions and observations sheets of ethnographic study. I designed the flow of the interviews and observation sheets through the lens of autoethnographic results. Besides, the codes and themes that were produced in this Stage created the base for analysis phase of ethnographic stage. I benefited from these codes and subcodes in ethnographic study as ready and established codes. This helped me to construct the ethnographic analysis on a set of codes, categories, themes, and results. In this regard, ethnographic study provided a validation for autoethnographic narrations.

In the next section, I will try to explain this ethnographic stage in detail together with its theory, conduct, and analysis. I will also mention its relations to autoethnographic study.

5.1.2 Stage 2- Ethnography

According to Saldaña (2011), ethnography, as a research method that requires a long-term fieldwork and produces a written product, documents the social and cultural life of a group of people as investigating their ways of living. As devoting a long time of investigation on camera operators' process of camera use and embodiment in their sociocultural Lifeworld, I designed the second stage of my field study as an ethnographic inquiry which covers two parts of investigation. First part is consisted of semi-structured in-depth interviews with camera people working at TRT who operate cameras in multicamera system. These interviews are followed by the second part which includes both participant observations of these camera people while they are operating cameras in specific TV shows, and secondary interviews with these camera operators just after the observations, which I call 'post-observation interviews'.

First part of ethnography started with the semi-structured in-depth interviews. Saldaña (2011) mentions, qualitative researchers prefer conducting interviews in order to gather the data in participants' own sentences which are their ideas, experiences, feelings, opinions, beliefs and values. Wengraf (2001) explains the characteristics of qualitative interviews. According to him, interviews are designed to gather and produce knowledge. They are special ways to create conversations between two parties who are researcher and participant. Interviews aim to collect depth information and they are planned or prepared like other research methods, however this preparation can be partially conducted or largely left for researcher's improvisation. Here, Saldaña (2011) indicates, the characteristics of research topics and the aim of the researchers lead the interviews to range from spontaneous and explorative to strictly prepared and determined. Between these edges of unstructured and strictly structured ones, semi-structured interviews take place.

Davies (1999) mentions, even though the flow of questions is mostly pre-determined in semi-structured interviews, participants are led to give open-ended responses through expanding, exploring and detailing questions to express themselves

sufficiently. According to Wengraf (2001), semi-structured interviews require fully preparation, but prepared questions are designed to be open to improvisation according to the interviewee's responses. In case the participant's responses cannot be predicted beforehand, the interviewer should be skilled and experienced enough to continue through her own improvisation to assemble productive information for further transcriptions, analysis, and knowledge production. Therefore, implementing semi-structured interviews are not easier than structured ones because responding through improvisation needs more training and mental preparation before the interview sessions. Besides, according to Wengraf (2001) *in-depth* interviews are both to get detailed knowledge and to investigate in-depth sense of a phenomenon which may be seen straightforward while it is actually more complicated. In this regard, semi-structured in-depth interviews are used to receive detailed and deeper understanding of a phenomenon, in which the interviewer prepares the questions before the sessions as she keeps them open to improvisations according to the participants' responses.

In addition to interviews, this thesis also consults to participant observations to capture lived experiences. As Bernard (2011) indicates, participant observations are the main way of data gathering in cultural anthropology. Through this method, researcher makes participants comfortable about her presence around them while she observes and records data. Because as Murchison (2010) states, while participant observer is collecting data, she stays close to the subject and the action, and records participants' experiences properly by using note taking, voice recording, video making, photo taking, etc. Staying next to participants and trying to understand them as being with them can be interpreted as also a management method, in which the researcher uses her persuasion skills. DeWalt & DeWalt (2011) reveal another aspect of participant observation: through this method, researcher understands not only the explicit aspects of the daily lives of a group of people, but she also integrates in the tacit ways of living with this group. In this regard, participant observation makes the researcher access both to the straightforward knowledge and what lies beyond it that stays outside of our awareness. Therefore, being with the participants in their

naturalistic settings helps researcher to understand the nature of phenomena, of which DeWalt & DeWalt (2011) describe as the aim of participant observations. According to them, participant observation is not mainly interested in searching and showing how big, large, important, and distributed the phenomena is. The focus is on the phenomena itself, like structured or semi-structured interviews.

In this regard, I, via conducting both semi-structured interviews and participant observations, mainly tried to understand the nature of camera use in a group of camera operators. With these methods, I tried to reveal how other camera people - my colleagues- execute their own camera operating body techniques and embody themselves in their Lifeworld. I searched, in which ways different camera people with different backgrounds, experiences and capabilities establish embodiment while they are interacting with any materiality and people in the Lifeworld. Next to the nature of camera operating, this attempt may also provide me an insight to understand the subculture of camera operating.

Throughout the ethnographic field study, I conducted 22 semi-structured in-depth interviews with my colleagues who work at TRT in Ankara. 1 of the participants was observed before the in-depth interview started, on the other hand, 14 participants were observed after the in-depth interviews. These 14 participant observations were followed by post-observation interviews. Here I should shortly mention that, conducting observations after the in-depth interviews provided me complementary data as letting me follow whether camera operators' bodily experiences are consistent with their narrations in in-depth interviews. All these data gathering methods provided me enough cumulative data on participants' embodiment processes.

I decided the participant sampling according to a criterion of at least 5 years of experience as a camera operator in multicamera systems at TRT. This is because, this thesis is interested in the bodily practices of skilled and expert operators to understand the relations of this skill and expertise to their embodiments. Accordingly, I wished the participants to have some experience in working diverse

program contexts and with different camera supporting systems. Thanks to my being insider, I have the corporation knowledge: at TRT camera people require some years of occupational experience -generally 5 years- to be appointed to the specific shootings such as music programs or football matches. Besides, they also need some particular trainings to operate jimmy jib and steadicam, which shows the requirement of some occupational experience as a camera operator. Thus, I made my sampling as considering this reality, which led me to keep the camera assistants and novice camera operators out of the scope. In addition, as using the advantage of being an insider, I had not determined the exact participants before the ethnographic study started, so I let the process to be more improvised by leaving some flexibility for who would participate in the field study. This mainly happened because of my and their working schedule, in which it was difficult to organize meetings and observations during very busy shooting seasons. Following this sampling process of the participants, in the table below, I present the brief information on my ethnographic study as also showing what is completed for each participant.

Table 5.3 Stage 2-Ethnographic Study

	Part 1	**Part 2**		**Operated camera supporting system during observation**	**Observation environment**
Participant 1	Semi structured in-depth interview	-	-	-	-
Participant 2	*Pre-interview observation Semi-structured in-depth interview	-	-	Hand-held	Indoor-Sports hall Live handball match
Participant 3	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Camera on pedestal	Indoor-TRT Studios Live music show
Participant 4	Semi-structured in-depth interview	-	-	-	-
Participant 5	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Steadicam	Indoor-TRT Studios Live music show
Participant 6	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Jimmy jib	Indoor-TRT Studios Live news program

Table 5.3 Stage 2-Ethnographic Study (continued)

	Part 1	**Part 2**		**Operated camera supporting system during observation**	**Observation environment**
Participant 7	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Camera on pedestal	Indoor-TRT Studios Recorded music show
Participant 8	Semi-structured in-depth interview	-	-	-	-
Participant 9	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Jimmy jib	Indoor-TRT Studios Live news program
Participant 10	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Jimmy jib	Indoor-TRT Studios Live talk show
Participant 11	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Steadicam	Indoor-TRT Studios Live music show
Participant 12	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Camera on pedestal	Indoor-TRT Studios Live music show

Table 5.3 Stage 2-Ethnographic Study (continued)

	Part 1	**Part 2**		**Operated camera supporting system during observation**	**Observation environment**
Participant 13	Semi-structured in-depth interview	-	-	-	-
Participant 14	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Camera on pedestal	Indoor-TRT Studios Live music show
Participant 15	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Steadicam	Indoor-TRT Studios Live music show
Participant 16	Semi-structured in-depth interview	-	-	-	-
Participant 17	Semi-structured in-depth interview	-	-	-	-
Participant 18	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Jimmy jib	Indoor-TRT Studios Live music show

Table 5.3 Stage 2-Ethnographic Study (continued)

	Part 1	**Part 2**		**Operated camera supporting system during observation**	**Observation environment**
Participant 19	Semi-structured in-depth interview	Participant observation (no access to intercom)	Post-observation interview	Camera on pedestal	Indoor-Sports hall Live handball match
Participant 20	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Jimmy jib	Indoor-TRT Studios Live music show
Participant 21	Semi-structured in-depth interview	Participant observation (access to intercom)	Post-observation interview	Camera on pedestal	Indoor-TRT Studios Live music show
Participant 22	Semi-structured in-depth interview	-	-	-	-

5.1.2.1 Conduct of Ethnography Part 1- Semi-structured In-depth Interviews

I started ethnographic study with semi-structured in-depth interviews, through which I aimed to receive detailed information on the nature of camera use from the participants. All interviews were voice recorded. Each interview took approximately 2 hours and most of them were held in a conference room at TRT campus in Ankara. Before starting the session, I asked participants' permissions for voice recordings and I also asked them to read, approve and sign the consent form by ensuring them the interviews and prospective participant observations will be used only for academic purposes. All participants were comfortable with signing consent forms, none of them rejected. While conducting interviews, flow of interview questions slightly altered according to the rhythm of the conversation, participants' availability, and their attitude and familiarity to the phenomenological point of view. Nonetheless, I still tried to stay on course, stimulate the participants via probes, and asked interview questions as it can be seen in appendix A.

As a characteristic of semi-structured interviews, before the interview sessions, I organized the interview questions and reflected on my secondary questions and probes according to the possible responses of participants. Indeed, the questions were set into their finalized version after a few interview meetings, and the flow became smoother and more fluid. This helped both me and the participants to feel in the conversation instead of experiencing a series of mechanical questions and answers. Naturally, the interview questions were designed as reminders for me to follow the flow and to keep the interviewees on the track (see Appendix A). Especially the secondary questions and probes were not directly asked to the participants, I used them to follow what was narrated until that moment, to open the conversation into my intended flow, and to keep the participants' interest as high as possible. Following the phenomenological approach, I did not intend to interrupt their narrations with questions and remarks, instead I wished them to tell their stories as much as they can.

The questions were grouped according to the themes of the questions and prospective answers to them, with the information coming from the autoethnographic data. I placed the questions in four parts in the flow. I started with warm-up questions which aim the participant feel comfortable about the rest of the interview. Indeed, warming up was relatively easy, because the participants had known me in person for some years. This part also focuses on the skilled learning by asking how the operator started and became a camera operator over time. In addition, autoethnographic results showing the interaction among people led me to arrange a question asking about the multicamera system at TRT. The question also has extensions towards the interactions of the operator with the camera and other equipment by interrogating the camera supporting systems that the participant can use.

Second group of the questions mainly focused on Lifeworld as asking the interviewee about her preparation for the program and interactions with people. Here, the autoethnographic results have a great impact on the questions. Especially, the theme of 'context' represents the questions under the investigation of Lifeworld in in-depth interviews. Here, I aimed to gather the information on intersubjective relations by taking the autoethnographic data as a base for my research.

Further, I asked about the camera and body relations, through which I tried to reveal embodied moments of the operator. This part concentrates on the interactions with the product and its extensions to the relations with the composition through the bodily movements. Because bodily movements lead the camera movements, which creates an alteration in the composition. Therefore, bodily practice plays a central role as a surface of interaction. Moreover, product and its qualities serve as a mediation between the body and the visual image, which is also defined through the camera operator herself. Because the personal resource of camera operator as a skilled practitioner and expert user creates the way how she interacts with the product and how she achieves her intended frame on the monitor, which defines her being a good or insufficient camera person.

Finally, in the interviews, I asked if the participant wishes to add anything before closing the interview session. With these questions in flow, I targeted the general camera operating culture and participants' general ideas, thoughts, beliefs, and comments on camera operating practice. As indicated above, even though I pre-planned this flow, the exact flow of each interview differed from the other one because of the personal narrations and the priorities of each participant.

During the interviews, I felt that participants were comfortable while telling me their stories because even though I was sitting there as a researcher, they continued to accept me as their colleague as well. This perception sometimes led them to forget my researcher position. Besides, although before each interview session I asked them to accept me as a researcher who has known nothing about camera operating, in order to make them talk about their camera operating experiences without ignoring any details; they time to time forgot this remark which made me remind them about my positionality and ask more detailed questions to receive relevant answers. Indeed, their acceptance me as a colleague was more advantageous than disadvantageous. This is because, their comfort made them trust in me and narrate more freely without worrying about the information they gave. This concludes in relatively long interview sessions which cover various aspects of their camera operating experience including their relations in the shooting environment and in the corporation. Besides, knowing me as their colleague made them discuss, and give details and niche information on their camera operating process, because they were sure that I was able to understand the flow of their narrations.

Furthermore, being an insider also helped me while following the interviews. For example, as participants specifically mentioned in-depth about their experiences, I understood what they were indicating by heart because of my occupational experience. I know the corporation, I know the studios and on-location programs, I know the equipment and I know the people around. This helped me to empathy with the participants and understand their concerns quickly. Additionally, this situation provided me an important opportunity to pursue the flow of interview sessions

smoothly. On the other hand, their familiarity with me led the participants to talk more as expanding the interview sessions towards around 2 hours.

To conclude, holding both advantages and disadvantages of being an insider, through twenty-two semi-structured in-depth interviews, I collected the camera operating narrations of my colleagues. Fortunately, I could receive various answers to my questions, which uncover camera operators' approaches to camera operating practice in distinct ways. They mentioned their experiences, interpretations, opinions, emotions, expectations, and problems during these interview sessions. Even though, there were several interviews in which interviewees stuck to an idea and brought the conversation to the same point round and round to tell the issues prior to them instead of narrating their specific embodiment moments of camera operating, under favour of the rest of the conversations I managed to collect plenty of embodiment stories from them. Although, some of these narrations are refined sentences that were gone through cognitive process, there are still very spontaneous reactions revealing instantaneous embodiment processes. In other words, the information they provided helped me to interpret their embodiment processes. Embodiment is something that they are not aware of; because they become focused on camera operating instead of their bodily movements, people around them or the equipment they use. Therefore, those embodiment moments are there for the researcher to be discovered and revealed. After the transcriptions of these interviews, I felt and saw the diverse aspects of these embodiment processes which were also expanded by the data coming from participant observations and post-observation interviews.

5.1.2.2 Conduct of Ethnography Part 2- Participant Observations and Post-observation Interviews

After semi-structured in-depth interviews, participant observations and secondary post-observation interviews took place. As seen above on the Table 5.3, not all the participants were observed. The most crucial reason is the availability of the participants for the observation. This availability issue caused an inconvenience for

me to arrange observations in participants' natural working environments. Especially, catching an interviewee while operating jimmy jib or steadicam was challenging. Because these camera supporting systems require specific training to be operated at TRT, which results in limited number of camera people who can operate them. Nevertheless, the camera people that participated in the observations provided sufficient data for me to understand their creating and sustaining instant embodiment moments. Therefore, I decided to finalize participant observations and post-observation interviews with 14 camera operators.

As DeWalt & DeWalt (2011) indicate, participant observation process is something tacitly understood. A researcher puts herself into the group of research subject and live as they live, in order to understand the other as a self of other. In this process, the researcher tacitly knows how to shape the research, how to collect and record the data and how to interpret it. In this sense, I as a participant observer lived a similar process, in which I directed my decisions and actions to arrange the most appropriate observations and to get the most appropriate answers to my research questions. Thus, I decided to conduct a pilot study for the participant observations, which was supposed to guide the rest of the study. I observed two camera persons -apart from the other participants- while they were operating cameras, which presented me that my focus was on the interactions of the camera people. Therefore, reflecting upon the bodily experiences and embodiment processes of camera people, I designed my participant observations to cover all interactions of the operators in their Lifeworld and to note their chronological bodily movements and postures, with their connections to the visual images that are being produced. Thus, I used AEIOU (activities, environments, interactions, objects, and users) observation framework which allowed me to cluster the observed data and pay attention on interactions and activities of camera people.

AEIOU framework was first developed in 90s by E-Lab -a design firm which adopted ethnographic methods while researching customer's behaviors- and has been used as a data recording tool in observations. Wasson (2000) as a researcher who worked for E-Lab in those years, reports this framework as a heuristic tool,

which provides an opportunity for researcher to interpret observations. She notes, they primarily used AEIOU framework to look at and understand a specific situation; so, the interactions between elements of the framework are worth more attention than understanding them separately. According to Wasson, activities element in AEIOU means the actions that people desire to achieve, while environment refers the whole area in which the activities take place. Interactions are described by Wasson as all relations between person and person or person and objects/systems. Objects element in the framework indicates items in environment that people use, when users refer the ones who perform behaviors as consumers.

Following Wasson's team, AEIOU framework has been conducted in design research in different areas. For example, Maximo & Lau (2021) benefit from the observation model to develop walking aids such as umbrella, walking stick and hiking poles. According to them, AEIOU helps in terms of identifying and understanding the patterns of how people use and act in their natural environments. Another example is the research of Lim (2021) that aims to develop a framework for emotional tactile interactive systems. In this study, the author conducts AEIOU observation model while analyzing six interaction design projects. She wishes to understand the relations between human-other humans, human-activities, and human-objects, through which she interprets the most crucial item to be transported to the design solutions. While conducting this AEIOU framework, Maximo & Lau (2021) examine it under structured observations and Lim (2021) presents it as a research method with a great potential of factor analysis. Both researchers focus on different aspects, but they elevate the powerful features of the observation model. In this sense, AEIOU is a structured observation method because of its requirement of preplanning before the observation is conducted. This leads researchers to organize their ideas before the observation while taking the research questions into account. Besides, it allows researchers to analyze each factor in the context of experience as it covers all the aspects of relationships.

As created in a design firm and for user research, since then as used in different design research, AEIOU framework seems to be accepted in design studies as a

methodological tool that helps to identify the interactions while underlining the holistic nature of the experience. With these potentials, it served me as an important research tool while investigating the bodily experiences of camera operators. This is because, my participant observations did not only aim to watch and note the experiences down, but also to fully understand the relationality between the camera person, the crew members, the environment, the context, the equipment, and the picture. In this regard, AEIOU framework coincides with the phenomenological account which prioritizes the interactions. However, I still needed to interpret the framework according to the dynamics of my research and the outcomes that I received from autoethnographic study as well as in-depth interviews. First, even though Wasson (2000) specifies the element of users as consumers, I took it as the ones who perform using activity as operating and functioning the product. Because in camera operating case at TRT, consumers and users are not the same people and do not need to be. Therefore, as also can be seen in the studies of Maximo & Lau (2021) and Lim (2021), although this framework was designed for consumer studies, it is also utilized in user research. Moreover, since each research topic is idiosyncratic, I arranged and adjusted the framework according to the needs of my ethnographic study considering the impressions and feedback that I received from my pilot observations. Besides, I benefited from the previous field studies which revealed the prospective focus of the observation. With these pilot observations and previous studies, I noticed that I gave a great importance on the actions that camera people took, together with their interactions within the Lifeworld. Consequently, due to the importance of bodily experiences of camera operators and their becoming within this decision makings and action takings -as differentiated from original AEIOU framework-, I designed the *interactions/activities* part as the core of my observation (see Appendix B). This part become the main part of the observation sheet while the other elements of AEIOU stayed as smaller boxes, in which brief and descriptive information is supposed to be given. Finally, the observation sheet was designed under four elements asking specific questions: *Environment/objects* part asks the description of the TV program, studio or location information, the number

of camera and camera people. *User* element asks which camera is used by the user and her characteristics together with her occupational experience. *Interactions* element focuses on with whom and what the camera person engages. As explained in detail above, the part of *interactions/activities* presents the whole experience of the camera operator by noting all actions, reactions, and relations.

Then, before the participant observation started, I had prepared myself to this second stage of ethnographic study by either listening to the in-depth interview or reading the transcription of the interview of that specific participant. This made me remember what the participant had narrated and what aspects he had focused on and elevated in the interview session.

During the participant observations, I was on the shooting location mostly sitting close to the participant as keeping him within my sight while he was operating the camera. Nearly in all observations I could have access to intercom, which provided me the same information that comes from regie room to the participant. This expands my experience as being a researcher there, in terms of reinforcing my understanding of the participant's position in the shooting environment -both physically and socially. Hearing the regie room through intercom also supported my perception and comprehension concerning the reasons and consequences of decisions and actions of the camera operator. Having access to director's commands and the flow of broadcasting, pulled me in the world of interactions and located me on the edge of camera person's embodiment process. In sum, as a researcher who investigates the intermingled interactions of camera operators, I was also at the intersection of interactions including my holding of observation sheet, watching the camera person and the context, hearing the regie room, and taking notes.

With the help of AEIOU observation sheet, I could note chronological activities and interactions of camera operators in detail such as their bodily postures, positions, and movements. This let me identify interesting and worth to speak moments on the paper and keep them in mind in order to discuss with the participant afterwards. Participant observations were crucial to verify the data gathered from in-depth

interviews because they provided me an opportunity to see if activities of camera people are consistent with their narrations or to what extend they perform their stories during momentarily challenges in shootings of TV shows. Besides, participant observations left me data on camera people's instant reactions to the environmental and crew related confrontations or directors' wills, as well as their initiatives on decision making and action taking processes; which was very difficult to receive from in-depth interviews. Since cameramen are not focused on their bodily movements or do not tend to raise very niche hard-to-be-recalled information, observations are the opportunities to gather data on these obscure situations.

Observing various camera operators using cameras on different camera supporting systems in different program contexts also presented me how countless possibilities of embodiment processes occur, interrupted, re-gained, and sustained in countless times in a duration of a TV show. In addition, participant observations revealed that each embodiment moment is unique, since each participant has specific interaction patterns, bodily movements, action motives and thinking processes. For example, while observing different jimmy jib operators, I encountered different interaction motives: one of them was using pan-tilt directions of joystick different than the others, one another preferred wearing camera's headphones than bringing his own; while one of the operators was checking the floor of the studio by his feet and the other one just stepped to the right places by heart without requiring feedback.

After completing each observation, I continued with post-observation interview. These interviews generally took place in the studios or places around the studios possibly just after the participant observations. This is because I aimed the participants to recall as much as they can about their just-finished camera operating experiences. In some interviews, I managed to keep them close to the cameras, so that they could show a specific body or camera movement, or they could indicate a camera part directly on the product.

Participant observations and the following post-observation interviews complete each other; as observations record the activities and interactions, the latter one

investigates the reasons and results of them. Post-observation interviews differentiated from the semi-structured in-depth interviews in terms of its planning and conduct. Post-observation interviews did not pass through a pre-planning and structuring process. The questions and the flow were shaped according to my research background on that specific participant and according to my notes on my observation sheets. These notes included the descriptions of the camera operators' movements, my interpretations on these movements, and my anticipations concerning the camera operators' prospective movements. These notes sometimes implied my anticipation or estimation because of my positionality as an insider, sometimes tried to understand the reason of a bodily activity or sometimes merely described a movement and its effects on the visual image. After the observation finished, I asked about these notes to my participants. Thus, I also used these post-observation interviews as a chance to verify my anticipations, predictions, or estimations about the activity/interaction notes. Post-observation interviews contribute to the study also in another way: they uncover how participants react when they are implied about their irresponsible or incorrect actions -if ideal situations of camera operating are taken as references- such as taking their headphone out during the program or sitting on a chair while they are supposed to be standing. In some incidents, they tended not to accept the data on observation sheets, or they insisted on rationalizing their actions. On the other hand, this situation shows, participants were quite natural during the observations in their own performing areas -studios and other shooting locations-. This may be because they focused on their task rather than on my being there as a researcher.

Being their colleague and occupying in my own Lifeworld during the observations made me invisible enough for the participants and made them behave -as far as possible-unaffected. Thus, I can state that being an insider is more advantageous during the participant observations when compared to in-depth interviews, Because, unlike in-depth interviews, participant observations and most of the time post-observation interviews took place in crowded areas, in which other camera people and broadcasting crew also work. Therefore, as an insider researcher, it was easy for

me to hide behind my camera person identity. Even though people were surprised and curious when they saw me observing a camera person, -because of my familiarity to them- it was easier for them to focus on their tasks after I explained the situation. Both the participants and the other people around tended to forget my being a researcher and to accept me as their colleague in our mutual working area, in our Lifeworld.

Consequently, participant observations and post-observation interviews build a unity with in-depth interviews and serve me as verifying the data that was gathered from autoethnographic fieldwork. Because autoethnographic study and second part of ethnographic study are both concentrated on instantaneous embodied movement, interactions, thinking and making processes in the limited time of TV shows, they present similar data on embodiment processes of a camera operator. Of course, recording my voice consciously about my decisions, actions, comments, and feelings distinguishes itself from writing down others' mere actions and interactions. However, those actions and interactions are being completed by conducting post-observation interviews which bring camera people's decisions, comments, and feelings into light.

5.1.2.3 Analysis of Ethnography

Analysis of ethnographic study started with the transcriptions of twenty-two in-depth interviews and transcriptions of fourteen post-observation interviews. All these transcriptions and participant observation AEIOU sheets were uploaded to MaxQDA software to be coded and finally thematically analyzed. In ethnographic study, I preferred to analyze Part 1 (in-depth interviews) and Part 2 (participant observations and secondary interviews) together in the same document. Even though they focus on different aspects of camera operating process, they both investigate the nature of camera operating of my colleagues. In this regard, I examine the analysis of Part 1 and Part 2 of ethnographic study together.

Unlike autoethnographic study, I preferred to benefit from a software program during this analysis process of ethnographic data especially because of its huge amount which could not be treated in a word or excel document. Ethnographic interviews were constituted by almost forty-five hours of in-depth and approximately eight hours of post-observation interviews. When considered that nearly everything in the interviews was transcribed and analyzed, the total sum of the data and the workload that it produced can be estimated. I tackled high numbers of codes, subcodes and accordingly concepts and themes. Oliveira et al. (2013) indicate the difficulty of encoding process in terms of its demanding time, attention, and effort, which can cause the researcher to make mistakes or errors during the process. Thus, using a software which is dedicated to qualitative data analysis would help to reduce the errors and improve the rigor.

As mentioned above, the transcriptions of the interviews and the observation sheets were uploaded to the software of MaxQDA. Then, I continued with the first cycle of coding, which is followed with several cycles that refine and re-organize the codes and themes. Oliveira et al. (2013) describe this process as sequence of open coding, axial coding, and selective coding stages. According to the authors, in the stage of open coding, creating codes is important while the researcher also sorts the categories according to their properties. In the axial coding stage, the categories are developed and organized. In selective coding, the categories are refined through integrations, merging or separations. In this sense, this process is very close to Saldaña's (2009) two-cycled coding system without limiting it into specific numbers of recursions. The coding process in this ethnographic study was also not limited to strict numbers or procedures. After the initial coding, I repeatedly shuttled the texts and codes, and checked and refined the subcodes, codes and categories.

I should signify here that, before the coding cycles begin, I had my own baggage of codes and themes coming from autoethnographic study. According to Miles et al. (2014), this type of coding is deductive, in which the researcher starts with a preliminary list of codes coming from the fieldwork, theoretical framework, hypothesis or research questions. Linneberg & Korsgaard (2019) indicate, this

deductive approach is usually combined with an inductive approach which leads the researcher to generate the codes directly from the data. For example, my coding approach in autoethnographic study is closer to inductive coding even though it includes my preliminary opinions from the field studies and my own camera operating occupation. On the other hand, in the analysis of ethnographic study, some of my preliminary ideas were very apparently deducted through the codes that are derived from autoethnographic analysis. Therefore, ethnographic analysis is mostly a combination of deductive and inductive, which creates the generative process of going back and forth through the data. This process helped me to expand, refresh and renew my coding repertoire, which also leads to more detailed and structured themes. In addition, having a range of ready codes and themes provided me insight on the possible findings. Saldaña (2009) describes this process as exploratory coding, in which preliminary codes are assigned to the data before more specific coding process is occurred through refined coding systems. This is an emergent and creative process of investigation; the preliminary assignments can be developed during the process through coding cycles.

In this regard, in the beginning of my first cycle of coding, I had my own provisional and hypothetical codes. Although, I never made a written list of these codes, they affected the flow of the coding process. For example, next figure presents a quotation, to which three codes are assigned. The code of *'technical problem'* comes from autoethnographic study while the code of *'technical prep/control'* was also modified from the autoethnographic code of *'technical readiness'* and was examined under the code of *'pre-shooting'* which was also derived from autoethnography. The other code *'occupational responsibility/ concern*' is a new code that was generated in ethnographic analysis. So, the coding process in ethnographic study was obviously influenced by the previous autoethnographic study. Here, I wish to exemplify the evolution and development process of the codes that are assigned to this specific quotation. In the second cycle of coding, the codes of *'technical problem'* and *'technical prep/control'* stayed while the code of *'occupational responsibility/concern'* was replaced by '*failure of anticipation'* and *'too late'*.

Because in this quotation, the situation that is narrated is more about the problem and the camera person's disappointment instead of his responsibility; or it is more about the result, not the reasons. Therefore, during the further cycles in the thematic analysis, the codes that are assigned to the text fragments are open to change and develop, presenting that this process is vivid and progressive.

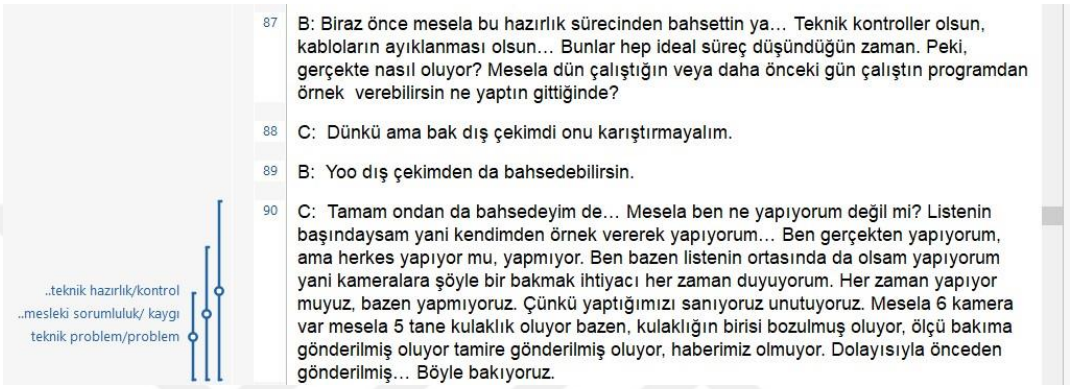


Figure 5.5 First cycle coding samples with provisional codes

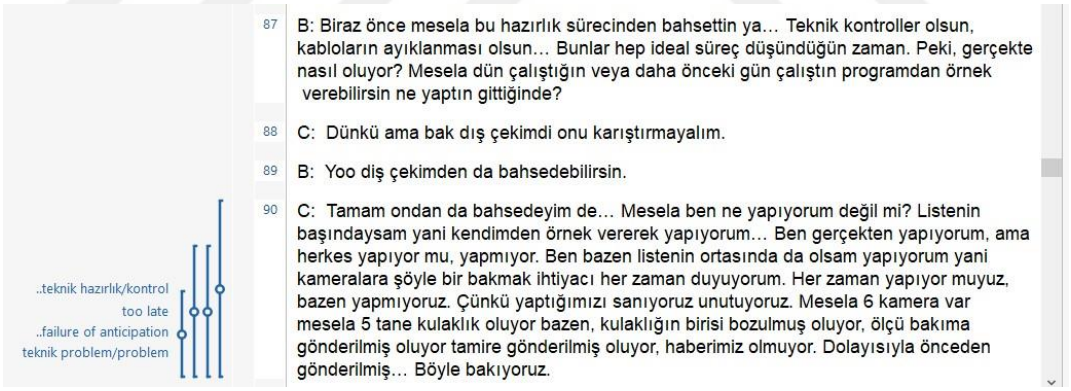


Figure 5.6 Second cycle coding sample

Moreover, a code can develop, expand, or weaken in terms of the numbers of its subcodes, or it can become a subcode of another code through the cycles of coding. For instance, following figure (Figure 5.7) shows how the code of *'composition/frame'* evolved during the coding process. In the end of the coding, the

number of codes increased when compared to the first cycle. This shows that coding process is a vivid journey, in which the researcher goes back and forth inside the data and lets it shape itself.

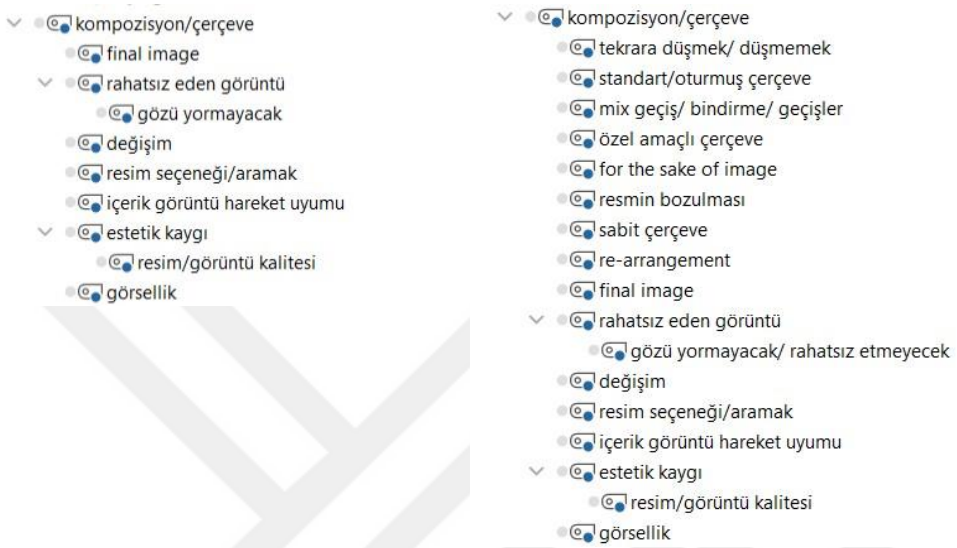


Figure 5.7 The evolution of code ‘composition/frame’

By going through several cycled coding process, I managed to categorize each code under important ones, which helped me to decrease the number of crucial codes while deciding the themes. Some of these important overarching codes repeated under different themes, which can be noticed on the following figure that exhibit the themes and codes of ethnographic study.

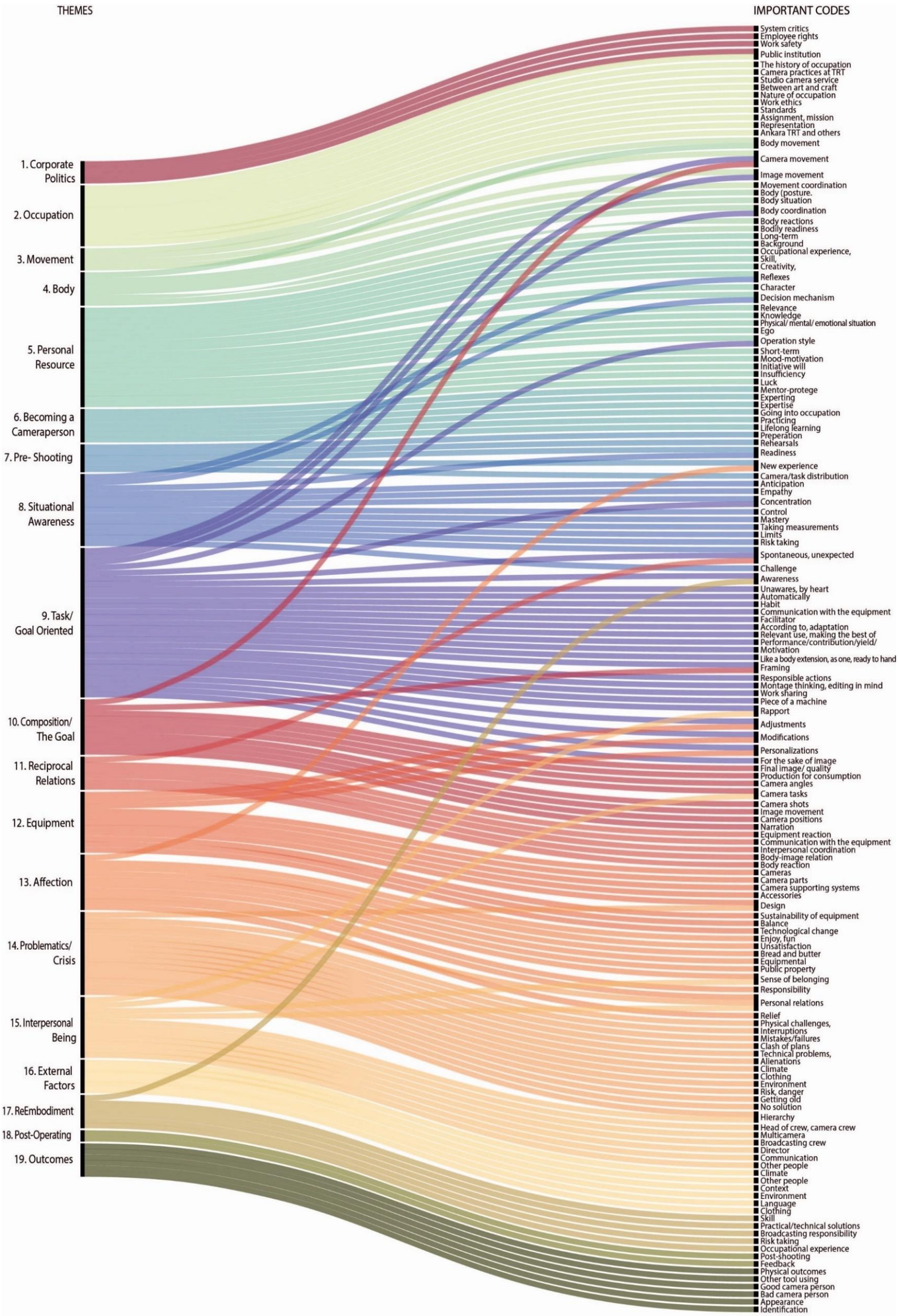


Figure 5.8 Themes and codes in ethnographic study (Data Visualisation: N. Cemelelioğlu)

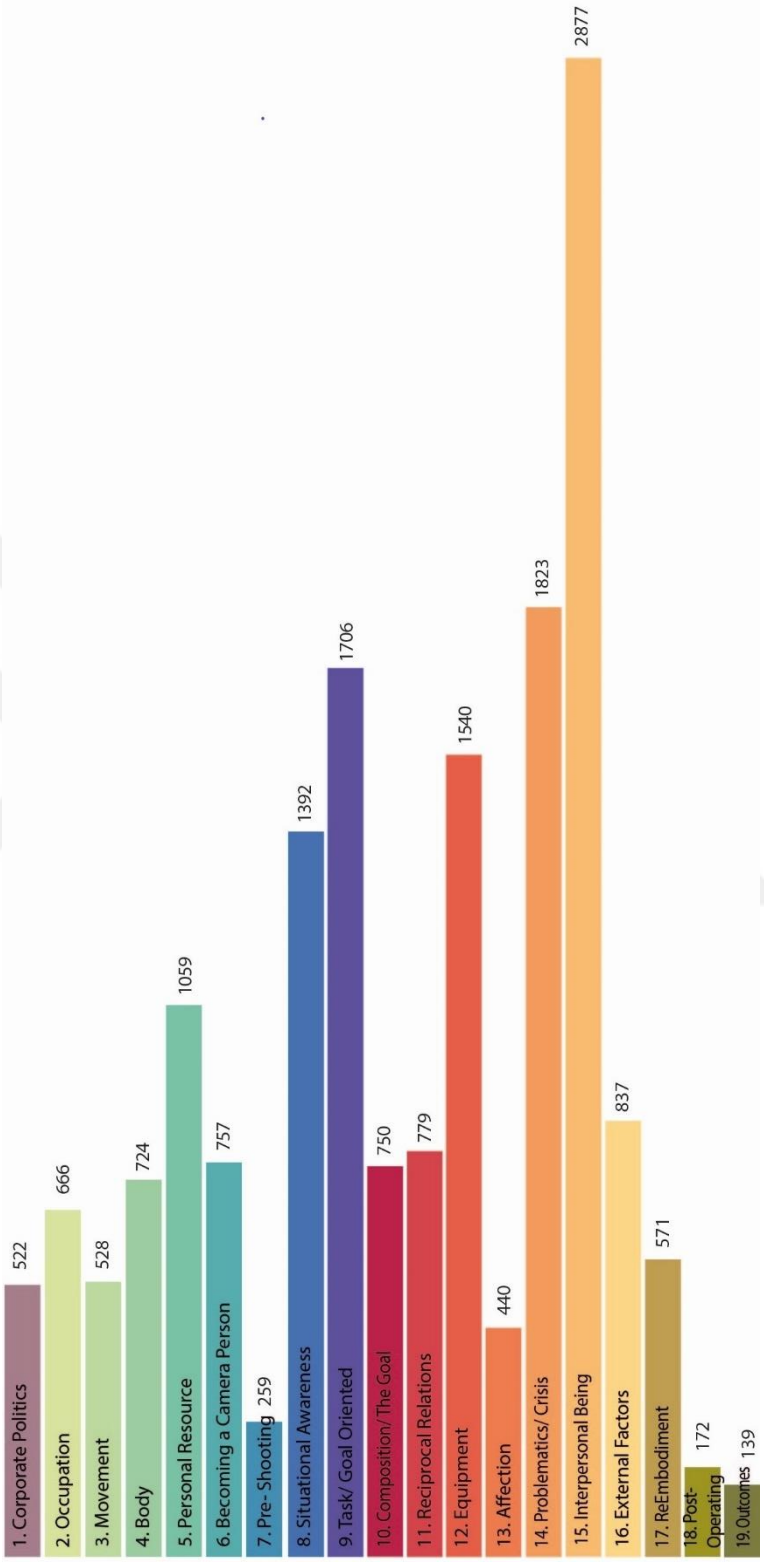


Figure 5.9 Number of coding in each ethnographic theme

As can be noticed from the figures above (Figure 5.8 and Figure 5.9), the analysis of the data coming from the ethnographic stage of the thesis generated nineteen themes, which are **corporate politics, occupation, movement, body, personal resource, becoming a camera person, pre-shooting, situational awareness, task/goal oriented, composition, reciprocal relations, equipment, affection, problematics/crisis, interpersonal being, external factors, re-embodiment, post-operating** and **outcomes**. Ethnographic study examines the camera operating practice in a very detailed way as involving nearly all aspects of the practice. Moreover, according to the participants, it seems that the task itself, the equipment used in the task, problems that break the task, the way of tackling these problems and the interpersonal relations are the most crucial aspects of the practice. This is because, the largest theme in terms of the quotations it includes is the **interpersonal being**, which is followed by **problematics/crisis, task/goal oriented, equipment,** and **situational awareness.**

5.2 Summary of The Chapter

This Methodology Chapter tries to give information on the methodological approach and research design of this thesis study. In this chapter, I also tried to present how the research design was conducted in the field, and how the data gathered from the field studies were analyzed.

In this regard, I started with the autoethnographic study, in which I examined my own camera operating process through recording my voice by trying to capture everything about my camera operating experience. I documented all aspects of my camera operating process inclusively. In this autoethnographic study, I was the complete researcher and participant at the same time, whose first-person perspective affects the development of the study. However, the study was not my mere narration, it was indeed a process of perceiving and interpreting my own experiences through the lens of theoretical framework. Thus, I committed to autoethnographic methodology, in which I both elevate my unique personal narrations and their

passing over towards a more general discussion on camera operating. With this autoethnographic understanding, after conducting the field study, I continued with transcriptions, coding, and analysis. Transcription was done word for word and coding was completed in two cycles. In the first cycle, I descriptively coded the data, while second cycle was more interpretative which let me go back and forth several times in order to finalize the categories and themes. Through this analysis process, autoethnography revealed my own camera operating practice and my embodiment moments through seven themes. I also benefited from this First Stage while deciding the research design of ethnography, such as interview questions and flow of observation. Besides, autoethnographic study provided preliminary codes and subcodes for ethnographic analysis.

After completing autoethnographic study, I conducted the ethnographic study in two parts. First part included in-depth interviews with twenty-two camera operators, who work as my colleagues at TRT in Ankara. Second part covered the participant observations of fourteen out of twenty-two camera people and the secondary interviews with these observed camera operators. During semi-structured in-depth interviews, I collected the camera operating narrations of operators. In-depth interviews helped me to understand and interpret the ways of other camera operators use the cameras and embody themselves in their Lifeworld. In this regard, I could also manage to understand the subculture of multicamera operating at TRT. Therefore, these interviews worked differently when compared to autoethnographic study. While autoethnographic study captured the instant live experiences of a camera operator, in-depth interviews focused on the general camera operating processes with all aspects and extensions. In-depth interviews elevate the study towards a generality of camera operating experience, occupation and culture. In-depth interviews play a complementary role for the autoethnographic study, which let me go beyond a single operator and place the uniqueness of my operating within a group of people. In addition to the in-depth interviews, ethnographic study also covered participant observations and secondary post-observation interviews. This part of the ethnographic study resembles the autoethnographic study in terms of the

spontaneity of the camera operating process. Because like autoethnographic study, participant observations captured the operator's momentary experiences. Here, the reasons and consequences of the actions were covered through post-observation interviews. Following the conduct of the ethnographic study, the transcriptions of in-depth and post-observation interviews and the observation sheets altogether transferred to MaxQDA software. With the help of this program, I could handle the big size of the data. Similar to autoethnographic coding, I applied two cycled coding process, which led me to identify nineteen themes.

Autoethnographic and ethnographic themes together opened a path for establishing the findings of this thesis, which will be explained in the following chapter.

CHAPTER 6

FINDINGS: CAMERA OPERATING PRACTICE FROM A PHENOMENOLOGICAL PERSPECTIVE

In this chapter, I will try to present the findings of autoethnographic and ethnographic studies. Here I wish to emphasize, even though Stage 1 and Stage 2 were conducted and analyzed separately, the findings that are scratched from those studies are examined together. Since phenomenological understanding offers the holistic perspective, this thesis holds holistic approach while presenting the findings in addition to its theoretical framework and methodological paths. Furthermore, presenting the findings separately would strain the flow of the thesis and the findings themselves. This is because, findings of the autoethnographic study which were given as themes and results in Chapter 5, construct the base of the ethnographic study in terms of the research design. Besides, the ethnographic themes are structured on the themes and results of autoethnographic study. Since ethnographic findings expand and deepen the findings of autoethnographic study, they are intermingled in terms of explaining the complexity of the camera operating practice. Therefore, presenting them together in this Chapter helps me to reveal all possible facets of the camera operating practice in the same framework. In this sense, the nature of camera operating practice can be given comprehensively as including both me and other camera people as participants of this thesis study. Here, I need to underline again, since I held first person perspective during the autoethnography and positioned myself as insider-researcher in ethnographic study, while presenting the Findings I am both the participant and the researcher. Therefore, readers of this thesis may encounter my own autoethnographic narrations during findings. I examine my own autoethnographic notes as data coming from a participant. In addition to my field notes, I also rely on my occupational experience as a camera operator while describing the occurring and the Lifeworld.

Before passing on to findings, I wish to start with the finalized themes that were collected from seven themes of autoethnographic study and nineteen themes of ethnographic study. These seven finalized themes were refined and distilled in terms of their coverage and their capacity of referring a specific aspect of camera operating practice. These themes were also studied together with the theoretical framework as showing their theoretical relations. In this regard, I tried to take the reciprocity between the field studies and theories into consideration. Here, these themes structure the basis for the rest of the findings, which will be given in detail in the following sections. Table 6.2 presents these themes with their theoretical connotations, as a brief of camera operating elements.

Table 6.1 The process of finalizing the themes

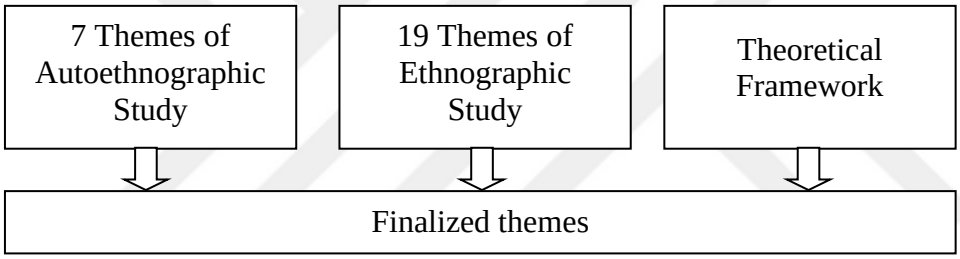


Table 6.2 Finalized Themes

FINALIZED THEMES	**TERMS FROM THEORETICAL FRAMEWORK**
1) Corporate Politics and Profession	Lifeworld- Intersubjectivity
2) The Camera Person	Skilled user- Expert user
3) The Lifeworld	Lifeworld-Intersubjectivity- Relationality
4) Awareness	Ready to hand- Present at hand- Skilled practice
5) Flow of Use	Embodied Practice
6) The Goal: Composition	Intentionality- Mediation- Relationality
7) Crisis, Interruptions and Re-embodiment	Technique of the body- Ready to hand- Present at hand

These themes above together with the theory, show the nature of camera operating and open the way towards the concept of embodiment as the focal point of this bodily experience. Here I wish to mention them briefly in terms of their major points and coverage. Nonetheless, I should emphasize that they are not the Findings of this thesis study, they act as transition between separately generated themes of both stages and the final findings. These themes represent the camera operating process from all aspects. The detailed information on these themes together with the citations from my field studies, which present the embodiment processes of camera operators can be followed in the next sections.

Corporate Politics and Profession refers the broad environment of the camera operating process. Field studies show that camera operating does not start and finish in the limited time and place of the bodily interaction between the camera person and the camera. Indeed, it dispersed in the sociocultural life of camera operator, in which the corporate -here TRT- and the profession of camera operating influence the positions and behaviors of camera operators. This theme will be covered broadly in the section 6.1, in which I will mention the embodiment process of camera operator in a system.

Camera Person theme focuses on the identification of camera operator herself. This theme is related to the skilled user and expert user terms of the theory of body techniques. In this sense, camera person becomes a skilled and expert user through a learning process. This theme also focuses on the short-term and long-term personal resources of the camera operator. These resources help and shape the way that the camera operator pursues camera operating process. Besides, the affections of camera person and her meaning making process are related to the theme of Camera Person. The section that will narrate the connection of skilled and expert practice and the notion of embodiment covers the theme of Camera Person in detail.

The following finalized theme is the ***Lifeworld*** which directly refers the concept of Lifeworld in phenomenology. In this theme, I focus on the close circle of environment that the camera operator establishes her interactions in. For example,

interpersonal networks, the shooting context around the camera operator and the equipment that the operator uses during the operating process are influencing factors in this Lifeworld. The operating process is shaped through this relationality between the operator and the Lifeworld. According to the field study, this theme is dispersed in different layers of embodiment as can be seen in following sections.

Next theme is ***Awareness*.** Both field studies show that awareness has an important place in camera operating process. Here, this term covers many aspects which are related to keeping and sustaining the embodiment though occupational experiences, expertise, or skillful reactions. Awareness is related to the object's beings as ready-to-hand and present-at-hand, and its swinging between them. Camera operator handles the presentness of the camera and other elements in the Lifeworld through awareness. In the findings, it will be seen that, awareness is there to build up, sustain and re-gain the embodiment.

Flow of Use is another filtered theme derived from the field studies. It promotes the task-oriented phenomena which include the total embodiment of camera operators. According to the field studies, camera operator pursues her actions towards the seamless flow of the operation. She bodily engages and organizes her movements, and accordingly the movements of the camera, for the sake of the goal. Through this process, the operator continues her spontaneous embodied practice while accepting the equipment as an extension of the body, but with an awareness of the task. She executes her actions for the sake of visual image with a rapport of the crew, the equipment, the environment, and herself. This theme is clearly related to the term of embodiment itself and investigates the exact moments of embodiment.

Flow of use occurs because of ***The Goal: The Composition.*** All practices of the camera person and the rest of the crew are towards to create a mutual output. Sometimes, the composition that the camera person creates may not be aired, which means that it may not be selected by the director and stay unused. Even in these situations, camera person tries to achieve something proper and ready to be aired on her monitor. Creating a composition on the monitor is related to the term of

intentionality in phenomenological account. Camera operator's mind and body are of and about the composition. Besides, as connected to the theory provided by post-phenomenology, the composition is arranged through a mediation that the technology of camera and other equipment provide.

The last finalized theme is ***Crisis, Interruptions and Re-embodiment.*** This theme focuses on the interruptions happening to the embodied practice because of various crisis and problems. The theme also covers the process of re-embodiment. Readiness-to-hand of the product is exposed to be interrupted because of breakdowns or alienations, which makes the object turn into present-at-hand. In these disembodied moments, camera operator looks for re-embodiment and gains it through sensorial connections. These themes will be discussed in detail in section 6.5.

Concerning the nature of camera operating, above, I presented seven themes to explain this practice. Since autoethnography, in-depth interviews, participant observations and post-observation interviews establish these themes, they include almost every aspect of camera operating. These themes and their reflections show us the general idea of camera operating in multicamera systems as they reveal the nature of camera operating practice from phenomenological approach and through camera operators' perspectives. In this regard, the nature of camera operating is constructed by the abovementioned seven themes which cover the practice broadly and inclusively.

Even though the nature of camera operating can be tackled in many ways, here, I will explain this nature trough the concept of embodiment. This is because, this thesis approaches the camera operating practice from the phenomenological approach and through camera operators' perspectives. Following the theoretical framework that is discussed in Chapter 2 in detail, embodiment is accepted by this thesis as the mode of being-in-the-world, which is the surface of interaction in this world and the heart of phenomenological understanding. Since phenomenology promotes the unity of human mind and body and the wholeness of human being and the Lifeworld, this

thesis also accepts that embodiment stays at the intersection of entanglements. As field studies show, the ways of embodiments, the process of embodiments and the layers of embodiments explain the nature of camera operating process through the camera operators' perspectives. Because, in this research project, camera operators are the centers of entangled relationships and interactions. Their becoming as being-in-the-worlds construct the way of their camera operating, the nature of their body technique and the subculture of their profession. Therefore, camera operating is basically and naturally embodied, which will be discussed and given in detail below as the findings of this thesis study.

6.1 Embodiment in the System

Lifeworld is our area of constant interactions and experiences. According to Ingold (2000), Lifeworld creates an enclosing structure around us which does not let us escape. Therefore, Lifeworld is a phenomenon that cannot be considered without the practices, the interactions between these practices, and the interpretations of them. So, Lifeworld integrates the intentional actions of social and cultural practices (Zelić, 2008).

As the field studies exhibit, camera operating process in multicamera system happens at the intersection of many parameters of the Lifeworld. First, camera operator works as embedded in an occupational context, which wraps her up with a culture of belonging a system. Here, TRT as the corporation plays a crucial role on camera operator's embodiment process. Besides, carrying out the camera operating as a profession also brings other responsibilities and practices to camera operators. Additionally, environmental issues directly influence the camera operating process and operator's embodiment. The operator arranges herself according to the context of the program and the environment. Besides this occupational context, camera person also embodies herself in an interpersonal network. She has to work within a camera crew and additionally among a broadcasting crew. Altogether, a shooting can be executed and a visual image on our television screens can be produced.

In this regard, camera operating practice locates the camera operator within these entangled interactions and relationships of interpersonal network and context. So, here I will examine the experiences and embodiment processes of camera operator within this multilayered Lifeworld.

6.1.1 The Corporate Context

As a camera operator at TRT, I can state that, the corporation that we work in and the profession that it assigns to camera people significantly affect the process that we pursue as camera operators. Here, field studies present that this influence is multilayered. Not only the corporate or profession themselves are effective on camera people's operating the camera, but also their expansions towards critics of the systems, office politics, work safety, work ethics or the multicamera system itself have influence on the process of camera operating.

In this sense, camera operating is not something limited to using the camera in a limited time and space which is specified to a TV program. Here, the Lifeworld of a camera person goes beyond the first-level interactions and disperses among other systems that a camera operator relates constantly. The corporate of TRT and the profession of camerawork establish the sociocultural and sociopolitical Lifeworld of the camera person. This Lifeworld creates a reference point for the practices of camera operator as she pursues her task. According to the field studies, there are important elements related to this sociocultural and sociopolitical Lifeworld of TRT community. For example, *system critics, employee rights, works safety, office politics* and *public institute identity of TRT* are main issues that construct the corporate politics of TRT as interfering the work of camera person. In addition, *history of the occupation, other camera practices at TRT, multicamera system operations, operator's definitions and standards of the operation, work ethics*, and *the responsibilities and duties* that camera people undertake, explain the occupation itself and its effect on how camera people behave and position themselves during camera operating processes.

For example, participants in ethnographic study mostly mention the situation of TRT as a public institution which makes public broadcasting. This affects many issues that a camera operator faces including the limitations on the TV shows or the visuals that she is supposed to produce. The operator knows what to cover in the composition in order not to cause any problems for the corporation. She takes this knowledge as a reference point and organizes her interactions accordingly. She embodies herself in the occupational context with this knowledge of limitations and maintains this embodiment by keeping herself within the limits. Working in a public institution also causes corporate politics that affect the circumstances on the shooting context. For example, a participant mentions the bureaucracy which is created because of the public institutional nature of TRT. In this regard, things proceed slower as consistent with the rigid system of TRT when compared to private sector. For instance, if a problem occurs with the equipment, the repair or renewal process needs a bureaucratic procedure, which influences the camera operator in her working context and makes her organize herself according to this reality. Here, instead of assigning a problem solver role to the camera person, TRT as a public institution puts the camera operator in a member situation whose actions are restricted to her task descriptions and responsibilities.

Furthermore, this corporate politics has also expansions towards buying new equipment for camera operating. Here -public or not- institutional identity of TRT come foreground with a similar effect of the abovementioned situation. As a member of an institution, camera operator who is the user of the equipment is not responsible and authorized to buy the equipment as customer. The operator is supposed to use a camera which has been chosen and bought by someone else. This situation sometimes creates inconvenience during the camera operating processes:

> For example, they buy pedestal or monitors without asking to camera people. At TRT, they conduct procurement law. That's why we cannot say anything (…) For example, when first high technology HD cameras arrived at TRT, they brought black and white tubed viewfinders on them. We could not see anything through them, and they were also very small. Then, one of our senior camera person colleagues talked with the managers (…) In the end, they bought better

> viewfinders. Thus, we worked comfortably (Participant 1, In-depth Interviews). [1]

Here, the camera operator takes an action which elevates her towards a more interfering role from a mere membership. So, the occupation context and the institutional attempts may create problems in the embodiment process of the operator, which may be overcome through the voluntary actions of the operator.

The immersion of the camera operator in her occupational context is also reinforced by secure working environment. The issue of work safety was mentioned frequently in the interviews, which presents its importance on shaping the way of camerawork. Work safety is surely related to various factors; however, its main concern is tangled in corporate politics. This is because, TRT is the responsible actor for providing and sustaining the safe environment for the shootings to take place. In case of unsafe situations, camera operator inevitably tackles the environments and circumstances and looks for the security. This safety is either for herself or for the other people around. For example, in his interview, Participant 2 mentions a dangerous incident happened to him in a shooting environment. As a jimmy jib operator, he needed to carry the jib arm in a sloping land, even he informed the director about the danger that it might cause. Consequently, the jib arm toppled over the camera person and his hand was crushed under the joystick. His three fingers were injured, and tendons ruptured. He narrates the rest of the story by elevating the importance of work safety and its application. According to him, this kind of situations should not be left to the personal interactions and relationships among the crew, or the performance should not be executed according to circumstances; there should be regulations on them. Here, it is clear that, camera operating is not limited to the ideas, decisions or actions of the camera person herself. She continues her working practices and patterns in accordance with the decisions and actions of a bigger and larger system.

Another example about this being in a larger world was also raised by a participant who criticizes the planning of shootings in studios. According to Participant 9, especially in recorded programs, the shooting may take very long hours which

consumes the energy of the camera people. For example, they have to wait the rehearsals of orchestra which may postpone the start of the shooting. Thus, the camera person becomes exhausted even before the shooting starts. Planning of the shootings is an important issue that affects both the camerawork and the experience of the camera person in the system.

> (…) Then, what do you do? If I give example from my experiences. The singer comes late, the rehearsals are done late. Then, you start the shooting late. You have waited for hours and the time that you are supposed to be most productive was wasted. You reduce gradually your energy, and when you start shooting, your eagerness and energy have gone. Thus, this planning is very important. We still cannot manage this planning. This may be caused by out of camera department, by the singers, or maybe by us. We stop and start again shooting. In fine, you operate something electronics. You need to be planned. The shootings should not take too long. You use the public resource. It's a waste, it's pity (Participant 9, In-depth interviews). [2]

Briefly, camera operator finds herself as a member of a community, in which her decisions and actions are affected through multilayered interactions. Here the community is TRT and camera operating subculture for the camera person. Camera operator as sharing the institutional values with other TRT employees and creating the shared context of community at TRT, establishes a membership in the corporate.

Besides embodied as a member of a community in the corporate, a camera operator pursues her practice among in an interpersonal network, in which she performs her actions and interactions as a part of intersubjective world.

6.1.2 The Interpersonal Being

As discussed in Chapter 2, phenomenological account offers the intersubjectivity in the experiences happening in the Lifeworld. Schutz & Luckmann (1973) elevate the understanding of the Lifeworld towards a social context. As sociologists, the authors mainly focus on the social relations that humans create with other humans. Thus, the everyday Lifeworld is not limited to the natural world, but also the 'social' is

experienced. Schutz (1932/1967) states that the people that we encounter are not only other subjects that we experience, but they are also our concerns of thought. In this sense, from phenomenological perspective, their beings establish our intentionality in this Lifeworld. Therefore, Schutz continues, my intentionality belongs to the other one's spatio-temporality, while her intentionality belongs to my being 'here and now'.

In accordance with this situation, a camera operator organizes herself among other selves in the intersubjectivity and intersubjective intentionality. These other selves may be other camera people or other broadcasting crew, because a TV production cannot be produced by a single camera operator, it needs a group of people who have different tasks and responsibilities. Indeed, multicamera system itself naturally needs more than one camera person during the shootings. The nature of the work requires different angles of the subject simultaneously. In this concurrent repertoire of visuals, the director chooses one of them to be aired on television. Therefore, -as the field studies present- the nature of multicamera system locates the camera person in an entanglement of interpersonal relations including *hierarchy*, *communication*, *collaboration, coordination,* and *rapport*.

Interactions among the Camera Crew

In her interactions, camera operator works in a hierarchical system in which either she receives orders from director, or her camera operating process depends on the head of the camera crew who distributes the camera tasks to the camera people. This hierarchical space affects the camera operating process and the embodiment of camera operator. For example, the following quotation from my autoethnographic field study shows the task distribution and adopted responsibilities through the hierarchical positioning in camera crew. Here, I wish to give an example from my own experiences, because the section of 'interpersonal being' roots from autoethnographic study and has developed through the rest of the fieldwork.

> (…) I checked the intercom and the camera locks. There is an acceptance that this is my duty because my name is at the bottom of the camera list. Indeed,

> there is no written regulation about it, but it has worked so far (Researcher, Autoethnographic notes). [3]

In this sense, as the junior camera operator, I felt myself responsible to pursue the technical check and make the cameras ready for shooting. This hierarchy may be also seen during the camera and task distribution. Field studies show that, most of the time, the head of the camera crew distributes and assigns the camera tasks to the camera people. Thus, a camera person starts shooting the program by using a camera that is assigned to her with or without her wish. This situation puts the camera operator in a limited position while pursuing the camera operating process. Embodiment of the camera operator is not something reserved to her own decisions, it even starts with the decision of other self. Sometimes, camera person may reject or negotiate the decision of the head of the crew, which directs the situation to different positions such as enforcements, compromising or administrations. In each case, camera person feels the hierarchical positions of herself and the head of the crew and arranges her decisions and actions according to this knowledge.

However, head of the camera crew has more responsibilities and is targeted to many expectations apart from task and camera distribution. For example, she is expected to control the crew, protect the crew, organize the crew, know the crew members in terms of their abilities, capacities and current states, represent the crew, and create a harmony in the crew. In addition to these expectations, a camera person may ask for the dialog from the head of the camera crew and expects her to direct the group for a collective performance. However, sometimes, head of the camera crew may be exposed to some criticism because of her insufficiency, her arrogance, or her favoritism. In these situations, such as rejection of task distribution, camera person objects to the head person's decisions and actions. Thus, camera operator positions herself according to this relation, which is one single example of countless relations that a camera person lives through during the camera operating process.

In the camera crew, the operator is also affected by other camera people as she goes through a reciprocal influencing continuum. For example, camera crew needs to

work in collaboration, coordination, and rapport to create the intended visual image. This image can be any image on each camera monitor, or the visual image that is aired on TV. In this regard, camera person is aware of what other crew members are doing and benefits from these data when she takes decisions and actions. Camera operator organizes her behaviors and actions in a collaborative way of working. For example, the citation below shows how this collaboration turns into rapport in the crew to create a seamless camera operating process:

> (…) I arranged my position according to the spot that the jib arm descends, because I knew that jib operator needed to use the monitor (on the stage). In order to let him use that monitor, I needed to give room. Thus, I positioned myself one meter right when compared to our usual positioning (Participant 3, Post-observation interviews). [4]

Among camera crew, getting along with the members, the dialog among the crew members, the support between the camera persons and working with the same people create a synergy and harmony among the crew. This harmony makes the camera person work in a familiar environment with an embeddedness into the task and context and embodiment in the system. In the multicamera system, this embodiment is towards the outcome, the visual image: the picture. As discussed earlier, phenomenological mind is always of or about something, because it is intentional. In this regard, the rapport among the camera crew creates the collaborative embodiment of the camera people, which intentionally and mutually produce the series of images:

> We even look at each other's monitors. I look at your monitor for example and see that you have a close-up on your monitor. I also shoot on close-up and the director sleeps. We say "director sleeps" (when she is unaware of the images). In these situations, I discreetly zoom out to long shot. We do this without talking. Or you can do the same. Or, on the contrary, when I understand if other camera people shoot on the long shot, I try for the close-ups. Or I make you to get a close-up by making a sign, I can make a sign for you to move with the camera and shoot the object from a closer position (Participant 21, In-depth interviews). [5]

The quotation above shows the collaborative working among camera crew in terms of the compositions. Here, the participant underlines the production of visual images towards the edited understanding. Because, in a multicamera system -as explained above- camera people have different tasks while shooting the subject. Each camera shoots the subject from a different angle while showing a different aspect. This is significant for the editing, because the sequential shots which are coming one after another are required to be differentiated in terms of shooting plans in order not to disturb the audience. Here, the participant emphasizes that camera operators do this editing in their minds and alter their compositions initiatively and without talking. This silent communication is interesting. Camera operator in the same crew automatically leads the other one to produce the best picture for the sake of the TV show and knows how to adapt her own image by heart. This process is reinforced by the *return* button on the cameras. Camera operator can see which camera is selected and what frame is aired through the return button.

This silent communication is towards the collaboratively production of the program. Interestingly, sometimes camera people in camera crew follow the task in a rivalry in terms of making their pictures to be selected by the director, which also makes them motivated, keep their awareness high, and feel as if they were in a game:

> I don't know if you ever attended swimming races. I did. In swimming races, and also in athletics, they say, it is important to have a rival that pushes you, that makes you run, that makes you compete. This is same in camera operating. If you coordinate with your colleagues, you say 'wow, she gives great pictures, I should do as well'… If you work in this rapport, the work itself becomes great (Participant 12, In-depth interviews). [6]

Here, the reason of this rivalry is the task. Camera operator makes her best to continue the task as keeping her immersion in it. This process happens recursively in multicamera systems. Once a picture is selected by the director and then broadcasted, another search for pictures starts as camera operators again make effort for making their pictures selected.

Therefore, interpersonal embodiment is also related to the picture and the camera that produces the picture. Even though these relations happening around the product and the picture will be discussed in next sections, I wished to mention that the embodiment of the camera operator is not something restricted to limited situations such as interpersonal relations. Embodiment as the being-in-the-world of the camera operator happens through an entanglement process of all relations.

Interactions with the Director

Returning to the embodied camera person in the system and interpersonal network, I mentioned the cooperation among camera crew through keeping the editing in their minds to produce a collective visual image to be broadcasted. As seen in the quotation 5 above, the director is inevitably responsible for taking this editing in mind. The initiative of the camera operator presented in the quotation, is a way towards the camera operator's embodiment process while showing her relations to the director. At TRT, and possibly in many other broadcasting corporations and organizations, the director is the final responsible for the visual images. She is the one who directs the whole crew to capture and create the images towards her visual wishes. In this regard, she is at the position of giving orders to camera operators in terms of visual compositions and camera movements. Here, the phenomenon of hierarchy also comes forefront in-between camera operator and the director. However, this hierarchical relation is also exposed to alterations according to the personal relations between these two parties. In most of the cases, with or without the compromise with the director, camera person takes initiative and organizes the composition according to her own preferences. These phenomena of director's orders and camera person's initiative also take an important place in the field studies. For example, the conflict between the director's order and camera person's initiative was raised several times during the autoethnography and ethnography together. The quotation below presents this conflict and the challenge that the operator faces:

> (…) you have a plan in your mind. You plan how to start the camera movement, how to end it. However, at the middle of the movement, the director

> gives an order of something else. But, if you change the camera movement towards her wish, everything changes (Participant 5, In-depth interviews). [7]

Another participant continues this issue and explains that he does not listen the director in these kinds of situations. For example, "… the director asks for long shot, however there is something on the stage that she does not want to see. In this case, it is not possible to get the long shot" (Participant 14, Post-observation interviews) [8]. Because, technically, if long shot is achieved, whole stage is supposed to be covered in the frame. According to the camera operator, this is a situation that shows the professional inability of the director.

In the field studies, the interaction between camera operator and the director mentioned frequently. Among other broadcasting crew, director becomes the most prominent other self for the whole camera group. This comes especially because of the -theoretically- hierarchical position of the director. The analysis of the data mainly concentrates on the positive and negative experiences that participants narrate about the directors. In this sense, the positive experiences come from the cooperation and rapport created between two parties such as building dialogues, sharing the authority, and knowing the personalities, while negative experiences happen because of the problematics occurring in these interactions. For example, the participants raise the issues of miscommunication with the directors, unreadiness, failure, insufficiency and incapacity of the directors, the interference of the directors into the camera crew, and the problematic personality of the directors. At the center of these parameters, during a camera operating process, a camera person establishes a relationship with the director towards a mutual production of compositions and broadcasted images. In this regard, this relationship affects the embodiment process of the camera operator as she understands and perceives herself in this particular interaction while trying to keep it smooth, fluent, and uninterrupted by problems. In this sense, the other self of the director is perceived and understood through the experiences of the camera person, and this intersubjectivity makes camera person construct an understanding of collective experience.

Other Broadcasting Crew

In these continuous interactions, camera operator does not only perceive the other camera persons or the director as the other selves. Everybody in the broadcasting crew found interactions -strong or not- with camera operator. These interactions, like other interpersonal relations, are constructed towards the mutual goal of broadcasted image. As mentioned in detail in Chapter 4 while explaining the people related to camera operating process, many task holders in a broadcasting crew have influence on the camera operating experience of camera people. These influences shape the way that the camera operator pursues her camera operating practice. The operator positions herself, makes decisions and takes actions according to these interactions. Considering these influences, participants in the ethnographic study mainly mention the nature of TV production and their roles as a part of a machine or a ring of a chain. Even though some participants locate camera department in a more significant place than other tasks, they basically underline the multidimensional nature of broadcasting. For example, the nature of multicamera systems inherently defines the camera operating process related to the camera control unit. Because in this system some settings of the camera are assigned to camera control unit, which has a direct access to and control on the camera while the operator is using the product. Therefore, the camera at the hands of the operator is actually a surface of a shared authority. As a participant propounds “for example, wrong iris selection or wrong white balance affects directly your viewfinder, your picture” (Participant 2, In-depth interviews) [9]. In Participant 19’s words (In-depth interviews) [10], “if CCU adjusts the iris at F2 while it requires F22 in the strong daylight, it creates a crisis for the camera operator”. Because for the camera operator, keeping the subject focused is easier with high F stops -closed iris-. Thus, apparently the actions of CCU directly affect the way of the camera operator using the camera and producing the image. If camera operator feels comfortable while executing her task, she becomes more sensorially connected to the camera and visual image, which elevates her to an embodied being-in-the-world. This presents the entangled relations of camera

operating. A relationship between two subjects in the Lifeworld affects another relation of the subject to a phenomenon.

In addition to CCU, as field study shows, a camera operator is influenced by other subjects of whole broadcasting crew which includes assistant director, assistant producer, producer, vision mixer, lighting crew, floor manager, video tape recorder or EVS operator, grapher, technical director, technician, sound technician, speaker, and presenter. In addition to these members of broadcasting crew, camera operator also interacts with the other people who are positioned on the stage such as orchestra members in a music-entertainment show or an academic guest in a news program.

Moreover, camera operator may find herself in a position that to interact with the people who do not have any role in the production of a TV show such as spectators in a sport game or a concert. The relations to these people will be discussed under the next section of occupational environment together with the other elements of shooting contexts.

To sum up the intersubjective interactions of camera operator, the relations with the camera crew and the relations with other broadcasting crew including the director become prominent. Camera operator perceives everyone around him as another self in the Lifeworld and interacts as aiming a better immersion in this intersubjectivity.

Next to the intersubjectivity, camera operator is also embodied in the materiality of the Lifeworld. She finds herself as embedded and situated in the occupational environment, in which she is inevitably tied to the shooting context. Next section will discuss the camera operator's embodiment in these contexts.

6.1.3 The Occupational Environment

As Ingold (2000) indicates, human being is not limited to the social interactions in the environments. As biological beings, humans relate to other components of natural environment. Here, the natural environment is considered as the materiality of the world. Ingold (2000) accepts our interactions in this natural environment are

in a reciprocal relationality, as mentioning the transformative effect of human on the environment and the environment on the human. The knowledge of the practitioner occurs in relation to other elements in the environment, in which the body becomes a part of the total. In this relationality, the body is not only embodied in the environment, but it is also shaped by the environment. Accordingly, camera operator is affected by the shooting environment while pursuing her camera use, while simultaneously influence and transform the context.

Here, the term of occupational environment includes the materiality of the Lifeworld as a whole. Even tough, cameras, camera supporting systems and camera accessories are part of this materiality, I will touch them in detail in the next section while discussing the embodiment process with the 'equipment'. Therefore, here, the occupational environment will mostly mention the rest of the *materiality as the location of shooting* and *the context of TV program* together with their physical aspects and thematic concerns. Thus, this section can be accepted as supplementary for the Environment section in Chapter 4. While that section is more descriptive on the possible parameters of occupational environment, here I will try to mention mainly on the embodiment stories of participants.

According to the field studies, the context of the TV program is significantly determinant on the camera use patterns of the camera person. Even though autoethnographic study covers only news and talk shows, ethnographic observations include music and entertainment programs as well as sports events. In addition, in in-depth interviews, participants mention their experiences in other program types. Each of these contexts has its own standards and nature of camera operating process. A camera operator in a soccer game performs quicker and much more concentrated when compared to a talk show. Bodily posture of the camera person also differs in each context. The way she operates the product and the way she pursues her interactions also change. For example, a participant mentions the standard of camera tasks in football match, which makes the operator informed on her responsibilities in that specific spatio-temporality:

> For example, when we work in a football match, each camera has its own task there. Pilot (default) camera never works with close-ups, it shows the general view of the event. On the other hand, close-up cameras (next to pilot cam or behind the post) show the actors in the story. If a fault happens, one camera shows the player who makes the fault, and other camera shows the player who falls down. If the operators do not jobshare beforehand, during the live shooting, it creates a chaos. This is the task distribution (…) (Participant 3, In-depth Interviews). [11]

Participant 12 in in-depth interviews emphasizes that being a man of duty is much more prominent in a sports game when compared to a talk show or a music program. He underlines the task of offside camera by indicating that the principal duty of that camera is covering offside positions. Thus, whatever happens in the match, the camera person should stick on her task unless the director asks anything else. Otherwise, she can miss a very important offside position. Therefore, her embodiment is towards the completion of her task without any faults. She knows about the context and the theme of the program, the standards of the compositions, the requirements of the camera use, and the expectations from her. She is embedded with a contextual knowledge and situatedness.

Music-entertainment programs require different bodily experiences and use patterns. Camera people have various composition alternatives in music programs concerning orchestra, spectators, and the solo singers. The body of the camera person also works differently. For example, in the following quotation, jib arm operator is aware of her being in the context of a concert and through this awareness her body adapts herself in the environment for the requirement of this dynamic program:

> The effect on our body (…) my body makes the most effort in music programs, concerts, and festivals. It depends on the context of the program. In a rock concert or in a fast piece of music, the jib arm moves very fast to be in rapport with rhythm of the music. Then, our bodily movement, crossing leg movements, and the body swinging should be coordinated with it. Because, you move the camera very fast and your bodily movements should move quickly to be in rapport with the camera (Participant 9, Post-Observation Interviews). [12]

Unlike matches or music programs, talk shows are relatively slow and static. Therefore, a talk show does not require a movement series in terms of camera and bodily movements. Even in some cases, camera person may operate the camera while sitting on a chair as she makes small compositional adjustments without applying radical camera movements. These type of program contexts are called as static programs by the participants. Camera operators are aware of the requirements of the program in terms of compositions and movements, they know what type of frames are needed and to what extent they follow their initiatives or creativities. In this sense, the static nature of the program can be counted as limitations on the freedom of camera operators.

Dynamic or static, camera operator makes her organizations according to her goals. As she finds a way between her body and camera movements, she coordinates this interaction with her knowledge. For instance, Participant 21 mentions his preferences on camera adjustments according to the dynamism of the program context. If the program needs quick camera movements to capture the image, he prefers to adjust the pan friction a bit looser to pursue the movement effectively. However, loose frictions create problems in static programs because it becomes difficult to control in smooth panning.

In addition to the context of the program, physical environment of the shooting such as studios or locations determine the process of embodiment of the camera operators. According to the field studies, in addition to the materiality of the environment, the needs in the locations, the possible risks in the environment, the loud noise in the shooting area, the crowdedness in the place, and the physical properties and limitations of the shooting location are significant for camera operators in the pursuit of their embodiment. Besides, since the selection of the equipment can be differentiated according to the context and the physical environment of the program, the direct interaction between the operator and the equipment is affected by the environment. Apparently, in camera operating practice, actants in the process work in complexity as dispersed in various layers of the interactions and embodiment. An

element that seems to influence an embodiment layer of the camera person may also have an indirect effect on establishing another layer of embodiment.

If we return to the subject of occupational environment, camera operators may encounter dangerous shooting locations. For example, a camera operator was supposed to use the jib arm next to a cliff, while another participant mentions his experience of camera operating on a lift bucket of a crane machine. In addition to the dangerous natures of the locations, sometimes the theme of the program can cause risk for the camera operators. For example, in a music-entertainment program, while the music was continuing, a bucket of apples and oranges were spread on the floor as causing danger for the Steadicam operator. The operator narrates that moment:

> (…) Because of the format of the program, they spread apples and oranges. I told the director -through intercom- that I would not be able to work in these circumstances. I took this initiative because the location circumstances were not suitable for operating, there were obstacles everywhere on the floor (…) (Participant 15, In-depth Interviews). [13]

This situation occurred through an unanticipation, which caused a problem in the embodiment process of the operator. However, normally camera operators check the shooting locations beforehand in order to be ready for the possible risks and to adapt themselves accordingly. For example:

> Before the shooting starts, we check the cables if they are stuck on the floor or not. Or if anything else would hinder our passage, we take action. We change anything that would possibly challenge the camera, such as accessories or a piece of set (Participant 5, Post-observation Interviews). [14]

The adaptation of the camera people in the physical environment also covers the climate and accordingly their arrangements while taking the weather conditions into account. Weather conditions are determinate just on location shootings because studios are controllable areas that the temperature can be set by technical staff. On the other hand, on-location shootings can bring possibilities of very warm or cold

weather together with rain, snow, wind, or mist. An operator mentions the effect of cold weather on camera operating:

> We were shooting winter Olympics in Erzurum. There was a strong winter. We needed to shoot an announcement of the reporter with a single camera. I arranged the composition and started to wait for news connection. I could not see the reporter or the monitor because of the snowstorm. It was terribly cold, and I was shaking. There was no way for me to hold the camera handles. If I touched them, they would shake as well. I have no idea what happened. How they connected to us, how they saw the reporter, what picture they got (Participant 17, In-depth Interviews). [15]

Another camera person who operates jib arm mentions the influence of windy weathers on camera use:

> (…) because it was very windy. Normally I was supposed to move left but the wind was very strong as moving me to right even though I was applying too much force to resist it. Thus, you need to consider this environmental factor. You think spontaneous. The jib arm is loaded with heavy pieces and if something happens without your control, you cannot think the damage it can cause. It can fall over people (Participant 14, In-depth Interviews). [16]

Both quotations above present that weather conditions change the way of camera operating. Camera people need to deal with problematic conditions in order to keep their camera operating acceptable in terms of broadcasting standards. Connected to the weather conditions, clothing is effective on camera operators' practice. A participant mentions the long hours of shooting without sitting down and its connection with choosing comfortable clothes and footwear. Another participant mentions the specific outdoor clothes which help the camera people to stay warm during the shootings in cold weather. These are small elements that make the camera operating flow smoothly for the camera operator. In this sense, the performance of the camera person and her embeddedness in the task to receive her intended image are at the heart of various parameters even just the environmental factors are considered.

In brief, the embodiment process of camera operator in the occupational environment is dependent to the context of the TV program, the theme and pace of the program, and the locational circumstances in which the program is shot. Among these various connections and with her situatedness in the environment, the operator finds her way to continue her task smoothly.

To conclude, in a broader sense, camera operator as in the corporation and the occupational environment and within the interpersonal network embodies herself in this system. At the very heart of the interactions happening in the system, the camera person wishes to understand the other one as creating the meaning through her interactions in the Lifeworld and to embed herself in that Lifeworld together with all interactions there. Each character in the story has her own perception and experiences which create her own subjectivity. Thus, Lifeworld offers an area of intersubjective interactions between camera operator and others, which is both related to the fact that objects in that world are experienced uniquely by each character and each person constructs the other one as her own modificated one.

These interactions are various and countless. They create the basis for the layers of embodiment of the camera operator in the materiality and the intersubjectivity of the Lifeworld. In this section, I tried to give this intersubjectivity and collective intentionality through the embodiment of the camera operator in the corporate and among interpersonal relations. In addition, the materiality was held through the environmental aspect of the Lifeworld. However, it covers more than the locational and contextual concerns as dispersed among the artifacts that the operator directly interacts with. Next section will focus on this issue as trying to explain the embodiment process of camera operator through the interaction with the cameras, camera supporting systems, and camera accessories.

6.2 Embodiment with the Equipment

As discussed in the previous section, materiality of the Lifeworld also includes the artifacts. Camera operator with her mind and body directs her intentionality to the things in the Lifeworld as the nature of her being-in-the-world. In this sense, she is entangled with the world of broadcasting, in which she mainly interacts and embodies herself with the camera. Here, in this section, I examine the term of artifact as camera, camera supporting systems, and camera accessories. Sometimes, the term of 'camera' may refer the rest of the related notions.

According to the field studies, firstly, I examine the product -the camera- within the materiality of the Lifeworld. The camera is at disposal of the camera person with its hardware and software. In addition, camera parts such as monitor or lens, camera supporting systems such as tripod, pedestal or jib arm, camera accessories such as headphone or zoom/focus handles are all camera related artifacts. The design, modifications, adjustments, sustainability, and technological change of these artifacts should be covered while discussing the materiality of the product -the camera as the equipment. Secondly, the relationality of the camera and human body is another significant issue that is raised in field studies. The communication with the equipment, the reactions of both parties and the transformation roles of them become prominent when we speak about the embodiment process of the camera person with the equipment.

As it can be concluded from the previous section that focuses on the embodiment process of the camera operator in the system, embodying with the equipment cannot be totally distinguished from other layers of embodiment. In this regard, although I will concentrate on direct interaction with the camera in this section, this interaction is strongly connected to other interactions that may be touched throughout the text.

6.2.1 The Equipment Itself

As discussed in the theoretical background chapter (Chapter 2), Dreyfus (1991) indicates the hermeneutic aspect of Heidegger's phenomenology, in which the philosopher interprets the human-artifact relation through the potentiality of the object that it presents itself to the subject. In this regard, the object's being covers the potentials of alteration, which leads the interaction between object and subject towards changes according to these potentials at any given specific time. Dreyfus (1991) indicates, the phenomenological object can be made to show its potentials instead of directly imposing it. Therefore, when a camera person encounters with an object -here camera, camera accessories and supporting systems-, she discovers the ways of these equipment's being-in-the-world and the ways of the relationship that the objects present to her.

Field studies show that during the interaction with the camera, camera operator finds the way of the products' way of their self-expression according to their spatio-temporality. For example, camera operator knows the function of jib arm, how it finds its being-in-the-world as a camera supporting system, and how it presents this situation to the camera operator. During the interviews, participants emphasize the mobility of the jib arm in shootings. According to them, jib arm helps the camera people to receive many images from different positions of the space such as very high or low angles, which creates a freedom for the operator and the director while producing the program.

> You have a moving space of 40-50 meters. You can access various positions. This is why jib arm is produced. It was created because of accessing camera angles which other camera supporting systems cannot reach. This is the first reason; how to achieve those angles (Participant 10, In-depth Interviews). [17]

In addition, it offers great mobility that the operator moves the camera very fast in the high paced TV programs or concerts in order to achieve rhythmic composition changes. In this sense, in post-observation interviews, Participant 10 criticizes the

directors when they prefer keeping jib arm unmoved. Here, we also see the consistency with the ideas of the same participant in different stages of the research.

> Frankly speaking, I find it weird when directors use the jimmy visuals static. Because for static images, they do not need jib arm. The feature of jib arm is mobility. So, I do not want to stay still, I want to move even very slowly in order to add some dynamism to the show (Participant 10, Post-Observation Interviews). [18]

Here, we understand that jib arm opens itself to the camera operators as a camera supporting system that is available for the frequent and fast camera movements as well as suitable for gathering images from different positions, which identifies the role of the jib arm among other camera supporting systems. Jib arm's potential of moving fast and reaching different camera angles also makes the camera people move their bodies. Like jib arm, other camera supporting systems present themselves to the operators as offering specific bodily movements and performances as well as different body postures and possibilities of problematics, which directly creates the circumstances of camera person's embodiment with the equipment. For instance, as a participant mentions and I both experienced and observed, when camera operators wish to get a composition from low angle via jib arm, then they need to reach out to the joystick and zoom handles. In these cases, they sometimes wait and move on their tiptoe. During the shootings, they are supposed to position their bodies to get the picture best. The equipment leads the operator to understand its revelation of functionality and lets her find her way accordingly. In this sense, in addition to the postural positionings of camera operator, her embodiment receives data from her bodily movements and coordination. For example, many participants especially mention the bodily coordination that the jib arm requires during the shootings. If the TV program is a dynamic one, this coordination becomes more critical. A participant explains this coordination as follows:

> First, you need to look at the jib arm, the monitor, that 9,5 meters iron jib arm, the camera that is placed at the end of that arm, and the objects around that you shoot. You need to do this by watching on your monitor and by looking around naked eye. At the same time, under the jib arm, there are floor manager and set

> photographer, and you need to control them in order not to hit them. There are people passing under the jib arm, you should be aware of them. The system goes on the rail dolly; thus, you need to check the rails in order to prevent the cables from the wheels of the jimmy jib. Otherwise, the cables may be cut or damaged. Simultaneously, you are supposed to move the jib arm, zoom by your hand, and maintain a smooth camera movement by creating the coordination (Participant 12, In-depth interviews). [19]

Here, this bodily coordination elevates the camera person towards an embodiment process with the equipment. Because the operator finds her way in this entanglement as focusing on the task while feeling the equipment as a part of or an extension of her body.

6.2.2 Equipment Transparency

Through the embodiment process with the equipment, camera operator becomes one with the camera. As Dourish (2001) explains Heidegger's example of hammer and hammering, he tells us that "my arm and the hammer as a single unit in my activity; they are coupled" (p.139). According to Dourish, coupling is about making the ways towards creating and then breaking down engagements with the things. When the body is embodied with the hammer, the user is coupled with it. Accordingly, we can say that camera people create coupling with the equipment during their embodiments, while they are uniting as a one entity. In this sense, camera becomes the extension of the body in the world. For instance, in field studies, a steadicam operator describes this embodiment process through the following sentences:

> When you wear that equipment, you start to move more comfortably. The movements that you can manage with a steadicam outnumber the movements with the camera on pedestal. It moves with you; it requires to be a part of you because of the waist movements that you pursue. The novice users find it difficult to use steadicam because the equipment directly moves away from the body. You pull the equipment with small waist movements towards yourself. And you arrange the distance between you and the equipment with those waist movements which are coordinated with your walking. Therefore, the equipment becomes a part of you (Participant 4, In-depth interviews). [20]

With this quotation, we can remember Merleau-Ponty's (1945/2002) example of blind man's stick, in which the stick works as an extension of the human body while mediating between the world and the blind man. Here, the camera as an equipment structures a unity with the camera operator and mediates between the operator's decisions and bodily actions and the composition that is supposed to be produced on the camera monitor. I will focus on this mediation process in next sections, however here the concentration is on the relationality between the operator and the equipment, which establishes the circumstances for the embodiment. This embodiment makes the operator focus on the task as indicated by the Participant 12 in in-depth interviews: "… the world disappears, only the task that you do remains" [21]. Heidegger (1926/1996) calls this potential in the artifact as readiness to hand. As mentioned above, being-in-the-world of the object presents itself to the subject through its potentials, which is here can be called as handiness or readiness to hand.

Wendt (2015) describes this readiness to hand as "human-object relationship based on active engagement. In this mode, the object is a tool for accomplishing a certain goal, becoming an extension of the user's body" (p.30). Here, the being of the object as 'in order to' becomes prominent. As Wendt (2015) interprets Heidegger, the task is achieved through the object, by utilizing the object; which provides the smooth engagement between the user and the object. This makes the object disappear from the user's sight and fade it into the background as the user becomes focused on the task. The way of being of Dasein is through the involvement of Dasein with other beings. Here, the being is the being of the object as showing its readiness to hand.

In this regard, through encountering the readiness-to-hand of their equipment, camera people manipulate the equipment and take care of camera operating process in their Lifeworld. This manipulation is also presented through the mastery and technical knowledge of the camera operators on the equipment, which leads them to actively engage with the equipment to sustain a seamless operating process. For example, a jib arm operator explains his manipulation of the equipment as following sentences:

> Mastering the jimmy jib means to get your thoughts directly done by the jib arm. So, in my opinion, I can manage to get the frames or compositions done via jimmy jib according to my plans or wishes. For example, I plan something: I come with jib arm from the above of the stage, I will go this way, I will continue till the close-up of the singer, and I will pan to the emptiness in the frame. If I can have these movements and compositions done as I decided in my plan, this means I can dominate the equipment. I mostly sustain this dominance, but rarely I cannot (…) As I have said, dominance is about… for example moving steady on the rails of dolly, adjusting dutch movements, panning, tilting, and focusing. If you can make all of them combined, then you dominate the equipment (Participant 18, In-depth interviews). [22]

In addition to this manipulation for the smooth engagement, camera operator needs to master the camera for revealing the situation of being 'in-order-to' of the equipment and to sustain this functionality. Because the equipment stays at ready-to-hand as long as it is handy, as long as it functions. Participant 16 emphasizes this situation as "… the camera in the studio is the instrument of the camera operator" [23]. He continues:

> A camera operator needs to master her instrument, her camera. Thus, she needs to sense the slight fluctuation on her monitor, an interruption in the sound, the value on the iris, or whatever she sees around. You cannot fix these types of problems in the live shootings. Therefore, you need to overcome them in live programs, otherwise the camera would be out of service (Participant 16, In-depth interviews) [24]

Here, another participant explains this being 'in-order-to' and functionality of the camera through the phrase "speaking the same language with the instrument". Here, the consistency in the user-equipment interaction makes the equipment manifest itself through its readiness-to-hand. Participant explains:

> If there are many things that the equipment can make, but you locate it improperly, you make the adjustments poorly or you make the camera absorb wrong amount of light, then you cannot be on the same wavelength because your technical language stays far below the equipment's. This makes the product insufficient, and the responsibility is yours, not the instrument's. Therefore, I believe that first, there should be a basis for understanding the capacity of the instrument for utilizing it efficiently. Otherwise, it is impossible

> to speak the same language with the instrument (Participant 3, In-depth interviews). [25]

Here, the communication with the camera becomes prominent while establishing the dominance on it and functioning it efficiently. Camera person knows the capabilities of the camera and herself as she embodies with the product in the Lifeworld. For instance, a participant states that "… if you operate it well and make the adjustments properly, then the instrument provides you everything" (Participant 4, In-depth interviews) [26]. In this regard, we understand that this communication is not one way, it is a reciprocal relationship. Because "… you start to discover it. It is not something given in courses. As you gain mastery, the instrument tells itself to you. It reveals itself to you as telling you how to hold it, what happens when you hold it like that" (Participant 4, In-depth interviews) [27]. In this relationality, camera operator organizes herself as considering the concurrency between her wishes and camera capacities:

> Why don't I use the capabilities of the instrument? If I don't want to tilt and if I will be only panning throughout the shooting, then I increase the falling balance of the steadicam in order to make it more stabilized. In this way, I can shoot the ceremonies in football matches properly. On the other hand, if you need to tilt up towards a portrait or something else during the shooting, then you can make the falling balance of the instrument according to it, as counting until 5 seconds. It makes the movement softer but more exposed to the shaking (Participant 4, In-depth interviews). [28]

In addition to mechanical capabilities, camera also offers software related capacity for creating a smooth connection with the operator. In this sense, a note from my autoethnographic study shows how some properties of the product make the operating easier and the operation powerful, as making the engagement stronger and leading the operator to embody with the equipment. I especially wish to give this example because, I utilize this property of the equipment frequently which gives me a freedom of anticipation in terms of focusing. Here, I choose to benefit a feature which is offered with the production of the equipment. It is not something that I

create, it is something that stays there to be taken advantage of, it is something that stays there to manifest its handiness:

> There is a cursor showing the focus point in numbers, which can be arranged via the menu. Someone who operated this camera before, arranged it. That cursor is a lifesaver for me because for example the focus point number of the speaker is 44 in a specific position, and when she comes closer to the camera it becomes 60; then I anticipate the value between them and turn the focus wheel accordingly as watching the movements of the speaker (Autoethnographic notes, Researcher). [29]

While knowing the capacity of the equipment and using this knowledge for founding a better connection with the camera, camera operator also adapts her body into the task. Here, camera operator does not only rely on the equipment, but also the interaction between the equipment and her body. Because seamless interaction can be provided through unity of the human being and the equipment:

> Every camera people know how to use the zoom handle. If you push towards left, it zooms in; if you make the opposite, it zooms out. But, when the director asks for a very slow zoom movement and if you know that you cannot control it just with your finger movement, you make it easier as wrapping your fingers around the zoom handle or you can make it adjusting the zoom speed. You give a better picture because you control the equipment (Participant 16, In-depth interviews). [30]

According to the quotations above, technical properties of the equipment and their merge with the knowledge and capability of the camera operator are significant on determining the bodily experience of the operator. As long as the equipment offers a seamless active engagement and leaves the scene to the task by withdrawing from the operator's sight, it reinforces the embodiment process. As Don Ihde (1990) states, the more transparent the equipment and the more feeling of the technology as integrated to the body, the better the embodiment. He mentions the equipment as technology and explains that if the technology is good, the embodiment process is usually easy. The adjustments make the process polished. The combination that is constructed by the capabilities of the camera and the operator reveals itself through

the adjustments. Field studies display that camera operators adjust and check various parts and accessories of the equipment in order to achieve seamless connection and sustained embodiment. The adjustments of camera supporting systems and their parts, head mounts, camera software and hardware, fittings and camera balances affect the way the operator uses the equipment. Before the shooting starts, camera operator is supposed to finalize her adjustments to feel involved in the task, however sometimes she needs to re-adjust the equipment during shooting because of spontaneous alterations in the context or task.

> I made adjustments because my height, weight, interest, reflexes, physical capabilities are all specific to me, they are personal. There are settings on the camera which provide specific adjustments for personalization. Since multiple users of the camera were taken into consideration, there are buttons on the camera that can be set for characteristics of the user (Participant 6, Post-observation interviews). [31]

The quotation above exhibits the operator is not the only professional user of that product. The user is required to share the equipment with her colleagues which makes her be sure about her own adjustments for each spatiotemporal experience. Because, in each case, the equipment should not only be ready for the task, but also for the operator. In this sense, the manufacturer offers adjustments to create better engagements with the operator.

Sometimes manufacturers may not sufficiently anticipate the needs of the operators, and these adjustments may not be enough for the operator to establish a unity with the equipment. Thus, personalization and modifications are needed to maintain a smooth operating process. For example, Participant 18 states that he modifies the focus wheel to make pursuing the task easier for himself:

> I do this to make it easy: I tie something like a small piece of stone on the focus wheel, where I can feel it when I put my hand on. I tie it on a position as a reference that the goalpost is focused… It is like when I put my hand like this, it will be under my thumb… When I turn the wheel, the goalpost is focused. If I work in the middle of the field, then this is suitable for both goalposts. If I work closer to one of the goalposts, then I arrange this for one of them… What does this provide me? When I frame that specific goalpost, I do not seek for

> the focus, as soon as I turn the wheel according to that stone piece, the frame becomes focused (Participant 18, In-depth interviews). [32]

As understood from this quotation, camera operator may not content himself with the standard features of the equipment and wishes to add a layer on it to make her interaction elevated to embodiment. That specific operator particularly chooses to connect through tactile sensing as adapting the equipment to him. On the other hand, for focusing help, for example I prefer using the numbered cursor. This shows that both of us try to reinforce our relationality with the equipment, just in different ways.

In addition to the adjustments, the handiness of the equipment is identified through its self-presentation to the user. Throughout the field studies camera people mention their camera operating processes while using camera on pedestal, tripod, jib arm, steadicam, drone, remote (robot) and hand-held. Each system has its own way to be operated while presenting itself as its being. For example, steadicam requires a different operating process than the jib arm, as offering a distinguished embodiment. Steadicam operators state, the operation of the system depends mostly on their walking on the stage, while walking is limited and slower in jib arm using. Besides, steadicam is a system that the operator wears on herself while the camera on jib arm is meters away from the operator. Thus, the way that the operator interacts with the systems changes. Steadicam and hand-held camera operators directly feel the equipment on their bodies; however, jib arm, drone or remote camera operators use the product from distant and via joysticks. According to Participant 4 in in-depth interviews, "while using robot camera, the interaction is limited because your control and reactions on joystick are different than your actions of panning and tilting mechanically" [33]. Besides, remote camera operators even do not see the camera during the operation:

> If remote (robot) camera is out of the shooting location, you cannot see the place. You arrange your compositions according to the information that you gathered before shooting. In cases of something extra happens visually -e.g., someone enters the shooting location- and you want to catch it in your composition… if you are on the shooting location, you see it by naked eye and

> turn to that incident to capture it. However, if you are located outside the shooting place while using remote camera, this cannot happen. There should be another way to see what is happing on location. You cannot see the details. This is a disadvantage of remote camera (Participant 4, In-depth Interviews). [34]

On the other hand, hand-held camera operation provides a different control mechanism on the system. It is located on the camera person's body during the shootings. The operator may use it on her shoulders, on her knees or just holding in her hands. In each case, she experiences a direct interaction with the product without any mediator of camera supporting systems. Indeed, human body becomes the camera supporting system. Since there is no mediation between human body and the camera, embodiment process occurs differently:

> (…) Hand-held cameras create a deep integration with the human body. It means, it becomes you. At that moment your eye becomes your viewfinder, your monitor. In other camera supporting systems, this happens differently. Because, while using hand-held, there is that feeling, camera is stuck to your body. You even feel its heat, its weight (Participant 21, In-depth interviews). [35]

However, in each embodiment process, the operator reaches the handiness of the product as handling its readiness-to-hand. As the Participant 21 emphasizes above, this readiness-to-hand is not only related to the transparency of the product while the operator focuses on the task, but it also offers the transparency of the operator. In Dreyfus' (1991) words: "Not only is equipment transparent; so is the user" (p.66).

6.2.3 Transparency of the User

According to Heidegger (1975/1988), as we encounter with the objects and discover their handiness as taking them our equipment, we find our way among them through our *circumspection.* When we enter a room, we do not deliberately think about the objects in the room as separate beings, nonetheless they are there as their peculiar

beings that we circumspectly experience. This is the awareness of their equipmental being. This awareness is towards the involvement of the user in the task. Dreyfus (1991) states that Heidegger calls the term of circumspection as "user's grasp of his environment in his everyday way of getting around" (p.66). Thus, according to him, this way of awareness is nonthematic and self-less, in which the user is absorbed in the world as dealing with the task. According to Wendt (2015), in this state, the actions of the user are without deliberate and conscious thought. He gives the example of orchestra musicians as telling that they are "wrapped up in their craft. They do not simply play an instrument, they pay attention… to create a holistic system of music" (p.41). Here, the musicians' attention is on their music instead of the instrument. Similarly, camera operators are focused on their task as become embedded in their Lifeworld and become transparent.

During the thematic analysis of the field studies, this transparency of the user shows itself through the codes of *unawares, by heart, automatically, habit, according to,* and *adaptation*. As participants express, when they focus on their task of creating compositions, they forget the rest of the world. They perform their actions automatically and they adapt their movements according to the requirements of the shooting circumstances. These spontaneous embodied moments were mostly revealed in autoethnographic stage and participant observations together with post-observation interviews, which focus on camera operators' instant interactions. Nonetheless, in-depth interviews also cover their narrations clueing embodied moments. As Participant 20 states in post-observation interview which was conducted after he operated jib arm in a music-entertainment program, "movements emerge spontaneously when you think the compositions. You act towards whatever is needed, you plan the compositions, not the movements" [36]. The participant continues with an example: "If required, I crouch down because of the composition. If I wish to use a foreground object which is very high up… there isn't any other opportunity" [37].

Furthermore, camera people forget how the time passes as Participant 19 narrates during in-depth interviews. He prefers to operate cameras which cover the actions in

close-up while shooting sports events. Because it makes him move constantly, he forgets himself and concentrates on covering the match properly. "There is a constant action in matches. I didn't realize if the game was over or what was the score in the game. When director told us for the last 2 minutes of the game, I got surprised" [38]. Therefore, when camera people are embodied with the product in their Lifeworld, their awareness and concentration stay on the task, on their compositions. Sometimes this concentration goes further and the embodiment with the product can be visible outside. In these cases, the unity that is established with the camera and operator is uncovered and perceived by the other people in camera or broadcasting crew. In this regard, the operator and the camera both fade into the task and are known by the people through the mutual movements or performances they create:

> I used to work bravely and risk taking. For example, in detail cameras… In the past, there were no technological equipment like today. Thus, I used to work in 2x (zoom extender) with standard cameras, in order to zoom in as much as I can do for close-ups. This risk taking was enjoyable. Then, when people saw my image, they predicted my name as the operator. Because other people do not prefer taking risk and getting close-ups (Participant 19, In-depth interviews). [39]

In a strong embodiment process that was exampled above through the quotations, the operator and the camera establish a unity in the Lifeworld. Then, the rest fades into the background as supporting the embodiment process. When camera operators embodied, they feel in the task as they are absorbed in their Lifeworld. In addition to their compositions which were mentioned in the previous quotation, this absorption can also be displayed through the acts of operators:

> (…) I was dancing behind the camera. When I say dance, I mean to be involved in. It is not a dancing that hinders the working. But tapping out is good, it becomes a speed reference when you zoom in/out and when you dolly with the camera. Thus, I think it is advantageous to adapt yourself to the rhythm of the music (Participant 21, Post-observation interviews). [40]

> When you shoot a piece of music that you like, you become involved. For example, I find myself singing that song as engaged into the music (Participant 1, In-depth interviews). [41]

The rhythm of the music makes them tap out and feel the song by their hearts, which lead them to pursue their camera operating in that rhythm. Many camera operators who were observed in music shows keep their connection with the task and context through involving into the music. This connection is sustained through concentration and motivation of the operators:

> If you focus on the music as really enjoying it and if you enter the spirit of it, you work exceptionally. For example, that musician singed a folk song excellent. I worked there without interruption. Because it is something I enjoy. You engage with it. Music is passionate that makes you feel great. And, when you work with those feelings because we are sentimental -I'm saying on behalf of camera people-, music gives a special thing (Participant 12, Post-observation interviews). [42]

> Of course, one approaches differently if she enjoys the TV program. If I like to work in that shooting, for example in classical music concerts, the piece of music really motivates me. I feel that I enter the monitor and through the lens I sway toward the musical instrument, I feel myself next to it. In this regard, camera becomes a part of my body, my soul, my being. That elevates my motivation (Participant 21, In-depth interviews). [43]

Here, we understand that the affection that the camera operator establishes toward her occupation is related to the way that she embodies herself with the camera and in her Lifeworld. The more she is affected, the more she devotes herself to the task. A steadicam operator tells:

> Concentration is completely about your affection. It is about being ready for the shooting and feeling the song. The one who operates the camera as enjoyed always feels this. She does not concern with the pressure on her waist, feet, or arms. This is the reason (Participant 11, Post-observation interviews). [44]

Another steadicam operator also mentions the joy that the camera supporting system gives her during the shooting. Here the affection comes from a specific type of

equipment because of its capabilities. In this sense, moving freely as utilizing the capacity of the equipment, makes the equipment and the user fade into the task:

> Using steadicam is enjoyable. It is very heavy; you carry around 30 kilograms on your body when you wear it. However, it is incredibly fun, operating it is enjoying. It is a system that you can do whatever you want with a single camera (Participant 8, In-depth interviews). [45]

In addition to the context and camera supporting systems that influence the way of affection of the camera operator, camera positionings and accordingly the camera tasks make them feel involved in the Lifeworld:

> Using the high-behind-the-goal camera is more enjoying than using the offside camera. Because you zoom in, zoom out, you cover everything. If a fault occurs, if the referee shows a yellow card, if soccer players fight, if something happens in the field that referee cannot see, you see it, capture it and make it broadcasted. This gives a huge satisfaction (Participant 22, In-depth interviews). [46]

Thus, this motivation and affection lead the camera person to be embodied and then to be satisfied through her embodiment. Here, satisfaction of the operator and joyfulness of the task creates another level of engagement. Because it is more than the embodiment that is described as being-in-the-world. Here, the operator is not only being-in-the-world, but also enjoys to be in the world.

> I really enjoy when I give beautiful compositions. When the shooting is over, your tiredness is over. I become happy if I give excellent compositions, then my tiredness flies away. If the composition and the music are good, you enjoy the process. You look at your composition, there is beautiful light, perspective (…) (Participant 7, In-depth interviews). [47]

> First, enjoying your occupation is crucial here. Being happy because of each picture, each composition that you give is important. The broadcast is watched by millions. We, 5 camera people work in a shooting. Thus, if your composition is broadcasted more, this makes you happier (Participant 11, In-depth interviews). [48]

Following the narrations of camera operators, their smooth interaction with the cameras and their absorption into their Lifeworld were led by their goal of creating the intended visual image -the picture-. They try to establish and keep their embodiment which offer the transparency of both themselves and their equipment. With this embodiment process, they pay their attention to the task of camera operating, accordingly to the composition. Either broadcasted or not, they put their effort to achieve their aims. In this sense, camera operators experience another layer of embodiment which occurs through the visual image, in their words: the picture.

6.3 Embodiment with a Goal: "The Picture"

In camera operating practice, the operator as embodied within the interpersonal network and with the equipment, pursues her task in order to capture her intended pictures. Thus, her intentionality manifests itself through the picture that she creates. Field studies show this intentionality as identifying the interactions happening around the picture, which lead the operator to be embodied with it.

According to the data coming from field studies, the notions of *camera angles, camera tasks, camera shots, camera movements, image movements, camera positions, framing and composition, camera person's narration, body-image relation, final image quality* and *consuming the image* are considered as main codes. These codes are not only related to each other under the concept of "image", but also, they are connected to the phenomenon of embodiment that has been narrated so far. With the help of these notions which are intermingled around the camera as an equipment, camera operator establishes her embodiment as maintaining a smooth and fluid task.

Framing

So, how does the picture occur? Putting the technical and optical phenomena aside, it happens through framing. Framing is affected by various factors, but in the end, it is determined by the camera operator's decisions and actions. Framing and arranging

the composition in the multicamera system is different than the news gathering or field productions. In multicamera system, camera operator needs to arrange the composition quickly, paying regard to other camera people's compositions and therefore keeping the editing in mind. For example, Participant 1 underlines this issue through the words: "in our department, it is very important to get the picture properly and quickly" [49]. Participant 10 mentions, camera people in multicamera system are "for the composition, for the task, for the reflexes" [50]. For these camera people, aesthetics is crucial. They even associate their camera operating occupation through the phrase of "aesthetical concern":

> When they ask me about camerawork, in addition to technical knowledge, I describe it as aesthetical concern... Painting is the basis for camerawork. What I am saying is aesthetical concern, painting is the basis of it… Especially the camera people are responsible for the high quality of the image (Participant 13, In-depth interviews). [51]

This quality image is the way, through which camera person narrates her story. Because we as camera people "we work in that 16/9 composition, we need to transfer the whole world via that 16/9. While doing this, we need to have a good composition background to make color, tone, spot, and pattern distribution within the frame" (Participant 3, in-depth interviews) [52]. Thus, during camera operating, camera person's concern becomes her composition. Her embodiment in the Lifeworld with the equipment is towards this goal of picture. Therefore, this picture becomes the result and reflection of her embodiment process, it becomes the manifestation of her being embedded in her task and Lifeworld.

While producing the visual image on her monitor, camera operator constantly adjusts this picture according to the aesthetical concern which makes her embodied for the sake of image. Especially in participant observations, I noticed these adjustments regularly. Since benefiting from being 'insider' researcher, I could follow and understand the actions that the operators exhibited during the shootings. Their actions were familiar to me, and when merged with the auditory data coming from

intercom, they established my perception about their embodiment with the composition. In this context, one of my observation notes in a music show says:

> The operator tracked the camera left probably to capture the keyboard player. In order to prepare the shot, she zoomed in quickly to focus and then she made the composition. However, at that moment, as soon as the baglama started to play, camera operator immediately changed the position of the camera, zoomed in to focus the baglama, prepared the shot and the director aired her camera (Researcher's notes from participant observation of Participant 14). [53]

Besides, as a response to my participant observation notes, in post-observation interviews, another participant tells a similar process of arrangements that he coordinated while he was working in another music show.

> This lens can only zoom in until shoulder plan. Therefore, I panned as keeping the shot in medium close-up. The reason is… If I panned the camera in shoulder plan, then in the middle of the movement, I would not see any of the chorists in the composition. Thus, in order to reduce this risk, I panned the camera in a bit wider plan, so when one person leaves the frame, the other enters. (Participant 3, Post-observation interviews) [54]

So, the compositions on the monitors of cameras are in constant change according to the flow of the program. Paying regard to this flow, camera operator always looks for an image, a picture. These arrangements are connected to many factors. The ways through which these compositions are prepared includes mainly *camera tasks, camera angles, camera positions, camera shots* and *camera movements*, which are also intermingled as affecting each other. Camera operator organizes these elements according to her decisions in terms of the image.

Camera Tasks

According to camera tasks, camera operator's arrangement of the composition differs. In a football game, 'pilot' camera gives the image from a wide shot, providing a general view. Thus, camera operator needs to keep the image as including the incident in the composition during the game. The audience follow what

is happening in the game and receive the general idea from this default -pilot- camera. In this regard, camera operator always keeps the composition in wide shot, otherwise the camera cannot pursue its task. Camera person who operates the default camera cannot zoom in or out radically, or she cannot follow the game in close-ups. Her bodily and camera movements are limited because the task requires more stability in the picture. Moreover, the camera should be located in the middle of the tribunes as seeing the whole field from the center. In this way, the camera captures the image in wide shot and from high angle. Participant 5 describes the task of this default camera as follows:

> What is pilot -default- camera? You locate the camera at the best middle position of the stadium… like you watch at home… when you watch the game at home, you view the match generally from this pilot camera. In order to give it to the audience, you put the camera at the best middle spot of the stadium -high angle is better-. The task of this camera is to make the audience follow the game restfully and without disturbance, and in middle-wide shot (Participant 5, In-depth interviews) [55]

In contrast to default -pilot- camera in sports games, detail camera which is located next to default camera follows the event in more close-ups. Therefore, the operator keeps framing as zoomed in while covering generally one player with the ball. Participant 5 continues with the camerawork of detail camera:

> There is detail camera next to pilot -default- camera. That follows the player in full shot. Since the image is more close-up, it challenges the operator. Because you need to keep the image focused. This camera also has a task. It follows the player in long shot and if a fault happens, then this camera catches the soccer player who hacks the other. If the referee shows yellow card, then the camera captures the card. This camera has the most responsibility from the camera person's perspective. I cannot say difficult, but it is intense. Because you need to pull the focus wheel constantly, you need to follow the game with one eye focused on your monitor, and search if something happens around with the other naked eye… In my opinion, the most responsible camera is pilot -default- camera, while the most responsible camera operator in the match is the one who uses the detail camera (Participant 5, In-depth interviews). [56]

Bodily Movement

Considering the task of the camera and the aesthetics of the image, camera operator arranges and refines her picture through bodily and camera movements during the shooting. In field studies I noticed, according to the picture that the operator plans in her mind and wishes to achieve through the capacities of herself and her instrument, she organizes her bodily posture and movements. She may change the camera angle and camera position, she may apply bodily and camera movements, she may adapt herself to the crew members to be in rapport with them and she may ask cooperation from other crew members such as camera control unit. For example, during observations, I encountered many situations, in which camera operator changes the camera angle and accordingly puts her body in a specific posture in order to capture her intended picture. Sometimes, these postures may be awkward and challenging for the operator, especially when she needs to wait for director's selection of her camera. In any case, her actions are to get the best of the picture. She applies her knowledge, creativity and skillful movements into her performance and produces the visual image. Here, participants of the field studies mention that they mainly do not notice their specific movements, they position their bodies for the sake of the picture. Mostly they became aware of their particular movements after they were asked about them. When I asked about his movements during operating jib arm according to my notes on observation sheet, Participant 6 replied as follows:

> Yes, it requires to move slowly with small steps. Or you may need to squat down or upreach with your arms while panning or tilting. This can turn into a physical behavior that you have developed over years. You may even do not notice until someone else mentions about it (Participant 6, Post-observation interviews) [57]

Other participants also narrate these automated movements that are executed for the sake of the picture. They underline that they perform the movements without awareness and without paying any attention to them. According to the participants, these movements emerge habitually as they become a whole with the equipment, with the picture and with the task. They emphasize, while creating the visual image,

their body moves with the image, with the equipment. Here, as mentioned in the previous sections, camera operator becomes embodied and focused on the task and image instead of herself or the equipment. They both become transparent, they both fade into the task and Lifeworld. As Participant 20 states in post-observation interviews:

> Let's say, your body gets the posture in which the picture requires. Towards the end of your movement, there are complicated camera movements, but you do not consciously think to execute them. You say, 'I will do this picture, afterwards…', then a lot of things become intermingled. There are pan, tilt, zoom, jib arm movements. Of course, you control the frame with joystick when you move with the jib arm. Otherwise, there will be disturbing spaces in the composition such as extreme headroom. You do everything as you only think of the composition, the picture. They come together with it, even the use of joystick (Participant 20, Post-observation interviews). [58]

Camera Movements

Caused by these bodily postures and movements, camera movements occur. In filmmaking and television sector, there are described basic camera movements as optical and mechanical (see Chapter 4). Most of them are valid for every camera supporting system, however some of the camera movements can be done only by specific mechanical systems. For example, while pedestals can offer ped up and down (crane) movements, tripods do not have that capability. Camera movements are important factors for creating the visual image, and they are fundamental in the communication between camera operator and the director. Directors ask the camera operator to pan, tilt or zoom instead of moving her body right or left. Therefore, bodily movements of camera operators are appeared through camera and image movements. Camera movements establish the common language of movement in camera operating practice and used for the demanded adjustments and transformations on the picture. In this sense, camera follows the bodily movements to create the dynamism of the picture in a smooth flow. However, as camera operators state in the field studies, these movements are not singular or independent from each other. They are connected and intermingled during the process of framing

and transferring the frame into broadcasting. Here, Participant 3 mentions this combined nature of camera movements and explains the challenge while coordinating these movement during jib arm operating:

> What are the movements? Zoom and focus, pan and tilt, tracking, pedestal ups and downs. Together with them, you dolly the camera, you make dutch movement. And all of them together… For example, when you start a movement, you have to make it synchronized and without shaking. You also must finish the movement smoothly. If you start one of these movements before the other one, then the image shakes. Therefore, carrying it out with the three-dimensional effect and keeping it synchronized, require an experience. Since we do not use it with an assistant and arranging the composition at the same time, we ourselves pull and push the load on the camera dolly which may increase up to 200-300 kilos. For example, when you zoom out from a close-up to a wide shot, and dolly the camera body on the tracks, at the same time your fingers need to coordinate on the joystick (Participant 3, In-depth interviews). [59]

Here, we can say that it is human body which leads a camera movement, and consequently a transformation in the picture. The quotation above shows that camera operator has to coordinate various elements simultaneously while she produces the picture on the monitor. Her effort is to transfer her intentions to her production through her body and the camera. In this sense, the technology as a mediator plays its role between the camera person and the composition as leading the human embodiment with the picture. Any surfaces occurring during the operator-camera interactions open the path for the movement of the camera. Camera -the equipment- transfers this movement to the image as mediating in-between. Here, camera operator extends her embodiment to a secondary level, in which she adds another layer on her embodiment with the product. This mediating role of the technology can be seen directly from participants' narrations of their camera operating practice. Participant 13 narrates in in-depth interviews: "(…) As I told, how my fingers touch the camera, zoom, and focus handles, and how they try to get a quality picture from them… This happens as connected to the coordination, my bodily coordination" [60].

Body- Camera Coordination

Bodily coordination is important because it also creates the coordination with the camera and with the picture. This coordination helps the body and the equipment to fade into the task and let the operator concentrate on the picture. Even though body-camera coordination differentiates considering different camera supporting systems and program contexts, in each case camera operator needs to pursue this coordination in order to achieve her composition:

> Everything from your fingertips… your whole body from your hand fingertips to foot fingertips, turns into what you are doing in the frame in 10 seconds… In this short time your body needs to live it, otherwise, the compositions do not occur. Yes, you can make a wide shot and take a simple one step with a simple panning. But this does not achieve the quality image that you demand. In order to get that plan, in order to make it real, you have to use your body (Participant 6, in-depth interviews). [61]

> While operating Steadicam, your panning and tilting need to be steady. Think that system is attached on your body as a third arm. Similar to your bodily coordination as your brain orders, you have to coordinate steadicam with your bodily movement. There are challenges. Your pan and tilt movements cannot be intermittent, you cannot miss your composition while rotating around the singer, you have to watch out the headroom and looking room (Participant 8, In-depth interviews). [62]

Here, we can say that the embeddedness of the camera operator into the task through her embodiment with the goal of visual image is established with the body and movement coordination. Therefore, the operator is fully aware of carrying out this coordination for the sake of the picture. As her intentionality is towards the picture, her adaptations are towards to keep and sustain the picture in the intended quality version. The examples above present us that camera person must be embodied with the equipment, which makes her forget the equipment and herself, in order to be embodied with the picture. Therefore, embodiment layers of the operator are inseparable from each other. They are not different versions of embodiment processes; they are facets of the same embodied being-in-the-world.

The Audience

As making her picture to be selected by the director and broadcasted on television screen, camera operator also considers the consumer of the visual image. This is because, the effort of the operator is for offering a picture that satisfies the TV audience at home. Therefore, most of the participants in the study mention this aspect of their camerawork and the influence of the audience on their embodiment process. Here, it is also apparent that, audience may be determinant on camera operator's compositions, but at the same time, camera operator also communicates with the audience and narrates her story through the pictures that she composes. Thus, camera operators feel themselves as the 'eye' of the audience. As Participant 8 emphasizes, they must "make the frame properly and without ruining the composition, otherwise they cannot be the eye of the audience" [63]. When someone watches the TV, camera operators need to shoot it considering their views and perspectives. In this sense camera operators need to know what the audience wants. As Participant 7 states:

> You have to a be a good TV audience. It is very important in our camerawork. What have you done? After a shooting… for example, after I shot a football game, I watch it again. What have I done in that game? I definitely get the feedback. I check 'OK; I made a mistake here, I should not do this again, I should have done it this way to make it better'… You have to get this feedback in the camerawork that you carried out. You must watch TV, watch movies, watch sports events and games (Participant 7, In-depth interviews). [64]

Through putting herself in the place of the audience, the camera operator anticipates what the audience needs and wants from the television sector. Even though camera operator does not have any influence on the program types and contexts that are to be broadcasted, in her limited circle she has an opportunity to tell her stories through her pictures as using the capabilities of her equipment. In this sense, operating a camera becomes her communication tool with the audience. Participants of the ethnographic study are aware of their responsibility and role of communication as they become more motivated to carry out their camerawork. They accept themselves as the transmitter of the visual images, which also makes them mediators of the

media sector. They mediate between the shooting context and the audience as the target group of mass media visuals. Thus, the pictures created by the camera operators are broadcasted to shape the world and perception of the audience:

> Because what you do is what people watch in front of the TV. Thus, they watch what you show, what you give them. In this sense, it is very enjoyable. It is motivating and exciting that people watch directly what you have produced (Participant 14, In-depth Interviews). [65]

> We must not disturb the eye of the audience. Compositions should be easy on the eye. For example, the movements should be stabilized, smooth. Apart from matches, we do not make sudden camera movements. Because it tires the audience (…) Indeed, our camerawork targets the audience: to make audience enjoyed. We want to give something good to them, this is what we aim. We want what we prepare in the kitchen to be pleasing, without too much salt or spice. We want it delicious (Participant 22, In-depth interviews). [66]

In this regard, camera person is aware of her role in this system and takes the audience into consideration during program shootings. Here, worked as a camera operator, I mostly put myself in the place of audience. However, this is not something deliberate while using the camera. Since tasks and accordingly universal camera plans are organized and developed over years according to the fact that audience are the consumers of the visuals, camera operators offer what best fits their taste without any deeper cognitive process. This generally happens automatically.

In the programs that are shot in multicamera systems, the story of the TV show that is transmitted to the audience is not produced by a single camera operator. Other camera people and the broadcasting crew are in the game. As an advantage of multicamera system, different aspects of the subject and the story can be given simultaneously, which allows the director to make a live editing.

Editing in Mind

Camera operators in multicamera system are also supposed to take the editing into consideration. As discussed in the section of ‘the interpersonal being’, camera operators organize their compositions as checking the composition of others. Thus, here, we can see the connection between the embodiment in the interpersonal

network and the embodiment with the picture. The embodiment is intermingled, multifaceted and multilayered.

Considering the embodiment with the picture, camera operator organizes her frames according to the pictures of others. If the image that is aired is a close-up, then other camera operators seek for a long shot in order to make it easy for the director to cut the next picture. This is also a strategy for camera people to make their prepared image selected by the director. This process of anticipated editing during the shooting in multicamera system becomes spontaneous and pursued by heart by the camera operators:

> (…) in a music-entertainment show, after a close-up image of a face, you start to produce what can fit there. You do it with your experience and knowledge. This happens automatically. While you are checking what is aired through the return button, your hands automatically produce another picture that can be integrated to that aired image aesthetically. Thus, a more efficient camerawork occurs (Participant 3, In-depth interviews). [67]

Here, we can understand that the cooperation and coordination among the camera crew is towards creating the picture and making it selected by the director and then broadcasted. This process is also pursued by 'a picture'-the broadcasted one- that communicates among the camera crew. Thus, camera operator produces her picture according to another camera operator's broadcasted picture. This recursive process happens because of the flow of the program, which is smoothly sustained in case the operator is embodied in her Lifeworld.

Taking Initiative

The picture that a camera person prepares on her monitor is closely related to the flow of the program and accordingly to the flow of the possible broadcasted pictures. While arranging her compositions and creating the picture on her monitor and viewfinder, camera operator gets motivation from her *occupational experience, technical knowledge, skillful actions,* and *creativity*, which altogether shapes her personal initiative. In addition to her personal decisions, she needs to follow the

director's orders while creating the image. As explained in previous sections, camera operator works in a hierarchical system with the director. Director is responsible for directing the camera operator to make her get the image. In this regard, if the director personally wishes to be more apparent, then she interferes more in camerawork. On the other hand, some directors prefer to give the general idea and explain her wishes to the camera operators in the beginning of the shooting. Then, during the shooting, camera operators have more freedom while creating pictures. The more the camera operators take initiative during image production, the more their personal resource become apparent. As Participant 3 emphasizes in in-depth interview: "If the director likes to work more experimental, then you contribute her according to her wishes. Then, the energy of the work increases" [68].

Taking initiative becomes also determinant in terms of what to cover in compositions when the director is not aware of the shooting environment. Especially during on location shootings, where the shooting context and environment are open to outer factors, directors cannot control and watch the circumstances during the shooting. In these cases, camera operator takes initiative for cooperation and coordination with the director and other crew. She arranges her composition best for the camera task, program context, and broadcasting regulations.

> Here, taking initiative is important because we are responsible to other working groups in terms of our camerawork. I refer corporational and professional responsibility. We work with a director. The director told me to stay at that spot during the shooting. However, later I took initiative and position myself on a different location. Because in a different spatio-temporality I realized different data in the field. By evaluating these data, I accomplish a very successful result (Participant 21, In-depth interviews). [69]

Besides taking initiative for the sake of broadcasting and camera task, sometimes camera operator pulls the personal relations into this decision making and action taking process. Some participants mention in the ethnographic study, they tend to give extra effort and offer different pictures through their initiative if they feel positive for the program and the crew, especially for the director. If the director and

camera operator are friends in personal, or the camera operators trust in the director because of her knowledge, the operator works more motivated in that TV show, which leads her to use her initiative more.

> If the director organizes everything well, then you get motivated and do your best for the director. Your devotion increases and you challenge your limits. Then only then, the work becomes really good. Sometimes, novice operators even accomplish great job. You may be astonished by their performance and say 'wow, you made it' while they response as 'the director was very good, I don't know how I made it'… Therefore, the dialog with the director is very important (Participant 22, In-depth interviews). [70]

Creativity

Relying on camera operator's initiative comes also with creativity of the operator. Because if the director leaves more free space to the camera operator, she gains more motivation to create aesthetical compositions and look for different camera angles and framings. During ethnographic study, camera operators frequently mentioned their process of seeking for different compositions to satisfy themselves professionally and provide the director better alternatives than the routine.

> Can I manage to explain what the camera operator determines? Not only one camera person, but many of them can do muchwhat. For example, in this situation, nobody can think of putting that ceramic jar, it is not something pre-planned. Then, we made cinematographic dramatic light on it, we received unbelievable visuals… That was one of the camerawork that made me excited that much (Participant 2, In-depth interviews). [71]

> There may be a piece of set (…) The pieces of flowers as foreground objects are not that important but, sometimes you catch very different pictures through unexpected objects. For example, the foreground object has a hole inside and you position the soloist exactly on that hole in your frame, as if she stays in the object (…) Normally with other camera supporting systems you cannot see that angle but while operating jib arm, you track down with the camera and notice the soloist just in that hole in the frame. Because the object is very close to the camera, it is unfocused, and it adds mystery (…) There is nothing like that in the studio, but camera shows it (Participant 20, In-depth interviews). [72]

The creativity that the participant mentions is closely related to the awareness for the shooting environment. Although the notion of awareness will be discussed in detail while I will be explaining the skilled practice in following sections, I wish to touch awareness here as an important element that sustains the creativity of the camera person. Operator is the one who can be alert according to the changes in the environment, or who can evaluate the possibilities and opportunities around. For example, in a music program, a camera operator can react to the situation quicker than the director, which leads him to compose new and interesting frames for the program:

> I look at the audience, the ones who sit there. Some time, the musicians started to dance, and I zoomed in them. The director did not see what I showed. So, what I am saying, I do not always concentrate on the musicians who are singing the song. I also check the ones who are not. I do not concentrate on a single subject. For example, in matches, I watch and see not only the areas that the ball is played, but also other players who are away from them (Participant 12, Post-observation interviews). [73]

In addition, the creativity comes with having a different perspective than the others. This makes camera operator be in pursuit of different compositions, camera movements, and narrations. As Participant 18 states, creating something that has not been done before and composing something that has not been seen before, fulfill the operator's satisfaction and embodies her with the visual image that she is producing:

> In football games, there are many things that were not done before. Finding them is important. For example, the sole of the football boots… 15 years ago, I was the first one who showed the football boots in close-up, it was striking. I was really satisfied with that picture because, it was done for the first time with those grass and field (Participant 18, In-depth interviews). [74]

Interestingly, two of the participants relate creativity with imagination in camera operating practice. They examine the imagination as the plannings and intentions that lead to creative and beautiful images. This perspective is significant in terms of the 'intentionality' notion of the phenomenological account. Considering all mental

and bodily activities of the camera operator is directly towards the composition that she produces via the camera, imagination carries it a further level. It shows that the operator is intermingled not only with the reality but also with the imagination and inspiration:

> You know, camera is like human eye. Indeed, the phenomenon of seeing gave the inspiration for camera. Regardless the camera that you operate, if you do not see around in a good way, then you cannot prepare a good composition. The composition that you reflect on the screen is what you see through your eyes, what you imagine. Even if there is no set in the studio, you plan beforehand as considering 'this object should stay here, and I can move like this…'. This is your imagination. Someone else may not use that object in the same way with you (Participant 22, In-depth interviews). [75]

Imagination leads the camera operator taking all aspects of shooting environment and context into account. She examines all elements as an opportunity of creating something new and beautiful on the screen. While doing this, she also relies on the equipment she uses. It is the equipment that promises her to approach her visions and her intended pictures. This is how the camera as a technological equipment shapes the world of the camera operator. This time, it does not only mediate between the operator and the world, but it also connects the operator to her imaginations. As Ihde (1990) underlines, "the imagination, too, gets embodied instrumentally. That is part of the shape of the lifeworld and its technological materialization" (p.187).

Stepping out of the line and the creativity are also related to 'playing' with the instrument, the technological mediator. Camera operators search for new and untried compositions through their awareness and aesthetical perspectives. But at the same time, they utilize the capabilities of the camera and their own bodies to achieve interesting frames on their monitors. They move bodily and with the camera while searching and deciding the frames. For instance, Participant 18 mentions, he used to make the camera on jib arm tumble to give an upside-down image. Or, Participant 15 explains that while he uses steadicam he plays with the equipment according to the rhythm of the music. According to the flow of the song, he rotates around the soloist, he pans to the orchestra and catches the vocalist again. As long as the director

stays on his camera and keeps it broadcasted, he plays with it. Participant 10 underlines that especially in music-entertainment shows, there are many things he can use to accomplish different pictures. He arranges his framings as considering and using the orchestra, audience, soloist, and other elements in the context.

Some participants relate creativity and searching for extra pictures with the notion of 'skill'. According to these participants, creativity also comes with skill and skillful actions. For example, Participant 18 describes skill as doing untried compositions and movements, while Participant 20 states, if an operator searches for different compositions and gives these alternative extra pictures at proper times, then she can be called as skilled; because, if a person is unskilled, she does not initiate for creative images. Same participant also emphasizes:

> Skill (…) Most probably, in this dynamic camerawork, skilled operator is who is in search of 'what to do' and makes it real regardless the problems. For example, I saw a composition of a colleague and congratulated him. In his composition, the subject (the guest in the program) was very close to the camera and wearing eyeglasses. At a very specific camera position, image of the other subject in the studio can be captured through the reflection of the eyeglasses. This happens very rare. My colleague saw it because there is something called skill. You can anticipate the composition can happen there (Participant 20, In-depth Interviews). [76]

Thus, the picture that is created by the compositional arrangements of the camera operator is also connected to her skilled practice. The way she embodies herself with the picture comes from the way she embodies in the network and with the equipment. In all ways and facets of this embodiment process happen through the skilled practice of camera operator. The way she uses her body and organizes her bodily experiences lead her to maintain and sustain her embodiment. Her skill acquisition and carrying out her task in a skilled way affect the way she is embodied and re-embodied. In the following section, I will try to give this relation between embodiment and skilled practice in terms of camera operating in multicamera systems.

6.4 Embodiment and Skilled Practitioner

As discussed in Chapter 2, skilled practice and expertise are related to the notion of techniques of the body, which was introduced by Marcel Mauss (1935/1973). Accepted and examined as the knowledge of the people in certain societies on how to use their bodies while carrying out certain tasks, 'techniques of the body' becomes a very important notion for this thesis study. This study focuses on the bodily experiences of camera people while operating their equipment in certain contexts. Here, these bodily experiences and the knowledge of camera operators on these experiences establish their embodiment in their Lifeworld and manage them to re-embody in case of interruptions. This knowledge of camera operating practice is acquired through a learning process, which makes the person become a camera person and additionally an expert camera operator. In addition to the learning process of camera operator, which brings the camera person skill and expertise, awareness is seen as a main theme that is strongly connected to the skilled practice of camera operating.

6.4.1 Becoming a Camera Person

Camera person is the one who executes the technique of the body and who performs the skilled practice of camera operating. This skilled practice of the operator accompanies the embodiment process. As discussed in Chapter 2, technique of the body, accordingly the skilled practice and the notion of embodiment have many issues in common to raise when the bodily experiences are on the table. Here, in this section, I will tackle the story of camera operators to become skilled and expert practitioners.

Learning Process

At TRT, learning process occur through corporational educations, trainings, and mentorship. Corporational educations are given to the camera operators who start their careers at TRT directly as camera assistants. Thus, other camera operators who

have been transferred from other departments or corporations, begin with hands-on experiences through mentorships. Besides, all camera people who participated in this thesis study, during their careers, have received corporational training programs and workshops concerning basic or advanced operations of specific camera and camera supporting systems. Corporational educations for the camera assistant include both theoretical and practical courses, which aim to instruct camera people on basic camerawork such as light, optics, camera shots and camera movements. Practical trainings follow the theoretical instructions, in which camera assistants find an opportunity to practice what they have learnt in classes. These educations are important for camera assistants to have a general idea on what the camerawork at TRT is and what is expected from them. In addition, these educations bring them basic capability on operating the equipment and carrying the task out. However, field studies present that these educations are not accepted as sufficient for executing the camera task in an advanced level. Camera people continue their trainings through hands-on experiences. Because as a technique of the body, camera operating is done through bodily experiences and is learnt through imitating and sedimentation. Therefore, the generality of learning process of camera operators at TRT is on hands-on experiences and mentor-protégé relationships.

> Actually, we did not know what the camerawork is. We learnt it hands-on through mentor-protégé relationship. This is how we started to work. We did not have a camerawork background beforehand (Participant 14, In-depth Interviews). [77]

> The main training in camera group is hands-on. Therefore, my first camerawork is also a part of my training. We started in relatively slow and still program contexts, in which there is relatively less camera movements offering relatively easy circumstances for the operator. This kind of programs are generally news and talk-shows. Thus, I started to work in news programs (Participant 13, In-depth Interviews). [78]

According to the field studies, mentorship is given through hands-on experiences. Novice camera operators are assigned as assistants next to more experienced camera people, which let them observe and understand the flow of program and the actions

that the operators take. Participant 5 mentions this process while narrating his first camera operating experience:

> We were assigned to the expert operators to watch and observe them. Each camera assistant was assigned to three camera operators. When I was observing one of them, that person told me that camerawork cannot be learnt only by observing and then passed me the camera to operate. I remember that I fully sweated in five minutes (Participant 5, In-depth Interviews). [79]

Learning through mentorship and hands-on experiences makes the knowledge of camera operating sedimented in camera operators. Camera person acquires the skilled experiences through the process of learning and establishes her own way of camera operating over the embodiment of this knowledge. In this sense, the instructional knowledge of camera operating becomes internalized and sedimented as tacit knowledge in camera operator's body and lets the operator rely more on herself instead of verbal instructions. As discussed in Chapter 2, tacit aspect of the knowledge is also related to gaining the expertise on a technique of the body. As the knowledge becomes sedimented in the body through observations and practices, camera operator acquires the skill and gains expertise. Her movement patterns begin to flow in the task without going into very deep cognitive process. She relies more on her body and her movements become more automated while executing what is required for the sake of the camera task. As discussed in previous sections, this concentration on the task is the manifestation of embodiment of the operator and her becoming embedded in her Lifeworld.

Skilled and Expert User

In the camera operating practice, the operator tackles the process in a skilled way. Following Ingold's (2000) description of the skill, camera operator uses an equipment towards a goal, which goes beyond applying mechanical forces and achieves a level of careful perception and action, in an ever-evolving process which is open to be transformed during the task. As Ihde (2009) gives the examples of a scribe who writes with brushes in ancient China and a surgeon who operates through

a laparoscopy, a skilled user applies her careful craft to the equipment or tool in order to achieve her intentions. This deliberate employment of the skilled bodily movements can only occur through a certain amount of sedimentation, and the intention in the beginning is open to be transformed on the journey. In this context, camera operator in a multicamera system at TRT executes her camera operating technique of the body in an embodied and skilled way. Because she operates an equipment to collect her intentions. In order to operate the equipment properly, she is required to gain at least a certain level of expertise mostly through mentorship. While operating the equipment, the operator uses her bodily technique and releases her decisions and actions in an awareness of the task. Accordingly, the composition plans in the beginning can change during these decision and action processes.

Considering the camera person herself, *long term and short-term personal resource* and *the process of her becoming a camera person* affect the skillful patterns of the camera operator. According to field studies, while *skill, creativity, occupational experience and style, decision mechanism, relevance to and knowledge on the occupation, background, physical-mental and emotional situations* are main codes that construct the long-term personal resource*; mood-motivation, initiative will, insufficiency* and *luck* are mentioned as short-term resources. As seen in the previous sections, these personal resources of camera person are also effective on the embodiment of camera operator in the system, with the equipment, and with the picture. They are also leading elements in performing the skilled practice. Indeed, these notions present the inseparable nature of the bodily technique, skilled practice, and the embodiment process of the operator. Camera operator becomes embodied as soon as she performs the task smoothly which happens because of the proper execution of the technique through skill and expertise.

Here, the determinant element for the skilled practice is the notion of skill. However, some participants use the notion of skill as referring the term of talent or the creativity. Some others examine this notion as the bodily and movement coordination, or the bodily capability and capacity that they can apply during the operating. Nonetheless, their understanding and perception of the ‘skill’ is still

deeply connected to what makes camera operating skilled practice and techniques of the body:

> Do you know what the skill is? For example, having a musical ear is skill or drawing is skill. Camerawork is a skilled practice overall. These people do really interesting work. For example, there are people who were born to be news gathering camera operators. You say, this person cannot do anything but camerawork. Or, here among us in multicamera system, there are very talented people. You watch their movements… There are objects there and she makes a movement, makes a composition, you say 'wow, how this can happen'. Because she plans it, creates it. She sees it. And, she knows the possibilities and opportunities (Participant 16, In-depth Interviews). [80]

> (…) Skill is the creativity dimension of the camerawork. And, hand-eye coordination (…) You start the jib arm training on the same day, but someone's joystick operation becomes very advanced in an hour, while another one still cannot pan properly after 4 years of camerawork. In this sense, skill is important, hand-eye coordination is important. Your bodily coordination and mental skills contribute to camerawork. However, skill is not everything. If you are skillful and talented but if you don't develop your skill and don't improve yourself, then you cannot pass the limits and advance it (Participant 3, In-depth Interviews). [81]

> Skill changes according to the camerawork. For example, considering the skill in a match or sports game, reflexes of the operator should be quick. Because turning from one goalpost to the other or turning from corner flag to the goalpost should be in seconds. Otherwise, the operator misses the position or the incident. However, reflex may not be very important for a camera operator in a documentary filming. There, other skills occur; she should be very good at composition rules. Therefore, skill changes according to the camerawork and even in which camera department you work. For a news gathering camera person, skill is covering proper sound and full images (Participant 1, In-depth interviews). [82]

According to the quotations above, the notion of skill is intermingled with various terms which altogether attempt to reveal the skilled practice. Because, as Ingold (2000) explains, skill is something multi-layered and multi-faceted. Camera operating as a skilled practice includes generating a very creative and aesthetical image as taking the other framing possibilities into consideration, covers performing high coordination among body, equipment and image, and reveals the awareness and reflexes of the operator. Here, reflexes are used as automated responses, in which the

operator reacts to the challenges in and agility and the most appropriate way. Skilled practice also includes many other aspects that I will try to explain throughout this section with the help of camera operators' own narrations.

Before passing to those stories, I wish to mention another important notion that is directly connected to skilled practice and technique of the body: expertise. Becoming an expert on a professional equipment use is crucial to the embodiment process of the user. Because, as explained in Chapter 2, in Dreyfus and Dreyfus' (1986) scaling of expertise level, the more expert the user, the easier she becomes embodied with the equipment. As gaining expertise, the user becomes focused on the task and embedded in the Lifeworld. As gaining expertise, the user begins to rely on her internalized skills rather than thinking of the manuals of the equipment. Therefore, in this thesis, the notion of skilled practice is mostly used as integrating the expertise into the skill. As I mentioned earlier, while mentioning 'skilled practice' in this study, I do not detach the expertise from the skilled practitioner, and vice versa.

Camera operator gains this expertise through the learning process that was explained above. Started with theoretical courses and followed by mentorship and hands-on practices, learning process of the operator leads the camera person to become an expert user of the camera in the multicamera system.

Therefore, expertise and mastering the equipment come with the occupational experience that the operator carries as the personal resource. The more she has experienced the task, the more she can easily master the equipment; which leads her becoming more embodied with the equipment and more focused on the task. For example, Participant 15 mentions the transformation of his perspective concerning the task as he gains the expertise on the equipment:

> After 2 years we started at TRT, we got steadicam trainings. However, it took 4 or 5 years that I felt I became one with the equipment. Before, when I was assigned to a steadicam work, I was concerned as asking myself if I could set the camera properly, fix the balance of the equipment, or get the compositions when I am on the stage. I was constantly thinking of it. But now, I say nothing. For example, today I am assigned a steadicam work again, but I am not concerned about it. Because I have a plan in my mind, I can master the

> equipment, I don't think that it will run away from my body. I made it accept my dominance. Thus, I am very comfortable (Participant 15, In-depth Interviews). [83]

Here, the expertise makes the operator feel comfortable with the adjustments and movements that he is supposed to organize. In this way, his expertise lets him concentrate on his camerawork, the task. Therefore, he is more open to be embodied as pursuing the task in a skilled way. Since he is not hesitated about his operation anymore, his bodily experience becomes more fluid without interruptions.

Occupational experience, and accordingly expertise on operating the equipment makes the operator fully embodied with the equipment as she establishes the connection with it. She masters the equipment, she becomes a unity with it, she forgets the being of the equipment and concentrates on the task, she feels it as an extension of her body and as Participant 19 narrates, she "plays with it like a toy". According to the Participant 19, repeating the same camera and bodily movements countless times over the years lets him master the equipment. Occupational experience as a constant process adds expertise on the camera person and develops her through skill acquisition. Participants 5 and 6 narrate in which ways occupational experience differentiates on camera person's performance:

> This is proven by experience. Your point of view changes, your visual knowledge expands, your crafting ability improves according to how long you have done this camerawork, how many images you have seen and how much experience you have received from master people. For example… Maybe it is very simple but on the first day you cannot maintain the zoom pace. However, it improves over time. What about other changes? Let's consider a music-entertainment show. When I was a novice operator, I did not know what obua is. Now, after so many times of camerawork in these programs, your ear gets used to its sound and you can directly -as a reflex- pan the camera to that musical instrument. This happens over time (Participant 5, In-depth Interviews). [84]

> When I was a novice camera person, my reflex of decision making was not very quick, because it is a process, in which a lot of stuff happening in the brain in a very limited time. For example, something happens in the environment. And when you decide whether or not, to pan the camera to cover the incident,

> your occupational experience gets involved. Why? Because, as an experienced operator you have learnt, you have an opinion about if it requires to take initiative. Since you have seen many examples before, you can decide quicker in limited time (Participant 6, In-depth Interviews). [85]

Here, we can understand that occupational experience leads the camera operator to master her craft and to gain expertise on operating the task. At the same time, occupational experience supports camera operator's embeddedness in the Lifeworld as making her familiar to the environment, context, and the system. In this sense, camera operator does not only become an expert user of the equipment, but also an expert of how to tackle in the Lifeworld. Therefore, while camera person learns how to operate the camera, she also gains the ability of skillfully reacting to the conditions according to their requirements. The process of becoming a camera person uncovers the ways of becoming embodied. An expert and skilled camera operator is embodied during her task of camera operating unless any interruptions happen. She forgets herself but she is aware of the task. This awareness that is gathered through the expertise makes her attentive and watchful for what is happening during the task.

> You have to see around. For example, I especially look around while operating detail camera. But, this is something that you gain over time. In the beginning of my career, I could not manage that. This is not an inherent ability. Over years, we passed through disasters, missed goals in matches, gave unfocused pictures. We all passed through these. These were years ago. (Participant 19, In-depth Interviews). [86]

In this sense, camera operator's skill is intermingled with the expertise, and her skilled technique of the body demonstrates itself through the awareness of the operator as she interacts with the people, the equipment, the composition, and the environment. Awareness becomes the way of camera operator's executing her task, establishing, and sustaining her embodiment.

6.4.2 Situational Awareness

Both auto-ethnographic and ethnographic studies exhibit that camera operator carries out her camerawork in a constant situational awareness through *anticipation, automated responses, concentration, readiness, control, mastery, empathy, taking measurements, decision mechanism, risk taking, reactions to instant and unexpected situations* and *challenge.*

As discussed in the section of 'Transparency of the User', Dreyfus (1991) interprets Heidegger as stating that human in her Lifeworld is absorbed without a self-referential but an awareness of skillful coping. Thus, everyday actions of Dasein are mastered skillfully and with the awareness of circumspection. This is an adaptable comportment to cope with the situations in different adaptive ways. In these adaptive ways, Dasein uncovers the 'in-order-to' of the equipment. Accordingly, camera person skillfully tackles the situations in adaptive ways, and this leads the equipment to support the operator while pursuing the task.

Anticipation

Camera operator performs this skillfully coping through anticipation. She works in a constant anticipation during her camerawork. For example, she anticipates her next composition, director's orders, the subject's possible actions, and any incident that may happen in the shooting environment. Thus, she anticipates any element that may affect her embodied skilled practice. For example, in a football match, player's actions are important data for camera operator. By using this data, she anticipates and adjusts her compositions to cover the match in her intended way. Participant 9 exemplifies this situation as follows:

> In the football matches you know which player is active in the game and possibly makes score. Sometimes, you follow him. You anticipate where the ball would go as soon as he shoots the ball. You anticipate whether the ball goes to the goalpost or out because you have worked in matches countless times. You have an anticipation, and you follow the game accordingly. Then this turns into the occupational experience, and you can follow that ball in the game properly (Participant 9, In-depth Interviews). [87]

Besides anticipating the actions of the subject, camera person also anticipates other elements in the context. For example, in the following quotation, Participant 7 anticipates the music, decides her compositions, and coordinates her movements.

> If I know the piece of music that is played, if that specific instrument plays 10-15 seconds, I zoom out as keeping that 10 seconds in my mind to involve the instrument player in the frame. If the instrument plays very short, then I stay at that composition, I do not play with the camera, I shoot the player in medium close-up and wait like that (Participant 7, Post-observation Interviews). [88]

Anticipation of the operator also includes anticipating what her colleagues are doing. Because, in a multicamera system, camera operator coordinates herself in the interpersonal network of camera crew. As the camera people need to work while keeping the editing in mind, their compositions and therefore their experiences are connected to each other. This editing in minds leads the camera operator towards an anticipation of others' compositions.

> (…) Because two of same plan do not work for the director. In case you do not see the other camera person's framing -you may see the next plan for the broadcast, but you cannot see the others-, then you anticipate their plan according to your previous experiences. If you have already observed what your colleagues can do or what they want to do, you can use your anticipations. You anticipate according to their aesthetical and artistic perspective, their point of view. You anticipate through your previous observations (Participant 6, In-depth Interviews). [89]

Considering the quotations above, these anticipations require a basic knowledge of the operator on the subject, on the context, or on the colleague. However, anticipation can also be done for any other element in the Lifeworld of the operator. Camera person may also anticipate her own camerawork. She anticipates whether she can operate the equipment properly or not, by using her knowledge on the capacity of the equipment or her own capability of operating. She is aware of both the requirements of the task and what is presented to her in that spatio-temporality. Her awareness lets her expect the most possible alternatives and make her embodied in

the Lifeworld. As she anticipates the next move, her body automatically transforms to get what she wishes.

Dominance, Control and Mastery

Anticipation comes with the knowledge and mastery. As being aware in the shooting context, camera operator dominates the elements. This dominance includes *mastering the equipment, being aware of the situation, dominating the context, knowing the shooting content,* and *controlling the environment.*

As discussed in the section that focuses on the embodiment with the equipment, mastering the camera and related equipment is crucial for the embodiment and the performance of the operator. Camera operator releases her skilled practice through this mastery. The more dominates the equipment, the easier and more automatically she performs her movement patterns. Besides, technical knowledge and practical mastery help her finding practical solutions to challenging situations. Her knowledge on herself and on the equipment provides the operator a skilled coping in her Lifeworld:

> If you do not know what the equipment offers you and if you cannot master it, the equipment can easily betray you. It may paint you into corner, it may even label you as 'that cameraman cannot do it'. These equipments are difficult to master. Thus, you need to practice very well, you need to know the features in depth, and you should do the camerawork with a great confidence and psychology. In the first sports games that I worked, I performed with that mood and motivation. If you work with this dynamism, you get efficiency. In this sense, the crew is very important. If you work synchronously with the director and the crew, you become again more efficient (Participant 3, In-depth Interviews). [90]

Camera operator as a skilled practitioner does not only dominates the equipment, but also the context and the situation. Like her knowledge on how to use the equipment properly and efficiently, camera operator also has knowledge on how to cope in her Lifeworld. She is aware on any alterations in the context, and she follows any updates happening in the regie room.

Considering their awareness on the environment, while I was observing participants, most of the time I noticed that they were not just staring at the viewfinder -the monitor on the camera-, they were also controlling what is happening around. Participant 3 narrates this situation in her post-observation interview:

> In the meantime, I listen to the music. Simultaneously, I pay attention to what the director says. At the same time, I even follow how much initiative takes the vision mixer, if the director has not enough occupational experience, like today. This is because, there may be picture cuts and mixes without director's demands. I follow how these cuts and mixes are done. Today, there was also another thing that I followed. The picture coming from my camera was given to the main monitor which is located at the stage. I was checking whether jib arm was in my frame. Thus, you have to divide your mind into many pieces (Participant 3, Post-Observation Interviews). [91]

One of these pieces that the quotation remarks is knowing and being aware of what is happening in regie room. Camera operator may find a clue there to be an input for her operating practice. In post-observation interviews, Participant 18 tells the importance of following regie room. In that room, not only the director is effective on camera operator's practice, but also the other crew members influence the camera operator. For example, he mentions the assistant director feeds the crew in a concert shooting as telling them which instrument is about to play:

> Those feedings are very important for everyone. Other camera people also hear them. They prepare their compositions accordingly, and I do the same to support them. (…) Feeding the crew from regie room is very important. In my opinion, it is 20 percent of the work. In these feedings, it is also important to know where the instrument stops and the other one starts to play. For example, today it was told like 'after this instrument that one will start'. They are crucial for me, actually they are important for all camera people (Participant 18, Post-Observation Interviews). [92]

Here, following the regie room and being aware of the context is reinforced through the relationship among crew members. Thus, the intermingled connection between the embodiment in the interpersonal network and its reflection on how to pursue the skilled practice can be seen clearly. In addition to mastering the equipment and

controlling the situation and environment, camera operator also carries out her task through her knowledge on the shooting context. This knowledge helps her not only to anticipate what comes next, but also dominating her practice through this anticipation. Thus, camera operator creates the paths for her embodiment and skilled practice. This awareness that is established by the anticipation, mastering and dominance lets the body of the operator skillfully adapt itself to the situations. For example, participants mention their knowledge on football, through which they know the player and anticipate their possible actions in the game. Thus, camera operators adapt their practice according to this knowledge, which in the end get them best compositions and coverings for that particular shooting context. For example, as Participant 21 narrates during in-depth interviews: “This football player tends to shoot long distance in matches, then I should be ready for rapid pannings, I need to follow it via pan movement” [93].

Readiness

Here, readiness becomes the issue. Anticipation and dominance are for becoming ready for the next step. Camera person is always one step further than the audience. Because, while an image is aired and broadcasted, the broadcasting crew is busy with preparing the next image. Camera person, even her frame is aired at that moment, also thinks of the next frame that will probably be selected by the director. This is because the phenomenon of ‘editing in mind’, which leads the operators in multicamera system to take the editing into consideration as letting the director make live editing during the shooting. For example, if the visual image aired at that moment shows the subject in long shot, then the camera operator prepares her composition generally in close-up. Camera operator is supposed to prepare her composition as providing an alternative and make it ready in case of selection at any moment.

For example, in my autoethnographic research narrations, I noticed that I frequently repeated the phenomenon of my preparing the picture. Similarly participant observations captured these instant experiences deeper when compared to in-depth

interviews. This is because, both autoethnographic study and observations are towards receiving data from lived experience, in which picture preparation can be identified easily. Here, my autoethnographic narration also tells how I become ready and sustain this readiness in terms of my pictures.

> Now, the speaker is announcing the news in Camera 3. And, I -as operating camera 4- zoom out to long shot to be ready for the next announcing. Now, I will lock the camera and stabilize the picture, then in the next announcing I will unluck and continue. I leave my picture as proper, in case the director needs to cut this camera (From autoethnographic field notes). [94]

As understood, camera operator considers the next step of the flow of the program by making and leaving her picture ready for selection. Sometimes, this preparation of the picture requires additional efforts such as rehearsing the camera movement or checking the composition before showing it as a final picture to the director. This rehearsal helps camera operator to plan her initial frame, her camera movement, her final frame, and the timing of the movement. Participants find this plannings and rehearsals crucial if the camera movement is not something routine. With the help of rehearsals, operators check the technical and aesthetical requirements of the movement to become ready when they encounter with the actual movement.

Besides rehearsing a single camera movement, camera operators may also experience a total rehearsal of a piece of the program together with the whole broadcasting crew. These total rehearsals provide an understanding for the operator concerning the flow of the program, the demands of the director, and the rapport among the crew members. Rehearsals make the program familiar to the camera operator, which reinforces the embodiment process of the operator during the actual shooting. This is because, the operator becomes ready for the sensorial connections and tackling the task.

Readiness does not only cover the compositional aspect for the operator. Camera person prepares the shooting environment and the situation for herself, which helps her connecting to the elements in her Lifeworld easier and accordingly embodying

smoothly. For instance, steadicam operators need to check the environment because of work safety and preparation for shooting:

> We also check the environment. Where will it be used? Is it safe? We check where we need to go up and down. If there are stairs, we try to change it with ramp. After we control the environment, we tell the director whether steadicam can be used there, or which movements can be done. We discuss it with director (Participant 17, In-depth Interviews). [95]

> The environment that you work is absolutely very important. First, you need to prepare the environment for yourself. You must design the spaces, in which you will be moving. Otherwise, you may stumble and fall. Thus, that environmental control is very important for steadicam (Participant 11, In-depth Interviews). [96]

By controlling the environment and detecting the problematics, camera operator solves the possible crisis beforehand. Thus, preparing the environment and situation for the production helps camera operator to concentrate on her task instead of dealing with interruptions in the flow.

Camera operator is also responsible for making the equipment ready for the shooting. Before the shooting starts, especially camera assistants check the equipment technically and make it ready for the shooting. The assistants mostly perform this procedure at TRT because of their task description but mostly because of the hierarchical system at TRT. Even though the camera crew comes to the shooting location one or two hours before the shooting starts, the junior camera operator is expected to tackle the technical controls. However, as soon as the cameras are assigned to the camera people and the operators position themselves behind the cameras, each operator is supposed to control the equipment once more in case some adjustments or personalization are required.

Readiness as a very basic element of awareness is not limited to the readiness of other beings and materiality in the Lifeworld. It also covers the readiness of the camera operator as bodily, mentally, and occupationally. In a broader sense, becoming a camera person and learning how to operate the camera makes the operator ready as occupationally. Moreover, in the context of shooting a TV show,

camera operator makes herself prepared both for the total flow of shooting and for single shots. For example, Participant 13 mentions, he sleeps around 10 minutes before the shooting starts in order to increase his concentration and awareness. I find this data important because camera operator is also aware that he needs a total concentration for carrying the task smoothly while sustaining the embodiment. In addition, especially steadicam users raise the issue of stretching their bodies before the shooting, which makes their body physically ready. Moreover, Participant 20 indicates the long shooting hours in a volleyball match and states that he is aware of not being able to leave the camera during the shooting even for bathroom. Thus, he arranges himself physically and mentally according to this acceptance.

Besides these preparations before the shooting, camera operator also prepares her body for her next composition and camera movement during shootings. For example, in my autoethnographic notes, I frequently narrate that even though my image is not broadcasted at that moment, I keep my hands on the handles ready to make adjustments on the composition or make camera movements, in case the director cuts suddenly to my camera. I observed the same concerns during camera operators' practices in participant observation sessions. They almost always stay as stand by. They keep their body ready for any instantaneous actions. Therefore, they sustain their sensorial connection even at the minimum level in order not to be caught unprepared. Moreover, if the operator plans or is asked to move the camera, she prepares her body as positioning according to the camera movement. For instance, she may wait as crouched or upreached until the director selects her camera.

Automated responses

Through anticipation, control and knowledge, camera operator becomes ready, and this readiness turns into skillful actions through the operator's mastery and domination. Besides these elements, skilled practice of the camera operator is also performed through automated responses -which is mentioned as reflexes by the participants, empathy, risk taking and challenge. Camera people mention the notion of reflexes -automated responses- very often. Since skilled movements are learnt

through practicing and sedimented in the body, they may release themselves through automated movements, that are pursued by heart. Thus, when a quick movement is required, then automated responses appear in camera operating practice as shortening the cognitive process. In case there is a need of quickness, the sedimented knowledge of technique of the body presents itself as automated movements. These types of quick responses are mostly mentioned when the operators need to react unexpected and prompt situations or need to move very fast.

> We broadcast instantaneously, especially live programs, music-entertainment shows, and football matches. If your reflexes are not rapid, you may miss most of the occurring. For example, you may miss the drummer hitting the drum. I mean by reflexes to zoom in and focus very fast. Also, to notice… to notice that drummer is about to play. Or, in the football matches, to follow that kick or that ball focused. There are many happenings in a match, if your reflexes are not fast enough, then you may miss them. For instance, you may miss referee's actions, or you may miss the players substitution. Reflex is very important for our broadcastings. Being quick and being agile are very important notions. The ones who have rapid reflexes… they support the skilled practice. For our broadcastings, reflex is a very important notion (Participant 11, In-depth Interviews). [97]

As the quotation above shows, these quick responses that are mentioned as reflexes happen through the operator's being agile and aware of the shooting context. If camera operator realizes an instant element that should be covered in the program, then she pans her camera or zooms in to capture the subject in order to enrich the camerawork. This may be a colorful spectator in a match or an unexpected solo of an instrument in a concert. As soon as the camera operator notices the situation, she acts accordingly.

Decision Mechanism

In camera operating practice, decision mechanism also shows the nature of embodiment and coping techniques of the skilled practitioner, the camera operator. For example, while operating the camera with an initial plan, camera operator needs to keep in her mind that, in any moment an unexpected situation may occur. Thus,

she is aware and agile for these situations, she always has strategies to cope with these challenges. However, these strategies are not apparent, they are embedded in the embodiment of camera person and reveal themselves at the required moments. Participant 13 describes this process and how he takes initiative through this decision mechanism:

> (…) How much my eyes see, how my brain accepts those things that my eyes see… This is very important. All of my neurons are at work at that moment. Then my brain accepts and tells me to take that initiative as have received the knowledge coming from outer factors, from my eyes… Those same neurons then transmit me the command of 'do that'. With that command, I take that initiative (Participant 13, In-depth Interviews). [98]

The quotation above exhibits the total embodiment of the camera operator with his body and mind together. Here, we see the claims of phenomenologists as accepting the human as a whole with mind and body and again accepting that she is inseparable from her Lifeworld. As camera operator receives the data from the environment, she processes it through a decision mechanism which happens both in her mind and body. Her mind and body together decide and act. This decision making and action taking process occurs not only through embodied but also skilled practice. As mentioned above, the practitioner performs the technique of the body through the sedimented skill and expertise. Camera operator tackles all the elements in the Lifeworld synchronously. Thus, any change in one of these elements affect the way she operates the camera and the way she embodies in this world.

Concerning all elements of situational awareness that a skilled and expert camera operator consults during her camera operating, camera person skillfully adapts herself to the new situations and reacts through her own technique of the body. Thus, camera operator is in a continuous challenge in camera operating. The equipment, the context, other people, the environment may cause challenges for the operator and the operator organizes strategies to tackle them.

Challenges may include various elements in the shooting process. Whether overcome or not, they cause an interruption in the smooth flow of the task -the TV

program. In these cases, camera operator becomes disembodied until the adaptation to the new situation takes place. Here Heidegger's (1926/1996) claim of 'interruptions of the embodiment' occurs. Next section will discuss these interruptions and how camera operator reacts to establish her embodiment again.

6.5 Interruptions of Embodiment and Re-Embodiment

During the transparency of the equipment, during becoming a unity with the equipment, during the embeddedness in the interpersonal and material Lifeworld, during concentrating on the task and during tackling the task in a skilled way, Dasein is embodied and manipulates the object as ready-to-hand in order to accomplish a task. As Dreyfus (1991) narrates form Heidegger, readiness-to-hand is 'being in-order-to' of a thing, it is the handiness of the object, which makes it an equipment. As ready-to-hand, the equipment disappears or withdraws from the sight, task becomes focused. This embodiment also makes the Dasein disappear, she tackles the task in a skilled and mastering way. She forgets herself and focuses on the task. According to Heidegger (1926/1996), this is our primary way of encountering with the things. Thus, we are primarily embodied as being-in-the-world.

Considering this explanation of the embodiment above, camera operator establishes the embodiment in various layers which are in the system of TRT and the necessities of occupation, with the equipment, with the picture and as a skilled practitioner. However, this process is open to be interrupted. As Heidegger (1926/1996) explains, if we notice the usability of the object, if it is damaged or broken, it becomes conspicuous. In addition, if the object is missing, if it is not ready-to-hand, then it becomes obtrusive. Moreover, the object may become temporary broken down because of an obstacle that blocks the ongoing task. Then the object becomes obstinate. Nevertheless, all these interruptions make the object turn into *present-at-hand* from *ready-to-hand*. As present-at-hand, the object stands there as a mere object as detached from its context and availableness. In case of camera operating, the presentness of the object generally occurs as the 'obstinacy'. This is because,

camera operator as a skilled practitioner finds a way to cope with the problem, she finds a way to re-embody and re-focus on the task.

6.5.1 Interruptions

As discussed above, camera operator's embodiment is exposed to be interrupted by various factors, which I call as problems, crisis, and challenges in this thesis study. As field studies exhibit, problems occur because of *physical challenges, emotional, mental, social, compositional or movement interruptions, clash of director and cameraperson's plans, mistakes and failures, technical problems, alienations, environmental problems* such as climate or location, *clothing problems, risk or danger, personal relations* such as hierarchy and *equipment problems* due to its design or production. Most of the time, camera operator tackles these challenges by using her skill, expertise, and situational awareness, which are discussed above as the elements of skilled practice. Rarely, these problems cannot be fixed such as a permanent breakdown of the equipment or a health problem that does not allow the operator to continue the task.

This thesis study omits the permanent breaks of the flow and concentrates on the swing between temporary interruptions of the embodiment and the embodied moments. Thus, in this section I mainly discuss the problems which are open to be overcome and fixed or the ones which are tackled and handled temporally for the sake of broadcasting. These attempts lead the camera operator to connect sensorially again and find her embeddedness in the Lifeworld.

Problems Caused by the Equipment

One of the most referred problems in the field studies is technical problems. A trouble may occur because of a breakdown of the equipment. If the technical controls were done properly, these problems may be detected before the shooting starts. Otherwise, the problem may unexpectedly appear during the shooting which is difficult to tackle and overcome. Still, camera operator is aware of the possibility of

problems. These problems make the camera operator detach from the task and make the camera apparent to the operator. The focus shifts from the task to the equipment. The equipment receives deliberate attention as making the operator leave her embeddedness. The operator becomes interested in the very ontological being of the equipment and thus becomes disembodied. One of the participants tell this loss of embodiment through a technical problem as follows:

> Recently I worked in a program shooting in studio. There was a problem with the panning motor (which helps the panning wheel to rotate) during panning movement, camera was not panning continuously. We could not solve the problem with the technician. At the same time, I was aware that the director understood the problem, however he did not say anything not to offend me. In the end we changed the panning motor 5 minutes before the shooting ends. But it did not work again: that panning motor was broken down completely. That day, I really hated the equipment, I said I would not operate it again, I came to the boil. This kind of problems really annoys us. Technician also tackles it; he also does not want it to happen this way. However, since the maintenance of the equipment is not handled regularly, problems occur. This kind of stuff challenges us (Participant 5, In-depth Interviews). [99]

Here, we understand how a technical problem can cause a crucial effect. In the quotation above, the operator does not only split from the task mentally and bodily, but he also becomes annoyed and detach from the task and the equipment emotionally. In the case above, even the operator and the technician tried to find a solution to the problem, they could not manage, and the trouble continued. In this kind of cases, following Heidegger's descriptions, the object loses its handiness and becomes conspicuous. However, it does not completely useless because, camera operator continues to use the equipment with its flaw and the director accepts this flawed equipment and camerawork. According to my own occupational experience, sometimes directors may not prefer to continue with the problematic equipment and cancel to use it in the production. This depends on the director's choice.

In other cases of technical problems, camera person may tackle the situation and may find a temporary solution as relying on her skilled practice, in order to carry her task for the sake of the broadcasting:

> I will tell an incident that I experienced years ago… While we were broadcasting, my camera slowly descends on one side. The lock on one leg of the tripod was broken down. Therefore, the camera was going down on that side. And, that camera was essential. It was a football game and many images of that camera had been selected for the broadcasting. I saved the situation via descending the other legs to the same level. While doing that, a very heavy lens was attached to that camera, I was in a reserved area in which I could not ask a technician to come for help, there was no time because it was a live broadcasting and there was no one around to ask for help. (As an operator), if you believe that you can make it, then you go for it. But, not everyone can manage it. It is a very heavy camera, and you may not lift or control it. It is about knowing yourself (Participant 6, In-depth Interviews). [100]

In the case above, the embodiment of the operator is interrupted because of a technical problem causing the tripod not working properly. Here, we also notice the decision mechanism of the camera operator. He decides to solve the problem as taking all parameters into account. As a camera person, I can tell that another camera operator may find another solution, she may find the same solution in a longer time, or she may decide not to continue using the camera and performing the task. For example, a novice camera person or a camera person with physical disadvantages may probably behave more hesitated and slower. Here, we see that camera operator saves the situation as relying on and trusting in his skilled practice and expertise. The operator knows his limits and capacity to take an action and initiative.

Problems Caused by Product Design or Manufacturing

In addition to technical problems, sometimes camera operator encounters interruptions of the embodiment because of the product's features of design and manufacture. For example, a jib arm operator mentions a problem caused by the form of joystick:

> The main element that we use to move the camera is the joystick. We execute the camera movements and control the camera with careful handling via the joystick, and it is designed in a cube form. However, my hand is not shaped as a cube. Therefore, since I am not comfortable while gripping it, during the camera movements, I am uneasy about my operating as feeling the joystick would rip along from my hand. As we have been using it for years, we found

> easier ways. But, still, I grip it as challenging all limits of my hand, and after the camerawork, I go home as my hand aches. However, if it is spherically designed which adapts my hand and if I can operate it more easily, I think my efficiency at work increases (Participant 3, In-depth Interviews). [101]

Here, the participant complains about the shape of the joystick control and indicates that in order to use that product and sustain his connection with the task, he pressures his body. That specific form plays an interrupter role for the operator's embodiment and forces him to cast around for re-embodiment. In this sense, according to his interview, the camera operator tackles the situation through thinking over how to use that specific design in a more efficient way and he develops new gripping techniques. In his own words: "When you think over how you can use it more efficiently, how you grip it better and what you can manage by changing some parts of it, you in the end develop practical solutions with small modifications of the equipment (…)" (Participant 3, In-depth Interviews) [102]. According to him, these solutions make the task go on in that spatio-temporality. However, over the years, the problem that is not fully solved leaves permanent occupational illness to the operator. Besides, during the shooting, when he feels the pain in his hand, his awareness turns toward his hand and the joystick, which makes his embodiment interrupted recursively. Thus, these interruptions can be considered as short breaks between the embodiment moments.

Participant 21 also mentions similar design problem that causes physical pains for the operator in short term and health problems in the long run. This time the issue is the monitor/viewfinder of the camera:

> (…) From our side, the biggest problem is the position of the viewfinder: it is positioned high for us. It means, when we adjust our camera at the eye level of the subject, we have to look upwards to the viewfinder. Thus, generally most of us have neck pain, arthritis, and vision disorders. There are many things affecting us physically (Participant 21, In-depth Interviews). [103]

In this example, camera operator does not have any opportunity to change the position of the viewfinder, which forces him continue operating the camera as it is.

However, it interrupts the embodiment of camera operator and probably makes him pay his attention to his neck pain. Because, as a camera operator, I have experienced the same problem all the time. Even though, I did not mention in my autoethnographic narrations, here I can state that we tend to accept the permanent problem caused by that monitor position. Most of the time -if the context allows- I ped down the camera or set the camera on tripod as lowish as possible to position the viewfinder better for me. In this way, I try to eliminate looking upwards throughout the shooting. Otherwise, the neck pain creates a significant problem during long shootings.

Physical Challenges

As seen in the quotations above, the problems caused by the design and manufacturing of the product create physical challenges for the operator. Furthermore, physical challenges also include the troubles caused by the physical inefficacy of the operator or the problems brought by the context or interpersonal communications.

For example, if a camera movement or a composition from a specific camera angle requires a disturbing bodily posture for the operator and if she must stay in that posture for a long time, then the concentration of the operator on the task interrupts and shifts towards her body:

> For example, sometimes while using jib arm, I wait as upreached position for a long time. Director tells me that he will cut to my camera, he says my camera is ready, but you wait 5 minutes, and it challenges you. My hands start to shake (…) (Participant 1, In-depth Interviews). [104]

Here, keeping the disturbing posture for a long time creates a tiredness on camera operator which splits the operator from performing the task smoothly. Tiredness also comes from the weight that the camera operator loads and needs to control. Especially steadicam, jib arm and hand-held camera operators exert much effort while controlling the equipment, which causes tiredness, loss of energy and loss of

concentration. Even though they continue their camerawork, their efficiency decreases, and the level of embodiment gets shallower. A steadicam operator tells this process as follows:

> When we wear the equipment, we grip the post in certain angles and positions. It has a buffer system. Unless you touch this system, the equipment stays in certain angles and balanced. We carry out this balanced performance and stability via our soft footsteps. As we get tired, our footsteps become harsh and slower. Normally, we dominate and control the equipment by our waist, not our hands. However, as we get tired, we start to carry the equipment with our hands. When we begin touching the post, the image starts shaking. By doing this, we block the buffer system (Participant 4, In-depth Interviews). [105]

Clash of the Intentions

As discussed in section 6.1.2, camera operator and director may wish different compositions. If this discrepancy occurs while the camera's image is on air and the operator is in the middle of camera movement, the plan of the camera person and the demand of the director clash. I can tell that, unfortunately, this clash can be noticed on the screen as an inconsistency in the movement flow. In these moments, when camera operator hears a command from director that asks the opposite what she is doing, she loses her concentration and accordingly her embodiment. She begins to think about how she will perform. Will she need to continue with her planned movement? Or, will she accept the director's demand in the hierarchical system, give her plan up, and start a new movement according to director's wishes? For example, Participant 20 tells: "Not every command of the director is done. It is not because they are bad directors. It is sometimes, their wish is against the picture itself"[106]. Here I want to open a parenthesis: In addition to the operator and the director, picture itself becomes apparent. The picture has its own regulations and both camera operator and the director are supposed to know them. Thus, this quotation tells more than a clash, it also reveals the 'picture' as a player in the game.

This clash detaches the operator from the task as interrupting her transparency and making her bodily movements apparent to her. This clash makes the operator enter a cognitive process:

> You start a movement with jib arm, a body movement from left to right. Suddenly, you hear a command telling you to move left. That is the moment that the operator goes crazy. For example, when you zoom in, a command of 'zoom out' comes. Do not interfere the camera person! If you have not prepared a shot list, do not interfere the camera person! (Participant 22, In-depth Interviews). [107]

Unanticipation and Failure of Anticipation

Above, the clash of intentions happens because of not anticipating or not expecting that command of the director in the middle of the camera movement. This is because, the director is supposed to give commands before the camera movement starts. Like this example, camera operator's embodiment may be interrupted if she is caught unprepared due to unanticipation or mis-anticipation. For example, Participant 14 narrates:

> It was an incident that I observed while we were assistants to the camera operators. It was a football match. From the other half of the field, a player kicked the ball just intending to send it away. However, that ball hit the goalpost and scored a goal. The goalkeeper was not expecting it. Normally, catching this goal in the frame is something distinguished. Because, when you consider the camera tasks, none of the camera people prepares herself for it (Participant 14, In-depth Interviews). [108]

This missing of anticipation makes the camera operator miss the goal and accordingly interrupts the flow of her camerawork. As a camera operator, I can empathy the feelings of any camera person when she misses a goal in a match. It makes camera operator feel disappointed and disconnected. The major task of the cameras in a match is to keep the ball in the frame and capture the goal. Furthermore, sometimes this unanticipation may include the technical problems caused by any defect on the equipment. For instance, in my autoethnographic study, I experienced

a little shock when the jib arm did not function properly, because I was expecting it in good condition:

> The pan movement started suddenly. Even though I was very careful, I could not block that sudden movement. There is backlash in the panning and zooming systems of this equipment. For example, when I touch the joystick, it does not pan immediately. It is like zooming. It does not zoom in or zoom out as soon as I touch it. It takes some time for it to start moving (Autoethnographic notes). [109]

This un-anticipation made me be alarmed since my plans failed. I had to go into a cognitive thinking process in order to understand and then decide taking an action against this problem. Thus, my camerawork was interrupted and my connection with the task was broken. At that moment, I got disembodied in that Lifeworld and my attention shifted to the equipment from the task.

Here un-anticipation also covers the failure of anticipation. According to field studies, failure of anticipation happens very frequently during a shooting. For example, Participant 7 mentions his de-motivation process because of failure of his anticipation in a music-entertainment show. Since the assistant director misguided the camera operators about the following instrument, his expectation failed:

> I felt demotivated. The director cut to my camera, nevertheless the saxophone did not play. Then I had to defocus in order to lead her to cut another camera. You get upset because of this wrong directing. She selects your frame, and it makes nonsense (Participant 7, Post-observation Interviews). [110]

Camera person may also fail in her anticipation during camera movements. For example, Participant 15 narrates his experience of operating steadicam in a music program:

> (…) I plan my camera movement in my mind. Director cuts to my camera and I enter the stage. In the orchestra, there is a drummer who gets out of everywhere. I plan my movement, I am on the stage with the steadicam, while I am moving around the soloist, the drummer strays into my path. When I was a novice camera person, I used to stay stock-still. What was happening? Either

> the image used to be spoiled or the movement used to be interrupted (Participant 15, In-depth Interviews). [111]

Environmental Interrupters

As seen above, another person in the shooting environment can be the reason of the interruption. Especially shootings in crowded areas have a strong effect on camera person in terms of causing risk and loss of concentration. For instance, during my observation session of Participant 19 in a handball match, I noticed that sometimes the spectators tried to pass behind the camera person. When I asked about that situation in post observation interview, his answer was as follows:

> Here I kind of ensured myself, I thought they could not pass directly through the row that I stood, they would pass through the other row in the back. Sometimes if there is a space just behind me, I feel uneasy because of the possibility that they may bump into me, which we have experienced frequently. One person comes as watching the game and passes behind you. She may stumble on and spoils our camerawork. Here, I did not let them pass because of my positioning (Participant 19, Post-Observation Interviews). [112]

Besides the other selves in the Lifeworld, the materiality of the environment can also play a role in the loss of embodiment. For example, a cable on the floor or a part of the set may cause a trouble in the fluent flow of the camerawork and make the operator think of the problem itself:

> (…) I checked the floor. Because sometimes when I lost in the composition, the cable may get under the camera and during a camera movement the camera may stumble, and the image may become spoiled. Thus, I pulled the cable with my foot in order not to step on it (Participant 12, Post-Observation Interviews). [113]

Alienation

Camera operator may also lose her embodiment because of her alienation to the task. This may happen in several ways including loss of concentration, getting bored,

unsatisfaction, stress or emotional condition. Below, there are some examples of alienation that the camera operators mention during field studies:

> If you are late to the shooting, if you are hungry, if you need to go to bathroom, or if you are stuck on something, you cannot devote yourself to the task. In this situation, if you operate default camera in a match, what happens? (…) You detach from the task (Participant 17, In-depth Interviews). [114]

> If I shoot constantly the same subject, the baglama… I wished to see other pictures apart from it, I wished to see myself in the music. I did not want to focus just the baglama. I wished to see the whole shooting area. Because otherwise, when I stay on the same composition, I make more faults. It is like being tired of eating same food all the time. Giving the same composition distracts attention (Participant 14, Post-observation Interviews). [115]

To sum up the interrupters of camera operator's embodiment, we can clearly notice that many elements occur in the Lifeworld, are caused by the equipment, appear because of the content, and are created by the operator herself. These interrupters are limitations, problems, troubles, challenges, or crisis that make the operator stop focusing on the task and bring her attention to the equipment, to the environment, to the people around, or to herself. In these situations, following Heidegger's (1926/1996) description, the equipment becomes conspicuous, obtrusive, and obstinate, and accordingly present-at-hand. However, as field studies show, equipment is not the only party that loses its condition of ready-to-hand. When embodiment is interrupted, the materiality of the Lifeworld, the people and the camera person become apparent. Moreover, as Dreyfus (1991) explains, as embodied we devote ourselves to the task, however, when we are disturbed, the assignment also becomes apparent. Interruption makes them leave their beings as 'in-order-to' and makes them become beings of theoretical thinking. Because, in the presentness of them, camera person starts deliberately thinking.

6.5.2 Re-Embodiment Through Situational Awareness

When the embodiment is interrupted and the person detaches from the task, there happens a seek for re-embodiment. Dreyfus (1991) explains this process as, “after a moment of being startled, and seeing a meaningless object, we shift to a new way of coping and go on” (p.71). In this new way of coping, if the equipment is not totally broken down, one is still absorbed in the Lifeworld and her detachment is still somewhere that she can return. “Deliberative activity remains dependent upon Dasein’s involvement in a transparent background of coping skills” (Dreyfus, 1991, p. 75). Thus, we can say that temporary breakdown of the embodiment does not make the subject and object mere isolated notions, but it makes them unavailable for a specific spatio-temporality. Thus, the object can still gain its handiness through a skilled coping. In this regard, camera operator copes with the troubles and tries to re-embody herself in the Lifeworld, with the equipment, composition, and task.

According to field studies, re-embodiment process of camera operator occurs through skilled practice which includes situational awareness. Situational awareness makes camera operator get instant information around. Afterwards, using her skilled practice, camera operator reacts to these instantaneous challenges. As discussed in the previous section, in which the skilled practitioner is explained throughout her path to embodiment, camera operator uses her anticipation, mastery, control, automated responses, readiness, decision mechanism and empathy to re-embody. In addition to these skilled actions, occupational responsibility also helps the operator to re-connect herself to the task.

For example, I mentioned above that camera operator plans her compositional intention and camera movements before the director cuts to her camera. However, her plans are open to be transformed because of the nature of TV production. The operation is open to surprises such as director’s unexpected demands, someone’s unexpectedly entering the stage, or a cable on the floor that may possibly hinders the camera movement. Since each factor would cause either a problem or differentiation for the composition, camera operator spontaneously changes her mind for the sake

of the program and plans and executes something new. Thus, camera person skillfully acts with her mind and body while transforming the composition continuously. Besides, at the same time, the operator is being transformed by the Lifeworld. Camera operator receives any changes in the Lifeworld and processes it as a new input in her embodiment to become ready for the new situation and make the composition ready again.

In the following paragraphs I will give some examples that I gathered through my field studies, which exhibit how camera people re-embody themselves after an interruption happens in their process. For instance, Participant 12 narrates how he re-focus after a short alienation to the task. Because he is caught unprepared when the director cuts to his camera:

> It is like that you fall asleep on the coach, and you wake up just before your head noodles. It is like 'what is happening? Where am I?' That is to say, you assume you are ready; however, you are not, and you suddenly recollect yourself. Everything stops and you think 'what happened?'. With the help of the adrenaline, you re-focus yourself. In other words, you leave everything behind and concentrate on your composition (Participant 12, Post-observation Interviews). [116]

Similar to the quotation above, in participant observations, I noticed and frequently noted how camera people startled and re-focused when they were caught unprepared. Using their automated responses and occupational experience, they find the quickest way to re-connect with the equipment, composition, and the task. In one of the observations, when Participant 3 was caught unprepared, he slowly focused the unfocused image. In this way, the fault was not noticed, and the flow continued smoothly. Participant 12 got bored and was looking around instead of concentrating the frame. At that moment he noticed someone enters the stage and he suddenly caught that person in his frame. Here again, automated responses through agility and occupational experience help operator to come himself and re-establish his connection with the task as soon as possible. Participant 6 tells this contribution as follows:

> If you are experienced, you recollect yourself quicker. Indeed, whether you are expert or novice, you lose your motivation, which causes you to make mistakes. This is for sure. However, if you are experienced, your reflexes are quicker, and you fix the situation. But if you are novice, the time that takes you to fix the situation gets longer. And the novice user sticks on what she has done, probably the mistake about the camera movement (…) As she gets experienced, she can manage to forget that mistake and look forward by generating motivation (Participant 6, In-depth interviews). [117]

Furthermore, interruptions caused by the failure of anticipation are also overcome by passing through a re-anticipation process, which is organized as have taken lessons from previous experiences. For example, Participant 20 mentions his experience of shooting a tennis match, in which he re-anticipates and re-organizes his compositions according to the flow of the game:

> I noticed that I had to work in wider plans instead of close-ups. Because it became sunny and following the tennis ball became more difficult. You cannot see the ball properly because of the shining and reflections. Besides, male players hit the ball stronger and further away, and they return the shots behind the baseline. You see it, then you have to be wider in compositions. Here, first I tried to catch the other player in the frame, then after I understood that it was not possible, I organized my work accordingly. I developed the strategy of 'catch the ball, the player will hit it anyways', and worked accordingly. Indeed, this is available in all jobs, not specific to camerawork. Because, if you want to work properly, then you need to redraft your composition, your idea, etc (Participant 20, In-depth Interviews). [118]

In addition to anticipation, occupational experience and automated responses, camera operator also receive help from her decision mechanism and crisis management. For example, in case of a technical problem a camera operator saves the day through responsibility and taking initiative. This also comes from her mastery, knowledge and anticipation which are basic for skilled practice. In the following quotation, Participant 10 explains how he tackles a technical problem, which occurs in zooming function of a camera on jib arm:

> Before the shooting starts, there was no technical problem. That happened during the broadcasting. In these situations, it is important to keep the problem

> without letting it reflect on the broadcasting. At that moment, the management of crisis becomes involved: first, not to zoom in or out. You consider how to save the flow of the program without zooming. You make body movements from left and right to stall the director off. Here I mean, I move very slowly with the camera (Participant 10, Post-observation Interviews). [119]

Sometimes, a problem that causes the interruption of embodiment may affect the whole crew. In these times, re-connection to the flow of the camerawork may again be provided by the crew in coordination and cooperation. Participant 2 narrates this process as follows:

> How do we save each other? For example, if one of our colleagues does not see something through the camera because of the camera position, or if she cannot capture that incident in the frame due to a technical problem, then you may interfere in, and you save her. Sometimes, the director may not understand that the camera person is not able to capture what is demanded from her because of the camera position. There, you interfere in. Otherwise, your colleague will struggle until she manages to get what the director wants. Here, I mention something may possibly spoil the flow of the program. Therefore, this help is both for saving your friend and for saving the broadcasting (Participant 2, In-depth Interviews). [120]

Moreover, camera person has other strategies to keep the concentration and embodiment. For instance, when tiredness and other physical challenges make her detach from the task, she creates an opportunity for herself to re-connect with the camerawork. According to Participant 6:

> (…) Sometimes, I may kneel down in order to rest my legs and knees. Because, in a 1,5 hour of TV show, if you have stayed standing up, kneeling down keeps your motivation alive. Otherwise, your motivation distracts, you get tired, and you start to make mistakes. Because after a while you lose attention (…). Since our camerawork duration may be up to 3, 4, 5 hours, these small actions work as resting moments. They are necessary (Participant 6, Post-observation Interviews). [121]

To sum up, as understood from the examples above, in case of losing embodiment camera operator has her own ways to re-connect her body with the equipment, with

the composition, with the people, with the Lifeworld and with the task. In cases of interruptions, camera operator first startles, then tackles these problems. Because she knows that, pursuing a camera operating practice needs her to be embodied, which is provided by her skilled practice and technique of the body. Thus, her skilled practice which makes her establish embodiment, also makes her regain and sustain embodiment.

Here, we also understand that embodiment, interruptions of embodiment and re-embodiment happen constantly in a cycle, which makes the camera operator swings between embodied and disembodied moments and makes the equipment come and go between ready-to-hand and preset-at-hand situations. As discussed earlier, Dourish (2001) explains this swinging with the term of 'coupling'. According to him, coupling is "the way that we can build up and break down relationships between entities, putting them together or taking them apart for the purpose of incorporating them into our action" (p.138). According to him, our ways of orientation toward the equipment also determines the way that we incorporate with it. In order to continue using the tool smoothly, we have to be coupled with it. On the other hand, in order to re-orient ourselves and our actions toward the tool, the tool needs to be present. Thus, both situations of the tool have their own contributions to our experiences. Presentness-at-hand of the tool also provides new opportunities of coupling for the user. "Being able to disengage and reengage in different ways, that is, being able to control coupling, makes our use of equipment effective. It allows us to act through artifacts" (Dourish, 2001, p.139). In this regard, embodiment and re-embodiment, and the deliberate process between them coordinate the effective ways of use that the equipment and user negotiate in a relationality.

6.6 Summary of The Chapter

This chapter exhibits the findings of the field studies as exhibiting the camera operating practice from phenomenological approach. In this sense, this practice is

explained through the concept of embodiment, which occurs as multilayered and accompanied by skilled practice.

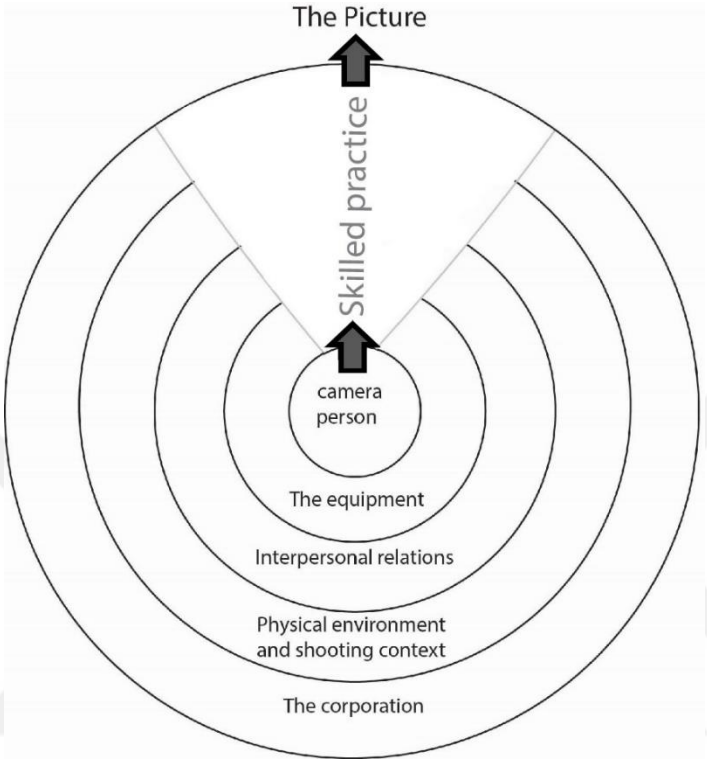


Figure 6.1 Camera person within embodiment layers

First, the camera operator works in a broad context which includes the corporation of TRT, the interpersonal environment of camera crew and other broadcasting crew, and the occupational surroundings including the program context and locational circumstances. These elements construct the phenomenological notion of 'Lifeworld', and each of them has great effect on camera person's performance during camera operating. With this influence, camera operator makes herself embed in the Lifeworld and becomes embodied as being-in-the-world.

Besides this sociocultural aspect of embodiment, camera operator also embodies with the product while the camera becomes transparent, and the task becomes prominent. In this process, the equipment manifests itself via its being 'in-order-to'

and becomes ready-to-hand for the operator. Equipment's readiness-to-hand refers its handiness and availableness. In this context, camera operator and the equipment together form a unity and the operator starts feeling the equipment as an extension of her body. In addition to the transparency of the equipment, camera person also fades into the task. She forgets everything but the task, as embedding herself into the task while operating the camera. Here, we mostly encounter Heidegger's explanations on the ways of human-artifact interaction and Dourish's notion of coupling.

Another layer of camera operator's embodiment is the process that happens for the picture. Camera operator embodies herself with the visual image, in camera operators' words: the picture. She arranges her frame, camera angles, camera movements and bodily movements for the sake of camera task and accordingly for the picture. In this process he is not alone, he works in a crew which also affects the image. In the path towards the picture, she may take initiative and use her creativity. In the end, she produces her visual image for the director to select among others and for the audience to watch on TV screens. Here, the intentionality of the phenomenology and the mediation theory of post-phenomenological understanding become important notions. Camera operator's consciousness is always of or about the 'picture'. Between her consciousness and camera, her body mediates. Between her body and the picture, the camera mediates. Then, between the camera and the audience or the rest of the world, the picture mediates.

Among these layers of embodiment, camera operator pursues her task fluently, she creates the flow of use. However, this embodiment and flow may be interrupted because of troubles which are caused by the equipment, the operator, or the environment. These troubles make the equipment turn into present-at-hand situation, in which the camera operator shifts her attention from task to the problem. Therefore, these troubles are challenges for the operator to be handled. In each case camera operator may react differently. As Heidegger (1926/1996) proposes, she may solve the problem of interruption and continue to take care of the equipment, she may try to cope in a modified way, or she may totally alienate from the task and stare at the

object. If camera operator finds a way to cope skillfully, the equipment gains its handiness again and the operator focuses on the using. Camera operator's situational awareness help her to re-gain the sensorial connection with the task and accordingly to be embodied again. Here, we see that while camera operator swings between embodied and disembodied, the equipment also waves between ready-to-hand and present-at-hand.

To conclude, all performances of the camera operator in her Lifeworld is to continue the task in flow. Thus, her interactions with the equipment and with any other element in the Lifeworld transform towards a relationality, in which the camera operator embodies herself.

CHAPTER 7

CONCLUSION

After reviewing literature, conducting field studies, analyzing the data, and presenting the findings, this thesis finalizes with this conclusion chapter to discuss the findings by revisiting the research question and to offer contributions and implications of the study in various areas. Besides, the limitations and further study proposals will be given in this chapter.

7.1 Revisiting Research Question

My research question was:

- What is camera operating practice in multicamera systems from the phenomenological approach through camera operators' perspectives?

First, camera operating practice in multicamera systems involve interdependent actants. As findings present, camera operator pursues her task in her Lifeworld through an intermingled series of interactions with these actants (see Figure 7.1) In this interdependency, as discussed in previous chapter, this thesis underlines the embodied nature of camera operating. Camera operator as a unity of her minded body and bodied mind, is also inseparable from the environment she interacts in. Her intentionality is of or about the task and the picture she produces through the task. She pre-reflectively knows how to move her body and perform her bodily movements according to the requirements of this task. She pursues her habitual actions in her phenomenal field and integrates the Lifeworld as she embodies there. Her experience is neither mere cognitive representations of what is perceived nor simple reflexes of motor capacities of the body. Her experience is the knowledge in her unity coming from the togetherness of her being in the environment as embodied

being-in-the-world. This includes both her instant experiences happening during specific shooting times of specific program contexts and her relatedness to that specific experience in various ways such as imaginational, emotional, conceptual, or affectional.

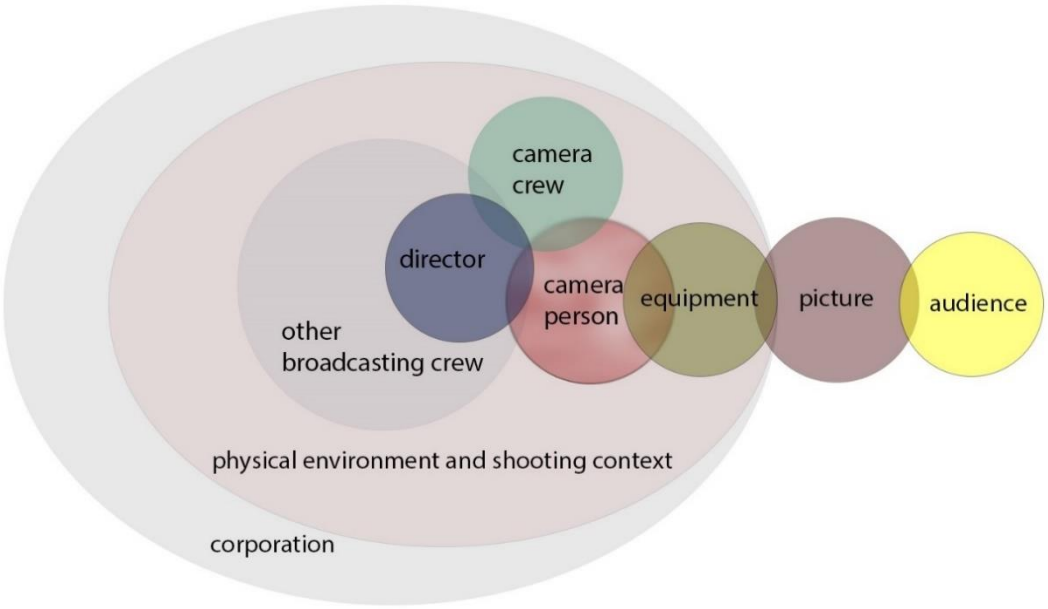


Figure 7.1 The interdependant actants of camera operating practice

In this sense, camera operating is an embodied practice and is carried out through embodiment layers. These layers are:

- *Embodiment in the system* that covers the corporate context, the interpersonal network, and the occupational environment (see 6.1).
- *Embodiment with the equipment* that suggests the transparency of equipment and the user (see 6.2), and
- *Embodiment with the goal of picture* (see 6.3).

All these embodiment layers happen simultaneously as the camera operator immerses herself into the task. In these embodiment processes camera operator

becomes the *Dasein* of her own Lifeworld and expresses her way of being as an embodied being in the camera operating context. In case of interruptions that detach the operator from the task and break the embodiment, situational awareness that comes from her *skilled practice* helps camera operator to re-gain her sensorial connection and make her re-embodied.

The following sections describe camera operating practice as involving other dimensions that are strongly connected to its embodied nature and explain this practice in multicamera systems from a phenomenological approach through camera operators' perspectives:

7.1.1 Camera Operating Practice Involves Technique of the Body and Skilled Practice

As field studies exhibit, camera operating that this thesis examines is a technique of the body, which is learned and executed by camera operators in the subculture of multicamera systems at TRT. Camera operators learn how to use their bodies while operating the camera on various camera supporting systems and in various program contexts through being mentored and hands-on practices. In this regard, the tangle of skill, expertise, and tacit knowledge sediments bodily and lets the operator exhibit her skilled practice. As I mentioned before, in this thesis, skilled practice is used as involving the expertise. Camera operators perform their practices in a skilled way, and in case of embodiment interruptions, this skilled practice also comes forefront (see 6.4. and 6.5). Ingold's (2000) description of skill reflects on camera operating process as follows:

- The practice happening between the camera and the operator is functional and intentional. Camera person has an intention of creating a picture as functioning the equipment.
- The skill of the operator is attributed to the body and bodily movements of the operator. For example, camera operator's capability of turning the focus

wheel of the camera in the most appropriate speed is about the way she applies force and dexterity in bodily performance.

- Skill is not only about applying mechanical forces. Skilled practice of camera operating also involves careful perception and apt decisions.
- Camera operating is transferred from person to person through mento-protégé relationships and hands-on practices.
- Camera operating practice is a dynamic process, in which camera operator is open to change her plans and bodily movements according to the requirements of the task.

As the field studies show, camera operator carries on her task with a situational awareness (see section 6.4) -coming from her tacit knowledge and expertise- that helps her to control the current situation, to anticipate the near future as becoming ready for it, and to cope with the possible problems as adapting herself to the other actants. By using this awareness, she keeps her sensorial connection with the task, continues immersing herself into the Lifeworld, sustains her embodiment processes, and regains her embodiment when needed.

7.1.2 Camera Operating Practice Involves Co-Generative Aspects

Camera operating practice results in producing an image to be aired on TV screens. Until this final output appears, the camera operator follows a generative process. In this process -as discussed in section 6.3- the camera operator uses her initiative, creativity, and imagination to achieve her intended plans of framings and camera movements. In this process, her interactions happen reciprocally which is co-evolving experience of camera operator, Lifeworld, and the picture. Here, the picture is an artifact produced through the skillfully operation of a technical equipment.

Ingold (2000) mentions, the process of making artifacts is not about applying conceptual form to the material and placing the artifact in the world. Indeed, making artifacts provides a surface of encountering where nature and human creativity

meets. Ingold examines this issue through investigating the process of basket weaving. Even though, in the beginning of the process, there might be an idea that the basket-maker wishes to create as a form, the form of the basket itself comes from the gradual unfolding of the forces on the surface of materiality which turns into an active and sensuous engagement between the maker and the material. According to him, "the artefact, in short, is the crystallisation of activity within a relational field, its regularities of form embodying the regularities of movement that gave rise to it" (2000, p.345).

In this sense, the picture that is created by the camera operator, happens in a reciprocal conversation with the camera operator and the Lifeworld which involves the interpersonal network and the material environment. For example, in a program shooting, as the camera operator has plans to zoom in from long shot to close-up and starts zooming in, she may receive a counter command from director asking not to zoom in; she may find out that another camera person in the crew also prepares the same shot; she may notice a problem in the set which can be visible in a close-up picture; she may notice a technical problem in the zoom handle which prevents her making a smooth zoom movement; or she may notice that the zooming in would not be appropriate for the context of the program. In these cases, the camera operator adapts herself to the situation and calls her awareness to find a solution and generates a picture of conversation with the Lifeworld. For example, she may change the direction of zooming in or she may add another camera movement to decrease the effect of zoom movement. In that regard, camera, other materiality, the contextual organization, and other people in the context are not mere objects and subjects that the operator manipulates to produce a desired picture, they are active participants of the practice which attend to the co-generation process of the picture. Thus, the meaning of the picture changes in relation to the camera operator's conversation with the Lifeworld. The picture now is not a desired and planned image of the operator that is decided in the beginning, it is a co-emergent artifact of the practitioner and the Lifeworld.

7.1.3 Camera Operating Practice Involves Sociocultural and Sociopolitical Use

Rosen (2006) examines Lifeworld as a place of interactions instead of an empty space. According to him, Lifeworld is not a boundless space, it rather has connotations of dwelling, residing, and inhabiting. Ingold also (2000) approaches Lifeworld as an inhabited world, and he relates this perspective with the socio-cultural anthropology. In this sense, the world is attached to form and meaning, and the interactions in the Lifeworld happen through the actions and affections of the people. This makes the Lifeworld inhabited. Following these perspectives of inhabited Lifeworld and Lifeworld of cultures and values, the interactions of a camera person in her Lifeworld spread over her culture and habitat. As discussed in Chapter 2, Crossley (1995) underlines the sociological aspect of the embodiment by stressing Merleau-Ponty's notion of intercorporeality. Intercorporeality is related to the embodiment of a person and performing body techniques in the network of other bodies as having the background of culture and society. Loenhoff (2017) states, our interactions, communications, and coordination in our social lives are linked to our collectively immersion in our cultures and societies. Thus, intercorporeality is developed through the reciprocal relationship between the subject and the environment -the Lifeworld-, as the social rules are sedimented in bodily acts.

Sociocultural and Sociopolitical Use at the Corporate Context of TRT

Schutz & Luckmann (1973) describe this Lifeworld as pre-scientific as accepting that it stays there as the same Lifeworld to other people. However, the way I understand and perceive this Lifeworld may be different from the others' because of the 'stock' we each have. The stock is transformed through the society, the community, and the past experiences of the person. Therefore, the ways the person understands, perceives, and attributes meanings to the world and the interactions within it, come with the community she lives in (Gurwitsch, 1962). In this sense, as residing and inhabiting at TRT, camera person builds her own stock. Then, through

this stock, she understands and creates meaning in the reality of her sociocultural and sociopolitical Lifeworld (see section 6.1).

According to Schutz (1932/1967), social and cultural stratifications of the Lifeworld structure the reference point for the people who live and interact in it, while they pursue their sociocultural activities. As Gurwitsch (1962) emphasizes, these references sediment over the years in the culture and society. Therefore, we build specifications such as cultural objects, tools, and human activities. For example, the way we use a specific instrument in our society may differ from that of another society, and our specifications may be different from our ancestors'. This phenomenon is familiar to us from the notion of 'technique of the body' (See Chapter 2), which may differ from society to society and even among the members of the same society.

Here the society is TRT and, in a narrower sense, subculture of multicamera operating for the camera person, in which she organizes her practice accordingly. Based on Gurwitsch's social phenomenology, Chelstrom (2013) indicates that membership is one of these ways and types of being with others of a person as interacting within a society. According to Gurwitsch, in this type of relating to others, a member is thrown to that world instead of choosing the relationship. Memberships in communities are towards comportment, as membership orients us according to the contexts and surroundings (cited in Chelstrom, 2013). Therefore, as Chelstrom (2013) indicates, membership in a community needs a shared understanding and values with others. Thus, the camera operator as sharing the institutional values with other TRT employees establishes a membership in the corporate. For example, a camera person at TRT knows what her limitations are in terms of framing the picture just because she works at TRT. Or she is aware of the systemic operations at TRT considering the notions of work safety or equipment acquisitions.

Sociocultural and Sociopolitical Use among the Broadcasting and Camera Crew Members

Besides being embedded as a member of a community in the corporation, camera operator also founds other type of interpersonal relations: camera person pursues her practice among in an interpersonal network, in which she performs her actions and interactions as a part of intersubjective world.

Phenomenology has a sociological aspect that arranges the experiences among interpersonal networks. Schutz (1932/1967) indicates that our intersubjective knowledge gained through our interpersonal networks, is bound to both our spontaneous and stock experiences. In this interpersonal network, I have my lived experience of the other person's body, her behavior, her actions, relations, and productions. Consequently, even though it is not possible to have the same knowledge of the other, which is only accessible by her, I can apprehend this subjectivity and construct my perception about her through my own experiences.

While operating the camera, I am conscious of or about the other people in the Lifeworld as well as of or about all the other objects that I interact with. Carr (1973) raises the issue that the other one is both a part of the objected Lifeworld as she is inevitably related to it, and she is the subject as perceiving me as embedded in this Lifeworld. Thus, when I operate the camera, I perceive the other camera person as situated in my Lifeworld as a part of it, and she perceives me through my embeddedness in her Lifeworld. Following Carr's (cited in Chelstrom, 2013) ideas on this concept of plural subjects, some of my total experiences cannot be reduced to my first-person intentionality without losing some meaning. In this sense, creating a TV program together with a camera crew and then broadcasting it together with the broadcasting crew are something different than my singular experience of producing a picture on my viewfinder. Here, the bodily experience of a camera operator occurs both through singular and plural intentions. First person experience may differ from the collective one. However, they both establish the stratifications of embodiment process.

Here, if we look at Chelstrom (2013) again, we can see Gurwitsch's explanation of partnership as sharing a common goal, which can be considered as the camera operator's relations to broadcasting crew. Furthermore, Gurwitsch's (cited in Chelstrom, 2013) a step further intersubjective interaction type is fusion, in which a feeling of unitedness and the spirit of oneness comes foreground. Thus, the embeddedness of the camera operator in the camera crew can be regarded as both partnership and fusion. The camera operator in multicamera systems shares a goal in a collective manner with the camera crew, and she fuses in this crew in terms of her decisions and actions. She is embodied in the crew. She is embodied as an interpersonal being.

In this sense, camera operating is not a singular manipulation of a product, but it has collective and situated dimensions. Lifeworld that the operator inhabits, proposes an arena for the operator to be immersed in the materiality and the intercorporeality. As Suchman (2007) describes the situated action as depending the actions on the material and social circumstances, and as discussed in 6.1 that explains the embodiment process of camera operators in the multicamera system, camera operating practice is inevitably related to the interpersonal and contextual actors, which elevates the practice towards a complexity. Aktaş et al. (2022) -in the pursuit of investigating felting, make-up, and camera operating- indicate the complexity of this practice as follows:

> (…) or using a camera, they involve complex, multilayered interactions, in that even simple practices that seem to be taking place between one maker and a single material are built on complex relations that are interdependent on several humans and nonhumans (p.67).

Dourish (2001) describes the notion of practice as people's actions that fit into ongoing activities. These actions are situated in the community of the practice with the common goals and expectations of the members. With this community, meanings and values are shared, and an individual gradually enters the system as acquiring the abilities to perform in that community. Accordingly, while entering the multicamera

system, camera operator receives a learning process telling her occupation in the system, in which mentor-protégé relationships concretize the collectivity and situatedness. Camera operator gathers this corporational culture before attending the system. After the attendance, the operator also needs to adapt herself to the system to make it work. Thus, before the shooting starts, the system structures its contextual framework for the practice. Therefore, as very related to the sociocultural and sociopolitical use, the immediate action of the person is beyond an instant performance. The knowledge that makes her perform is dispersed in the system of people, technology, and the world.

Here, I should underline that, I can discuss abovementioned sociocultural and sociopolitical aspects and accordingly the collectivity and the situatedness of camera operating practice, because of examining the practice in multicamera systems and from camera operators' perspectives. In any other perspective, findings and discussions would be different.

7.1.4 Camera Operating Practice Involves Mediations

As we are familiar with the term 'relationality' within the phenomenological approach and understanding, human experience happens as related to Lifeworld. Ihde (2009) adds another level on this relationality and states that human experience and accordingly human consciousness are mediated through the technologies. Technology mediates our relations in the Lifeworld while directing and organizing our consciousness as it also constructs our reality through this mediation. Verbeek (2005) also mentions the shaping role of technology in human-world relations and the context-dependency of the mediation through this technology. Because technologies themselves do not control the mediation process, they lead the mediation by offering use and practice contexts around themselves. As Ihde (1990) expresses, "technology must fit the use" (p.74). In this regard, camera -with its all hardware and software fixings and accessories- as the equipment and instrument of the camera operator, which is used to create broadcasting images, mediates between

the operator and the task as constructing her experience within her Lifeworld. The camera operator adjusts her bodily experiences towards creating the visual image that is to be broadcasted. Therefore, her decisions, actions and interactions are always for achieving the intended picture. However, here, this intended picture gains another role. As following Ihde's (2012) ideas on multistability, camera person experiences the variations of what the technology offers while reconstructing a second level relationality around the picture. Here, technology offers not only the mediation through the camera, but also through the picture. As being created, the picture also becomes a creator of other relationships.

In this regard, in camera operating practice, technology does not only shape us through the equipment of the camera, but also through the artifact of the picture which is created by the coordination of human, Lifeworld, and technology. Picture becomes a technological production that adds another level on human embodiment. While experiencing the three-dimensional Lifeworld, camera operator also experiences the two-dimensional reflection of that world on the camera viewfinder. This two-dimensional reflection is a section of the reality, as it also creates its own reality during the shooting and broadcasting. As discussed in the findings, the camera operator and the director communicate through the picture and the picture becomes a feedback surface for them. The director commands the operator according to the visual information she receives from the picture. In addition, camera operator either follows these commands or pursues her initiative by applying bodily and camera movements which changes the picture. Regardless of the picture's being broadcasted or not, any alteration applied on it becomes another source for the prospective commands of the director and the initiative of the operator. Besides mediating between the operator and the director, the mediation role of the picture among camera crew members was also discussed in detail when the tendency of 'editing in mind' was explained in findings. However, here the mediating picture is the broadcasted one as providing information to the rest of the camera crew while they adjust their pictures accordingly. As soon as the next picture is selected by the director, the process starts again.

Furthermore, as the findings exhibit, the materiality of the Lifeworld is also mediated through the picture. Here, the mediating picture is the one that the camera operator composes on her viewfinder. Considering the angles and coverage of the picture, each time the camera person sees specific parts of the Lifeworld in specific framings. As explaining Ihde's approach to the mediation theory, Verbeek (2005) states that naked perception is not the same perception that is gathered via the artifacts. In this regard, mediation transforms the perception, either as an *amplification* or *reduction*. Technology makes some aspects of our perception loom larger, while diminishing other aspects. In camera operating case in multicamera systems, the picture limits the operator's vision when compared to naked the eye in terms of the camera angle and position. On the other hand, the picture reinforces camera operator's initiative and creativity as letting her use initiative and creativity in that specific camera angle. Besides, the camera operator receives feedback through the picture, which amplifies the visual memory and visual interpretation of the operator. The camera operator interprets the Lifeworld through the picture. For example, if something blocks the camera movement, the camera operator understands it through the shaky image; or if the light is not enough for the sensor of the camera, camera operator sees its reflection as the change of aperture on her viewfinder. In this sense, the camera as the instrument and the picture achieved through this instrument change the reality and the perception of the operator. Camera person starts to evaluate the Lifeworld according to the picture that she has on her viewfinder. Thus, the meaning of the Lifeworld alters.

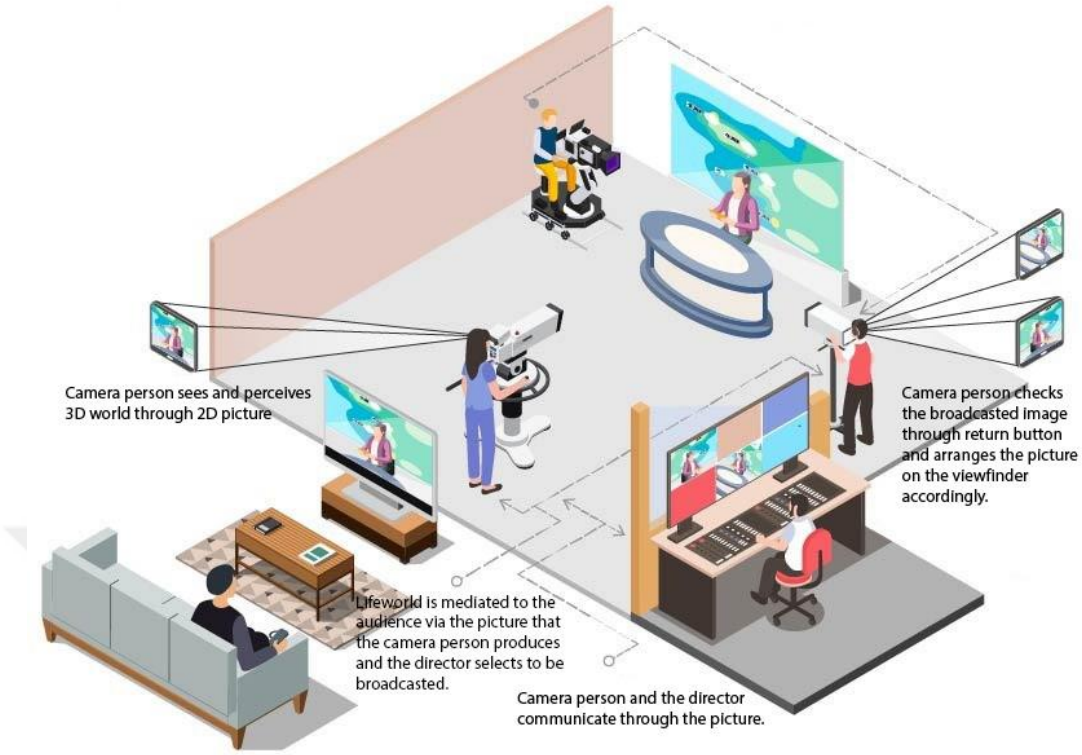


Figure 7.2 The mediations through the picture (Figure: Researcher, S. Yardım & N. Cemelelioğlu).

Finally, Lifeworld which is mediated to the operator through the picture, is also mediated to the audience. This time, the mediating picture is the broadcasted one. In the findings, I discussed that camera people empathize with the audience as they try to see the Lifeworld through the audience's eyes. Their framings are towards satisfying the audience and make them watch the program without disturbance as giving what they want to see on TV screens. Furthermore, the audience is transformed by the pictures created by the camera operator. They understand the context and the theme of the program by watching what is offered to them. They perceive reality through the eyes of camera people. In this regard, camera operators become prominent as the creators of the pictures. In the interaction between the audience and the picture, the camera operator is not a covered actor, she is the determinant of this mediation. Thus, this thesis proposes new perspective for

communication studies by examining the camera operator as the creator of the message and placing her at the very heart of communication. As explained in the literature review, phenomenological research in communication studies is mainly interested in the embodiment of the image (Sobchack, 1992; 2004; Marks, 2000). I could only reach Albright's study (2011) concerning the embodiment of the camera operator. In his study, Albright underlines the bodily movement of the operator and its relation to the image. In this regard, he emphasizes the creating role of the camera person in image production. The picture is broadcasted or screened to the audience through the body of the camera operator, which opens a window to what is 'behind the curtain' as promoting the off-screen presence of the operator.

7.1.5 Camera Operating Practice Involves Flow Experience

According to Csikszentmihalyi (2008), flow is the optimal experience, in which the focus is on the goal, and there is no problem to be fixed or the person to fight against. In this flow experience, whole intentionality of the person is of or about the goal. In this goal-directed devotion, the person needs skills to continue the optimal experience and to maintain the flow. Csikszentmihalyi asserts that this skill is devoted through physical activities, and these physical skilled activities are towards overcoming the challenges that happen during the experience. This concentration and devotion to the goal creates a joyful experience for the person and after tasting this joy, the person wishes to experience it again, this is how the self grows. This description approximates Csikszentmihalyi's flow to the notions of embodiment and flow in the use that I examine in this study. Embodiment happens when the concentration is on the task and the problems are overcome through skilled practice. In this process, the affectional aspect is important as it increases the immersion of the operator in the Lifeworld. According to flow theory, the reward through overcoming the challenges is intrinsic and it is the satisfaction of the inner needs of the person (Csikszentmihalyi, 1988, 2008). However, according to my field studies, camera operator as an embodied being feels this satisfaction not only by executing

her inner creativity and initiative, but also making the interpersonal network satisfied with her performance. Embodiment in camera operating practice does not only happen in the singularity of the operator, but also in the collectivity of the crew.

Csikszentmihalyi (2008) also underlines, the skill and the challenge should match. The skill should be specific for the challenge, otherwise, the activity cannot be called challenging. Here, in addition to phenomenological approach, flow theory states something very precious about skill. The skill should meet the challenge. In this way, the attention and awareness of the practitioner is completely used by the related physical activity, which blocks any energy to leave the practice. Otherwise, either the challenge cannot be overcome because of the insufficient skill, or the skill becomes over-employed than it is required. In this regard, flow theory adds a new dimension to the notion of skilled practice. We cannot call the camera operator a skilled practitioner unless her skills are appropriate to overcome the challenges.

Flow theory sheds new light on the process of re-embodiment. Phenomenological approach explains in-between moments of embodiment and disembodiment as the pursuit of Dasein for reconnecting the equipment. Skilled practice is explained as using the skills and awareness to re-establish the embodiment. In both phenomenology and techniques of the body, embodiment moments have superiority on disembodiment ones. Their wish is to have a smooth flow in the task without any problem. However, as Mitchell (1988) mentions, flow theory promotes not only the solutions, but also the problems. It involves not only the embodiment moments, but also the disembodiment ones. Since the satisfaction and joy come from successfully overcoming the challenges, flow theory puts an emphasis on these in-between moments. Challenges stimulate skillful activities. They reveal the initiative and creativity in-between embodiment and disembodiment. These in-between moments are the source of generative process as camera operators' awareness are stimulated and they adapt themselves to the new situation while finding the most appropriate way to be immersed in the task again.

In this sense, flow theory offers that the skill in camera operating practice is not a mere skill, it opens an area for creativity that makes the operator let herself immerse into the flow in the use. In this process, not only does the equipment and the operator fade into the task, but also the Lifeworld becomes transparent as turning into the task itself. There remains nothing but the task. Therefore, flow theory offers an expansion for the embodiment processes. While skilled practice makes the notion of embodiment concretized for researchers, flow theory carries this skilled practice to a generative format, which helps us to understand how the challenge and skill match and how this coupling generates creativity.

7.2 Contributions of the Study: Towards Modelling the Complex Camera Operating

Holding a phenomenological approach to camera operating practice provided me not only some knowledge on the practice of other people but also an insight for my own camera operating experience. For example, both I and my colleagues, in an embodied practice, are not aware of our embodiments. Through this phenomenological approach, I could reveal my embodied moments and I could provide this thesis to my colleagues which may make them understand their embodiment processes. In addition, even though I could not uncover in my autoethnographic inquiry, ethnographic study exhibited me the sociocultural and sociopolitical use of cameras. Here, especially the influence of corporate context on operational use of cameras becomes important. This showed me that camera operating is not limited to individual experiences. It happens in an interpersonal network, but this network is constituted of not only by people but also by systems. In camera operating practice, experiences of camera operators are always related to other actants.

From phenomenological approach, camera operating practice in multicamera systems unfolds an extraordinary type of use through camera operators' perspectives, which distinguishes itself from many other use cases. Camera operating is not a singular manipulation of a product. It has more dimensions than manipulation and it

is more complicated than including a single product. As literature review, field studies and discussions above show that camera operating practice in multicamera systems is a ***complex operating*** of a professional and technical equipment; it has many dimensions that disperse among many actants. In this state of art, it is ***embodied***, it is ***skilled***, it *i*s ***mediated***, it is ***co-generative***, it is ***sociopolitical and sociocultural***, it is ***collective and situated***, and it is ***flowing.***

In this complexity, the aim of the practitioner is to maintain the task in an embodied way and consequently to achieve the picture that is to be broadcasted. The performance turns into an ***embodied flow experience***, in which the operator ***adapts***, ***cooperates***, and ***collaborates*** in a ***rapport***. Her experience is not something pre-determined, it is adaptive to the circumstances for the sake of the task and the picture. As discussed in findings, this rapport is spread over the practice. For example, camera operator performs her movements in her bodily coordination concerning all of her senses, in the coordination of her bodily movements with the camera movements as adapting to the environmental conditions, in the rapport with the camera crew, and in the rapport with the director and other members of the broadcasting crew. This rapport even achieves a collective embodiment, in which each member covers up the other's fault.

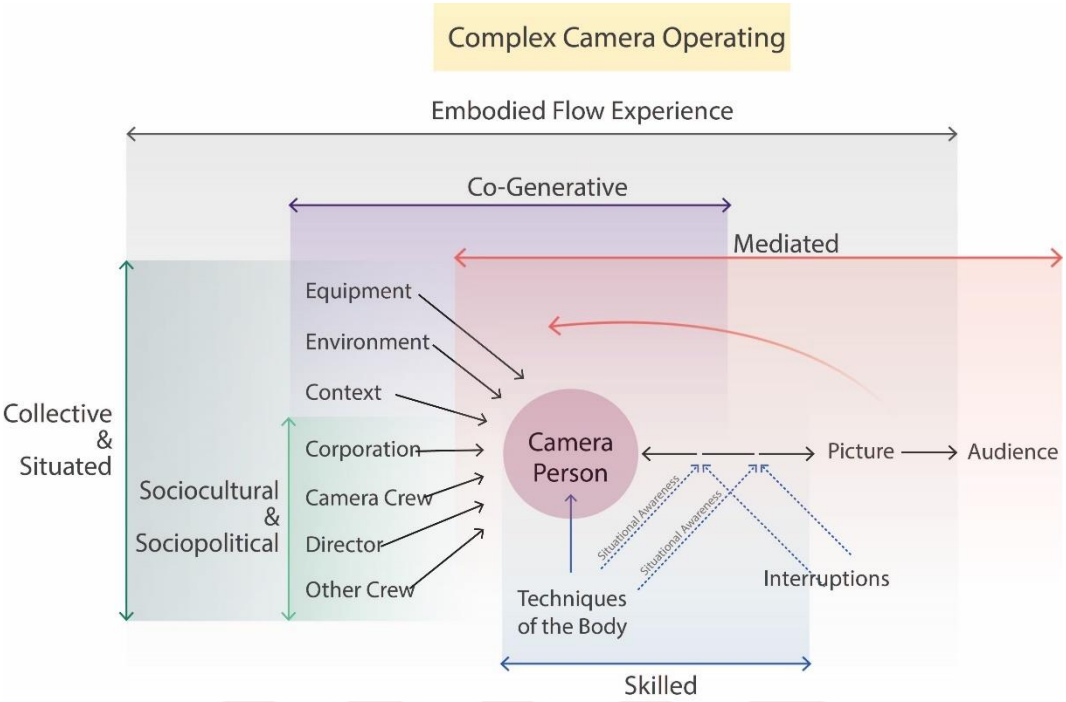


Figure 7.3 The model of complex camera operating (Figure: Researcher & N. Cemelelioğlu)

In this regard, this thesis tries to open a path towards modelling the camera operating practice as complex operating (see Figure 7.3) and proposes the key phenomena in this complexity as follows:

1) *Camera person* has the central and leading role because it is the *embodied flow experience* of the camera operator. Camera operator is the Dasein, the embodied being-in-the-world of this story. Her embodied flow experience is accompanied by the technique of the body and skilled practice, which shows the *skilled dimension* of complex camera operating model (see Figure 7.3 & Figure 7.4). Skilled practice is also employed to re-establish the embodiment. The flow can be triggered either by camera operator's initiative or creativity or director's commands. The initiative, even, can be rooted from the adaptive concerns of the camera operator as she tries to be in rapport with the crew, with the environment, and with the corporate context. (see Figure 7.4).

2) Complex camera operating model shows that the equipment, the physical environment, the shooting context, the corporation, the camera crew, the director, and the other crew members are major elements that the camera operator relates to. They altogether create the Lifeworld of camera operator with its materiality, intercorporeality, and organizational context as structuring the *sociocultural, sociopolitical, collective, and situated dimensions* of the model. In this Lifeworld, camera person interacts through her intentionality and embodies herself within the layers of the system, of the equipment and of the picture.
3) This embodiment and accordingly the flow are towards the production of the picture. In this process, all actants are effective on the flow and on creating the picture. In this picture generation process, all actants are in reciprocal relationships that leads them to transform each other as well as the picture. This *is the co-generative dimension* of the complex operating model.
4) As an artifact that is produced through the technology, the picture establishes the *mediated dimension* of the complex operating. The picture can be regarded as the output of the camera operating, but at the same time, this artifact is an input for the rest of the task. It enters the system repeatedly and affects the experience considerably. In other words, the picture provides feedback for the next cycles of flow experiences as mediating to the camera person, to the director, to the camera crew, and to other broadcasting crew. This is a recursive system, in which pictures are continuously produced and received (see Figure 7.4).

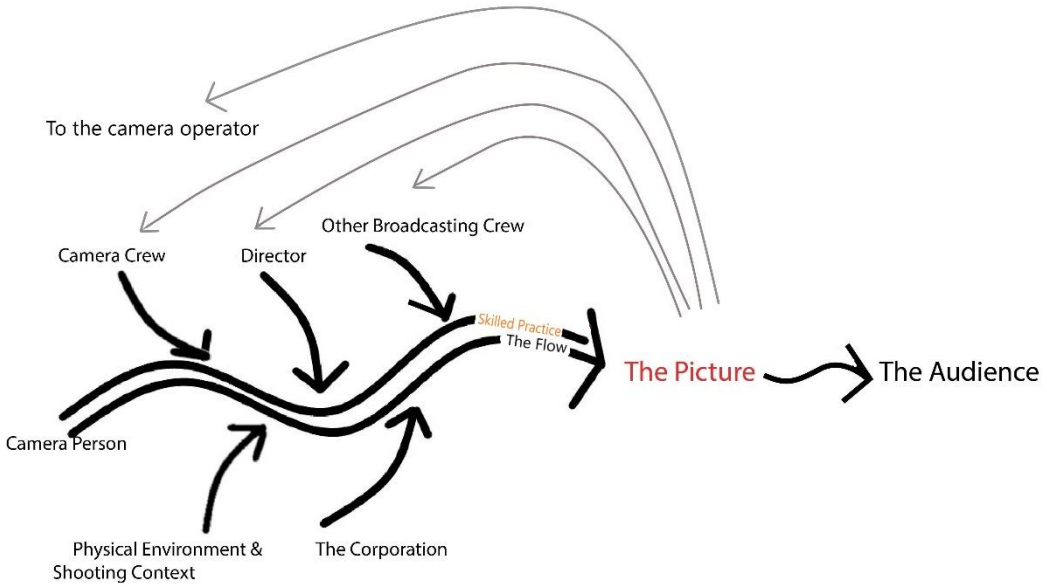


Figure 7.4 The embodied and skilled flow of a camera person, and picture mediated feedback among interdependant actants

With this attempt of modelling the camera operating practice as a complex operating, this thesis calls for special attention of designers. Designers need to apprehend this complexity and the layers that are effective in the system, in order to propose effective solutions to the system as reinforcing its *adaptive* nature. In this complexity, designers should see the practice in a holistic manner of phenomenology which promotes the relationality among the actants. As Liem (2007) states, creating a single entity would not solve the problems of complex environments which are equipped with advanced technologies. Thus, the needs of the systems are diverse and relational. Here, the systems thinking can be a guide for designers, in which they can acknowledge the relationships between the components of the system as bringing the whole system to the discussion instead of sticking only to the parts of the system (Pourdehnad et al., 2011).

In this regard, the actants in the camera operating process should be considered as reinforcing the adaptive and organic tendency of the practice. The user, the Lifeworld

involving the equipment and even the picture that is co-generated should be approached as understanding their adaptive natures. Current multicamera systems are also designed as holding this adaptation understanding to some extent. However, considering the findings, I can clearly assert that their perspective should approach to a more holistic view. For example, camera person can follow the broadcasted image via return button, which helps her to organize her pictures during the shooting. Nevertheless, she still cannot see the framings of her colleagues apart from the broadcasted one. Furthermore, even though most of the time one camera person is assigned only one camera, sometimes she needs to operate two cameras in the system. In these cases, since the intercom system is accessible only through the camera, camera person does not have any intercom access between leaving one camera and reaching the other one. This makes her lose the communication with the director. In this regard, any interruption in one piece of the system may cause a disruption in the whole system and the flow of the task. Thus, designers should think in a holistic and flexible way to sustain the flow of the task. They should focus on the whole context and its rapport instead of concentrating on the individual pieces.

In this approach, camera operator should be examined as a part of a network and hierarchical system, while the camera should be accepted as a part of product ecology including camera supporting systems, accessories and other broadcasting equipment related to multicamera operating. Besides, both the ways of sustaining and re-gaining the embodiment in various layers and pursuing the flow of the task can be an input in design processes as leading designers to consider design solutions for creating stronger embodiments and flows. Designers may offer better anticipations of embodied camera operations and insights for possible interruptions. These interruptions are the special areas that design solutions are required to establish new embodiments for camera operators. In this sense, this modelling attempt would serve designers as a guide for identifying their possible scope of work.

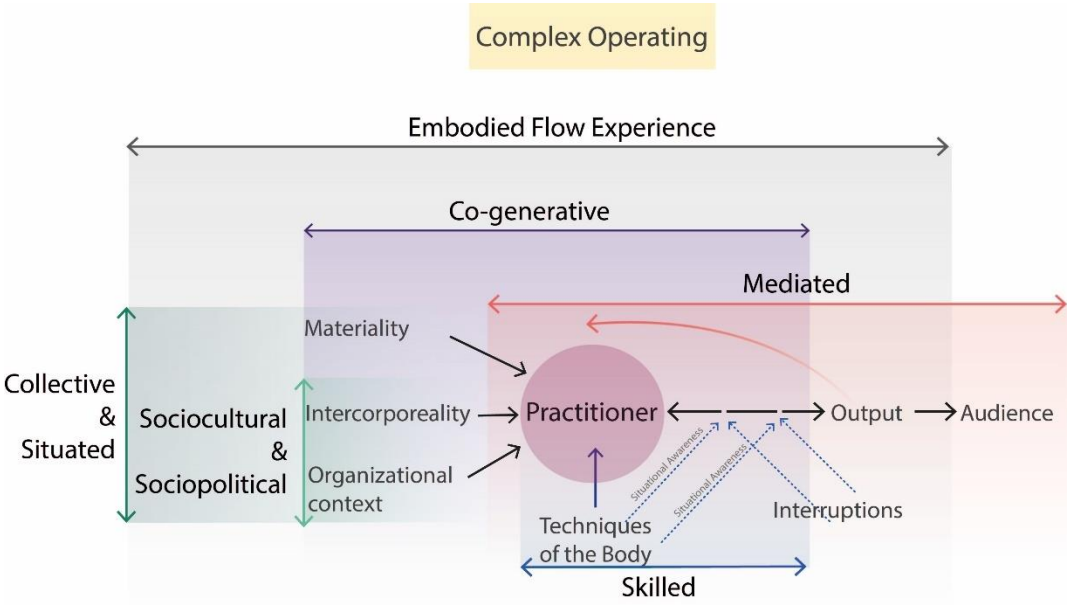


Figure 7.5 Generalized model of complex operating generated from the complex camera operating model (Figure: Researcher & N. Cemelelioğlu)

Moreover, as seen in Figure 7.5, this complex operating model for camera operating practice can be generalized to be investigated in other complex operating practices. In this generalized model, camera person is replaced by the 'practitioner'. In addition to the practitioner, the actants are the materiality, intercorporeality, and the organizational context of the practice. Moreover, the picture of camera operating practice is generalized as the 'output' in this new model. In this regard, to understand the *'complex operating'*, to identify its dimensions in a more detailed way, and to determine its possible criteria, other practices such as surgical operations and musicking in an orchestra might be examined through this model. Investigations on these practices might contribute to the development and improvement of the complex operating model. On the other hand, this complex operating model might help designers while tackling these practices. It might provide designers an insight as they approach these practices both in individual and collective manners. Even though the numbers or the properties of the actants, or the process of the flow experience would

be different, the model might help to analyze the complexity of the practices and to identify the actants that are involved quicker. Besides, the reactions to the problematics happening in the flow of the practice might be faster and with more accurate solutions.

Furthermore, modelling camera operating in multicamera systems might also serve for camera operators in different ways. For novice camera operators, it may provide a basic pedagogical resource to anticipate the way of their becoming experts and accordingly what they will face in the future. Therefore, the process, through which they internalize camera operating will be quicker, and with a better acumen. Without being limited only to their masters, they will have access to the state of art of embodied camera operation as a refined information coming from 23 participants. In addition to novices, this thesis may also serve expert camera operators as a guide for teaching camera operating. It would help experts to theorize their bodily practice and let them structure a teaching method above it. Furthermore, this model of complex operating may also provide an insight for expert camera operators by concretizing their embodied moments during shootings. As expected, field studies show, camera operators are not aware of their embodiment processes during camera operations. This study will enhance their understanding on their embodiment and routines of camera operating as they see themselves from outside. Operators may see what makes them expert and skilled as realizing the relationships between skills, expertise and being a camera person.

Consequently, this thesis offers a complex operating model for camera operating practice in multicamera systems. This model could be achieved because of the phenomenological approach of this thesis study. First, phenomenological approach made me examine the process from a holistic perspective, which helped me to identify the dimensions in this complex nature. Besides, phenomenology advocates against dualisms, which made me approach the camera person as a unity of body and mind and inseparable from the Lifeworld. In this sense, the collectivity and situatedness, and sociopolitical and sociocultural dimensions of the model emerged through this inseparable nature. In addition, phenomenology elevates the bodily

interactions. This complex operating model is pursued by the bodily performances of the camera person, which releases the technique of camera operating: this presents us the skilled dimension. Phenomenological understanding is also based on intentionality which accepts human being is of or about something in the Lifeworld, which leads us towards the relationality. Relationality in camera operating is around the picture and mediated through the picture as showing the mediating dimension of the practice. Moreover, the notion of embodiment itself is established on the flow of the task, which makes the practice involve the flow experience. In this regard, phenomenological approach revealed the complexity of camera operating practice as discussed above. This complexity is related to the multicamera system and emerged from camera operators' perspectives. Thus, any other theoretical and methodological approach or another perspective would indicate different versions of this camera operating model.

Besides offering this complex operating in the practice, this thesis also proposes implications in methodology and literature. I will mention these possible implications in the following section.

7.3 Implications of the Study

7.3.1 Methodological Insights of Autoethnography

As a practitioner, how may I write about my own camera operating process as well as my colleagues' as underlining the lived experience -the embodiment?

The question above is the key element that determines my position in this thesis study. Although design studies are familiar with research through design or research with design, this study may provide information from the user's perspective. Of course, there are user studies that focus on user's experiences or designers' attempts of using specific products in the research process. However, in case of this thesis, the user becomes the participant and the researcher at the same time, and in the

natural context as the professional practitioner of the task. In this sense, as the camera operator/participant on location and the researcher in the field, I experienced all the roles simultaneously.

During my operating camera, I revealed my own embodied and disembodied moments together with my skilled practice. In this regard, I had the opportunity to access the first-hand information of the user -myself. This first-hand information is crucial because it covers my instantaneous bodily reactions to the circumstances as well as my interpretations, opinions, and feelings on this concrete action. Besides, this information also involves my reasons to follow that bodily experience as well as the consequences of those actions. In addition to this individual aspect of my experiences, I also give information on my embeddedness in the collectivity of the multicamera system as declaring my roles in the camera crew and broadcasting crew, while also stating the relationship between my bodily experience and its extensions in the subculture of camera operating at TRT. Therefore, conducting an autoethnography as a researcher and the practitioner simultaneously opened ways for understanding a lived experience of a user in her own Lifeworld including the materiality and the interpersonal relations from a first-hand perspective. This first-hand information also creates basis for the ethnographic study, in which I researched the lived experiences of my colleagues. It would be a different study if I researched the lived experience of my colleagues without consulting my own experiences. Furthermore, it would be a different study if I were not a camera operator and I researched lived experiences of camera operators at TRT. Thus, positioning myself as a researcher-user contributed to this thesis a direct data of operation while I am embodied in the system, with the equipment and with the picture, and while I pursue the task in a skilled way. Consequently, this thesis offers an autoethnographic approach to collect lived experience of the user-researcher in the professional context of the practice.

7.3.2 Implications for Design Literature

This thesis stands next to the studies of Sarah Pink, Tim Ingold and Nick Crossley in terms of bringing phenomenological account and body techniques together. When design literature is considered, even though they were examined separately, phenomenology and body techniques and accordingly skilled practice were hardly mentioned together. In this state of art, this thesis broadens design literature as tackling phenomenology and body techniques in the same arena while covering a professional operation process of a technical equipment -the camera.

Within the design literature concerned with phenomenology and embodiment, this thesis expands the scope of embodiment with the help of the theoretical background including techniques of the body and skilled practice. This thesis tackles the notion of embodiment from both ontological and practical ways. This study says that embodiment is the way of camera operator's being in her Lifeworld, it is the state of Dasein as being-in-the-world. It is the way that person manifests herself as her being. In addition, this thesis also states that the being of equipment is related to the being of operator. The embodied operator stays there with the handy being of the equipment. As soon as the seamless interaction is established between them, the equipment functions aligned with its 'in-order-to', and the operator manipulates it to pursue the task as embodied. This thesis stands next to Hummels and Levy (2013) and Van Dijk and Hummels (2017) in terms of the holistic approach that they hold, but it goes further and scrutinizes the notion of embodiment through a technique of the body, which makes it materialized easier. As the field studies show, the more the operator sediments the technique through skill, tacit knowledge, and expertise, the easier she becomes embodied, and the easier she re-embodies in case of interruptions. Therefore, in the scope of this thesis, it would be difficult to explain the notion of embodiment only by phenomenology. A perspective of techniques of the body constructs an enriched understanding of embodiment in camera operating practice.

7.3.3 Implications for Camera Operating Literature

Camera operating practice has been investigated in operating manuals which provide information on the descriptive explanations of broadcasting processes. As can be seen in Chapter 4, these manuals aim to give operational instructions to introduce the scope and the responsibilities of broadcasting crews. Therefore, their interest and focus are not on camera operator and her bodily movements. We cannot see the intentions, aims, feelings and decision-making processes of camera operators in those manuals. To achieve this kind of information, I consulted phenomenology. Apart from descriptions of the phenomena that construct the camera operating practice, this thesis offers the interactions and experiences among these phenomena.

When I review phenomenology and camera operating in the literature, I mostly encounter the phenomenology of the image (see Sobchack, 1992; 2004; Marks, 2000), which involves the embodiment processes of the pictures or the embodiment processes of the audiences that are stimulated by the visuals. In communication studies, it seems that the picture is the key element. I understand this approach because even in my research, all interactions and experiences are towards creating an aesthetical and broadcastable picture. However, my focus is not on the aesthetics of the picture, but on the bodily technique which produces that picture. This thesis expands the literature on phenomenology and camera operating towards camera operators' perspectives as enquiring the stories behind the scenes.

7.4 Limitations and Further Studies

Limitations

In autoethnography, I limited my study to news and talk show programs. Recording my voice as talking on my bodily experiences and operating the camera as focused on the task simultaneously, could only be maintained in relatively static programs when compared to music programs and sports games. Music programs and sports games involve faster camera operating processes with more framing options and in

more crowded crews. Therefore, they offer different embodiment and disembodiment moments in terms of the embodiment layers that were discussed in the findings. Although not covering those experiences in my autoethnographic is a limitation, I tried to overcome this by expanding my interviews and observations to involve various program contexts.

Furthermore, I was limited while conducting participant observations in terms of planning my research considering the program contexts. I did not have any control on the program types that supposed to be shot at that time period. Therefore, to arrange participant observations, I followed the working schedule that were sent to camera people twice a week. This situation prolonged the duration of field studies, because, for example, I had to wait for a steadicam operator to be assigned a program, in which he is supposed to operate steadicam. Or, I had to wait for my participants to be assigned in different program contexts to cover each context sufficiently. However, it still did not happen, and I could observe only two participants in sports game.

Besides, concerning participant observations and post-observation interviews, generally the participant did not know which camera he was going to operate. Except for steadicam operators, cameras were assigned to camera people just before the shooting by the head of the camera crew. Thus, I did not have any prior information on it. Because of this, my observations were not equally distributed among camera supporting systems. For example, I could observe only one participant while using a hand-held camera. In this sense, the data from participant observations does not broadly cover hand-held camera operating.

Moreover, I covered camera operating practice in multicamera systems only in Ankara. It was not possible for me to travel outside the city to follow them on business trips. This limited me while collecting their journey experiences. Because for camera operators, travelling together is important for preparing themselves to the shootings or for exchanging feedbacks after the shootings.

Further Studies

First, in order to investigate the embodiment layers in professional camera operating practice in a deeper manner, single camera operating practices of news gathering, and documentary-movie shooting can be studied. At TRT, these practices are separated according to their goals and priorities; and their operators are equipped with different skills. Thus, these camera operating practices would offer new dimensions of embodiment and let us understand the practice in the organizational context from a different perspective. Besides, non-professional camera operating can be studied to fully document the practice of camera operating from camera operators' perspectives.

Camera operating practice in multicamera systems can also be investigated from directors' perspectives, which can expand the territory of the practice and re-define the embodiment process among interpersonal networks. In this regard, especially the hierarchical interaction between camera operator and the director may evolve and produce new extensions. This is because, directors may prioritize her own intentions instead of camera operators' initiatives or creativities. Therefore, the hierarchical interaction would be more prominent or stronger.

Furthermore, technological advances in camera operating practice and the history of cameras and related equipment can be another subject for further studies. Even though the participants have mentioned the importance of technological advances in camera operating, in scope of this thesis, it takes a small place which was not underlined in the findings. Therefore, it would add another perspective to the embodiment layer with the equipment. In addition, it would shift the importance from the operator to the equipment, to discuss it alongside the design of the equipment throughout history.

In addition, as technology advances, this inseparability of human and the environment may manifest itself in new ways. We may discuss the more immersion of camera operator into the equipment in the Lifeworld. Here, I mean the autonomous camera systems in camera operating practice. These autonomous

systems might offer a version of embodiment, in which there is no clear separation between the operator and the equipment. Here, we might start to think of embodiment of non-humans, which may open an area of investigation through both postphenomenological account and 4th wave of HCI.

Moreover, video cameras are not the only equipment for creating images. Cameras that are used for medical purposes such as surgical endoscopic cameras; and other technologies using optics and lenses such as microscope and telescope can be examined in further studies. Tackling these imaging technologies can expand our understanding of technology mediation which makes the invisible three dimensions visible two dimensions.

Finally, there are other practices involving sociocultural and sociopolitical aspects of embodiment such as music playing in an orchestra or making a surgery with a medical team. In these practices, the practitioner has a relation both with her musical instrument or a surgical tool, and with other people that they pursue the task together. The practice itself is shaped around these relations. Therefore, it is important to investigate these collective and collaborative aspects to understand the use cases of so-called equipment. Researching these kinds of practices might also contribute to social phenomenology by examining it in real use cases.

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APPENDICES

A. In-depth Interview Questions and Flow of the Interview

RÖPORTAJ AKIŞI

1. KISIM: Giriş

S1: Kameramanlığa nasıl başladınız?

- İlk kamera kullanım deneyimi
- Eğitim

S2: Stüdyo kameramanlığı nedir? (Stüdyoda kamera kullanımı deneyiminden bahseder misiniz?)

- Çoklu kamera sistemi
- Kamera destek tipleri
- Diğer kamera kullanım pratiklerinden farkı*
  - ❖ Avantaj
  - ❖ Dezavantaj

* Burada ekip içi çalışma durumundan bahsedebilir.

2. KISIM: Ekip içi ve belirli ortamda çalışma süreci- Lifeworld

S3: Bir çekim hazırlık süreci nasıl gerçekleşiyor?

- Teknik kontroller
  - ❖ Ekip içi hiyerarşi
- Reji toplantısı

S4: Gerek hazırlık gerekse çekim sürecinde tüm çekim ekibiyle nasıl bir etkileşim var? (Stüdyo kameramanı olarak diğer çekim ekibiyle olan iş bölümünü anlatır mısınız?)

- Işık
- Kamera kontrol
- Resim seçici
- Teknik yönetmen
- Ses
- Stüdyo Şefi
- Zorluklar

S5: Yönetmenle olan etkileşimi anlatır mısınız? (Karşılaştığınız olumlu/olumsuz durumlar nelerdir?)

- Olumlu
- Olumsuz
  - Yönetmenin yetersizliği
    - ❖ Yönlendirme- komut
    - ❖ Hazırlık- kamera kartları
  - Yönetmenin egosu
  - Yönetmenin önyargısı
  - Kameramanın önyargısı

S6: Çekim esnasında kamera ekibi içerisindeki etkileşim nasıl gerçekleşiyor?

- İş birliği
  - ❖ Montaj düşünme (return tuşu)
  - ❖ Empati
  - ❖ Arkadaşını tanıma
- Refleks
- Koordinasyon

3. KISIM: Kamera Kullanımı ve Beden İlişkisi- Embodiment

S7: Kamera ve aksesuarlarının kamera kullanım deneyimine etkilerini de düşünürsek en rahat kullandığınız kamera/ürün? En keyif alarak kullandığınız kamera/ürün? En zorlandığınız deneyim (Fotoğraflar!)

- Farklı destek sistemleri
- Kamera hareketleri
- Kamera pozisyonları
- Yazılımsal-donanımsal özellikler
  - Return
- Problemli ürün
  - Kotarma/idare etme
- İyi/kötü deneyim

S8: Bu kamerayı kullanırken size en kolay gelen şey ne? Bedeninizin zorlanmadığı, rahatlıkla yapabildiğiniz hareketler? Sizi zorlayan durumlar? İşinizi daha da kolaylaştıran neler olabilirdi? (Fotoğraflarla birlikte sor!)

- Beden-kamera koordinasyonu
  - El-göz-kulak
  - İnterkom
  - Kompozisyon-kamera hareketi
- Fiziksel zorluk
  - Uzanma-çömelme
  - Uzun süre bekleme
  - Ağırlık
  - Titreme

S9: İyi bir kameraman kimdir? Kötü kameramandan nasıl ayrılır?

- Deneyim
  - Öngörü-tahmin
  - Uzmanlaşma
- Yetenek
- Refleks
- İnisiyatif

4. KISIM: Bitiriş

S10: Bu çerçevede anlatmayı gerekli gördüğünüz başka bir şey var mı?

B. AEIOU Observation Sheet

AEIOU- OBSERVATION SHEET

ENVIRONMENT/OBJECTS

*program adı, saati, hangi kanal için?

*hangi stüdyo?

* kaç kamera kullanılıyor?

* kaç kameraman çalışıyor?

FLOOR PLAN

USER

* hangi kamerayı kullanıyor?

* yaş

* kameramanlık deneyimi

* belirgin fiziksel özellikler

INTERACTIONS

* kimlerle etkileşim halinde? (Yönetmen, spiker-sunucu, kamera kontrol, resim seçici, teknik yönetmen, sesçi, ışıkçı, dekoratör)

* ürünle etkileşim? (handle, vizör, kulaklık, hardware, software)

AEIOU- OBSERVATION SHEET

INTERACTIONS/ ACTIVITIES

C. Field Study Quotes in the Original Language

[1] Mesela adam pedestal alıyor, kameramana sormuyor; vizör alıyor, kameramana sormuyor. Bizde de biraz ihale kanunu var falan. Hepsine de bir şey diyemiyorsun (…) Mesela ilk HD kameralar geldi, son teknoloji. Üstüne siyah tüplü vizör getirdiler. Hiçbir şey gözükmüyor, çok küçük bir de. Bir kameraman abimizin emekleri sonucu, gitti yukarı ile konuştu (…) en son aldılar. Böylece biz de daha rahat çalışmış olduk.

[2] (…) Sonuçta ne yapıyorsunuz, yaşadığımız tecrübelerden örnek verirsek. Sanatçı geç geliyor ya da provalar geç yapılıyor. O zaman siz ne yapıyorsunuz çekime geç başlıyorsunuz, saatlerce beklemişsiniz, yani en verimli olacağınız zamanı kamera başındaki zamanı o planda öldürmüşsünüz. Yani o bedenen ve kafaca verimli olacağınız şeyi, Öncesinde azar azar azaltıyorsunuz ve kamera başına geçince dene keyfiniz kalıyor ne enerjiniz kalıyor. Yani bu planlama bence çok önemli. Bu planlamayı biz hala oturtamıyoruz. Bu bizim dışımızdan kaynaklanan bir şey de olabiliyor, Sanatçıdan olabiliyor Yeri geliyor bizden de olabiliyor, Tekrar geri dönüşler, her bir birimden olabiliyor. Sonuçta elektronik bir aksam kullanıyorsunuz. Ama sonuçta planlı programlı olmak Bence güzel bir şey. Böyle de olmalı. Gece geç saatlere kadar Yayın yapılmamalı.. Bu kurum için de, sonuçta devletin şeyini kullanıyorsunuz, Yazık günah.

[3] Aynı şekilde interkom kontrolünü de yaptım, gövde kilitlerine baktım. Listenin en altında ben olduğum için bunları kontrol etmenin benin görevim olduğu gibi bir algı var, aslında yazılı bir kural değil ama şimdiye kadar işlemiş bir sistem.

[4] (…) Jimmy jibin ineceği noktaya göre kendimi ayarladım çünkü Jimmy jibin o monitörü kullanması gerekiyordu (sahnedeki monitör). O monitörü kullanabilmesi için de benim ona biraz alan açmam gerekiyordu Normalden merkezden biraz daha 1 metre kadar sağda çalıştım.

[5] Hatta bazen birbirimizin vizörüne bakarız. Ben mesela senin vizörüne bakarım, çaktırmadan (…). Sen de dar çalışıyorsun ben de göğüs çalışıyorum, yönetmen uyuyor. Biz öyle deriz, "yönetmen uyuyor". Ben hemen çaktırmadan şeye çıkarım (genişe), hani ne sen bana bir şey söylemişsindir, ne ben. Ya da sen bunu yapabilirsin. Ya da bakarım çok fazla genel var, ben bir detay yakalarım. Ya da senin detay yakalaman için ben mesela seni hani "ileri doğru git".

[6] Sen yarıştın mı bilmiyorum, ben yüzme yarışı yaptım, yüzme yarışında derler ki, şeylerde de var atletizmde, seni çekecek bir insan olsun, yani seni hareket ettirecek, seni koşturacak yanındaki, rekabet ettirecek biri. Kamerada da öyle. Arkadaşlarınla uyum sağladığında, "ooo çok güzel bir görüntü veriyor, dur ben de vereyim, oradan da güzel gelsin"... Böyle uyumlu çalıştığınız zaman çok güzel şeyler çıkıyor.

[7] (…) senin kafanda bir plan var, yapacaksın, harekete şuradan gireceğim şu şekilde bitireceğim diye planlıyorsun, tam hareketi yaparken hareketin yarısında yönetmen senin kulağına şöyle yap diyor, bu sefer oraya döndüğün zaman tamamen işler değişiyor.

[8] Özellikle yönetmen "geniş geniş" dedi ama onun geniş demesi… Hem onu görmek istemiyor hem de geniş resim istiyor. O da çok mümkün olan bir durum olmuyor.

[9] Mesela diyelim ki iyi bir diyafram ayarlanmaması veya iyi bir beyaz ayarı yapılmaması direkt olarak sizin vizörünüze kadar etkiliyor ki görüntünüzü de etkileyecek bir şey.

[10] Öğlen güneşi, kameraya otomatik diyafram versen 22 diyafram verecek, biz çalışıyoruz 2 diyafram ile. Yani bu adalet mi insanlık mı yani. Dünyada yani gülerler bize.

[11] Örneğin bir futbol maçına gittiğimiz zaman her Kameranın orada bir görevi var ve bir rolü var. Pilot kamera hiçbir zaman yakın Detaylara girmediği için olayın büyük fotoğrafını gösteren bir kamera. Yakın çalışan kameralarda da pilot altında ya da detay kameralarda o hikayenin içindeki aktörlerin durumlarını daha yakından seyirciye göstermesi için. Örneğin bir somut faul olayında bir faulü yapan kişiyi gösteren kamera var Bir de faul yapılan kişiyi gösteren kamera var. Şimdi bunlar kendi içinde bu iş bölümünü en baştan doğru yapmazlarsa işleyiş sırasında kimin kimi göstereceği konusunda bir karışıklık ortaya Çıktığında tam bir kaos ortamı ortaya çıkar. İşte buradaki iş bölümünden kastettiğim bu.

[12] Bedenimizin etkisini... en fazla Efor sarf ettiği şeyler Müzik programları halk konserleri. Orada ne bileyim bir festivallerde falan… Yani dediğim gibi programın içeriğine bağlı. Eğer bir rock konseri veya hızlı bir parçanın rejisinde müziğin ritmine uygun Jimmy jib kullanımında çok hızlı hareket yapılıyor ve o zaman da vücudumuzla dediğim gibi o çapraz ayak hareketi ve vücudumuzun salınımı diyeyim onunla uyumlu olmak zorunda. Çünkü çok hızlı bir hareket yapıyorsunuz, öyle hareket yapınca vücudunuz da ona uygun olarak hızlı hareket etmek zorunda.

[13] Bütün stüdyonun ortasına elma portakal döküldü. O gün işte onlar tanıtılacak mı artık… Yöresel program formatı olduğu için, döküldü. Ben direkt interkomdan yönetmene ben bu şartlarda çalışamayacağımı söyledim, ki o inisiyatif de bana ait. Çünkü ortam şartları... her yerde elma portakal var, engel var.

[14] Yayından önce zaten kablolar yerde mi yapışmış mı veya bizim geçişimizi engelleyecek bir şey varsa yayından önce ona müdahale ediyoruz. Kamerayı herhangi bir şekilde zorlayacak aksesuar veya bir dekor varsa onu da değiştirtiyoruz.

[15] Erzurum Kış Olimpiyatları'na gitmiştik. Orada acayip bir kış vardı yani. Bir bağlantı vardı, spiker Haber'e bağlanacaktı, tek kamera. İşte kamerayı kurduk resmi

verdik bağlanacaklar. Tipi var, tipiden ben ne sunucuyu görebiliyorum ne vizörü görebiliyorum, öyle bir tipi var. Acayip de soğuk var, titriyorum yani, kamerayı tutmam imkanı yok, tutarsam kamera da zangır zangır titrer. Öyle bir titreme. O şekilde bir girdiler canlı yayına, çıktılar. Ben ne oldu ne bitti bilmiyorum, sunucuyu görebildiler mi, ne resim aldılar.

[16] (…) Çünkü rüzgar esiyor. Ben normalde sol tarafa doğru hareket edeceğim. Ama verdiğim güç ve o baskı beni daha diğer tarafa doğru hareket ettiriyor. Yani o çevresel faktörü de o anda düşünmeniz gerekiyor. Anlık düşünüyorsunuz… Bildiğiniz gibi demir yükü olan bir şey, ağırlıklı bir şey. O sizin kontrolünüz dışında çıkarsa çevreye verilebilecek zararı düşünemezsiniz. Her zarar verebilir. Birkaç insan üzerine düşebilir.

[17] Jimmy jib'de 40 50 metrelik bir alana sahipsin, Her yerden bir şekilde ulaşabiliyorsun. Zaten Jimmy jib onun için yapılmış, Normal kameraların ulaşamayacağı yerlere ulaşsın diye yapılan bir alet. Asıl ilk mantık bu, yani o açılara nasıl ulaşılabilir,

[18] Jimmy jib'de açık söyleyeyim mi, hareketsiz görüntü, kullanan için tuhaf geliyor. Yani O zaman normal bir kamera da olabilir. Hani Jimmy jibin özelliği… Yani durmak istemiyorum, Yavaş da olsa bir şeyler yapmak istiyorum, programa en azından dinamizm katayım diye.

[19] Şimdi, jimmy jibe bakmak zorundasın, monitöre bakmak zorundasın, o 9,5 metrelik demire bakmak zorundasın, kameraya bakmak zorundasın, oradaki objelere çektiğin objeye bakmak zorundasın, hem bunu monitörden bakmak zorundasın hem dışardan bakmak zorundasın. Aynı zamanda altta stüdyo şefi var ona bakmak zorundasın çarpmamak için, fotoğrafçı var çarpmamak için ona bakmak zorundasın, insanlar gelip geçiyor çarpmamak için ona bakmak zorundasın. Rayın üstünde geliyorsun gidiyorsun, rayın üstünde kablo üstüne gelmesin de kesilmesin diye ona bakmak zorundasın. Ve bu sırada hem o direğin hareketi hem kamera hareketi hem zum hareketi hem de elinle hareket yapıp, bütün koordinasyonu sağlayıp tek açıdan göze batmadan bir hareket yapmak zorundasın.

[20] Onu üzerine giydiğinde şöyle: Çok daha rahat hareket etmeye başlıyorsun, kamerayla normal pedestalli bir kamerayı kullanırken yapacağın hareketlerle bunu kullanırken yapacağın hareketler çok daha fazla oluyor. Seninle birlikte hareket ediyor, yaptığın bel hareketleriyle tamamen alakalı bir şekilde yani aslında senin bir parçan gibi olması gerekiyor. Zaten ilk kullanmaya başlayan arkadaşların kullanamamasının nedeni üzerinden direk cihazın uzaklaşması. Küçük bel hareketleriyle o cihazı kendine doğru çekiyorsun. Yürüme şekline göre de kendine… cihazla senin arandaki o mesafeyi aslında bel hareketlerinle sağlıyorsun. Ondan dolayı da cihaz senin bir parçan gibi olmuş oluyor.

[21] Yani dediğim gibi tüm dünya kayboluyor ve senin sadece o yaptığın iş oluyor.

[22] Jimmy jibe hükmetmek kafanda düşündüğünü direkt Jimmy jibe yaptırabilmek demek. Yani ben kafamda beynimde ne çerçeve düşünüyorsam onu Jimmy jibe yaptırabildiğimi düşünürüm. Direkt onunla alakalı. Ben kafamda bir plan belirledim, atıyorum sahnenin yukarısından geldim, buradan gideceğim, işte sanatçının yüz planına geleceğim oradan da boşluğa çıkacağım. Bunu, kafamda yapmak istediğimin aynısını jimmy jibe de yaptırabiliyorsam hükmediyorum demektir. Yaptırıyorum, yaptıramadığım zamanlar da oluyor (…) Ama dediğim gibi hükmetmek direkt ona... atıyorum o şaryosunda giderken sallamadan, dutchını eğmişsin düzeltiyorsun, pan yapıyorsun tilt yapıyorsun netlik yapıyorsun. Bunların hepsini kombine yapabiliyorsan hükmediyorsun demektir.

[23] (…) yani stüdyo kamerası stüdyo kameramanının enstrümanı.

[24] Şimdi dolayısıyla kameramanın da elindeki enstrümana yani kamerasına çok hakim olması lazım. Yani en küçük bir vizördeki bir dalgalanmadan, ne bileyim işte sesteki bir kesintiden, ne bileyim diyaframın ne kadar olduğundan tut da her şeyi daha gördüğü anda algılayabilmesi lazım. Mesela bir canlı yayında bunlara müdahale etme şansın yok. Canlı yayın esnasında bu arızaları gidermek zorundasın ya da kullandığın kamera devre dışı kalacak.

[25] O cihazın yapabileceği pek çok şey varken siz onu yanlış bir yere konumlandırır ayarlarını yanlış yapar ışığı yanlış almasını sağlarsanız. O zaman onun konuşabildiği dilin çok altında bir dilde konuştuğunuz için frekansı yakalayamazsınız ve yaptığınız iş kötü çıkar. Ve buradaki suç o cihazın olmaz sizin olur. O yüzden öncelikle o cihazın yapabileceklerini öğrenip onları maksimum verimde kullanabilmek için iyi bir altyapı olması gerektiğine inanıyorum. Aksi takdirde aynı dili konuşmanız mümkün değil.

[26] Yani hem iyi kullanıp hem ayarını düzgün yaptığın zaman cihaz sana her şeyi sağlıyor aslında.

[27] (…) sen bunu keşfetmeye başlıyorsun. Bunlar kurslarla falan anlatılan şeyler değil, sen cihaza hakimiyet kazandıkça o da kendini anlatıyor Aslında cihaz da kendini anlatıyor, şöyle tutarsan şöyle olur böyle olur.

[28] Bu cihazın bu yetenekleri varken niye kullanmayayım? Evet tilti ben kullanmayacaksam, sadece pan kullanacaksam düşme dengesini artırırım, cihazı çok daha stabil şey yaparım. Mesela maçlarda seremoni... Seremoniyi düzgün yapmak istiyorsan bu şekilde düşme dengesini yapıp ağırlığını şey yaparsın. Ha yok, ben kullanırken tilt yapmam gerekiyor diyorsan, hani bir portreye doğru çıkacaksın veya bir şey yapacaksın, o zaman o dengeyi 1001 1002 1003 değil 1004 1005 de yapabilirsin, daha da yumuşamış olur. Ama titreşimler de o kadar belli olmuş olur.

[29] Aslında netliğin hangi noktada olduğunu gösteren bir imleç var vizörümde, o menüden ayarlanabiliyor. Ben ayarlamadım ama başkası ayarlamış daha önceden. O

benim için aslında kurtarıcı çünkü mesela spikerin belli bir noktada netliği diyelim ki 44, daha yakına geldiğinde 60 falan oluyor mesela, o aradaki değer tahmin edip netlik halkasını ona göre çeviriyorum, spikerin hareketini izleyerek.

[30] Zum kolunun nasıl kullanılacağını her kameraman bilir. Sola çeviriyorsun ileri gidiyor sağa çeviriyorsun geri geliyor, bilmem ne. Ama "çok yavaş bir zoom yap" dediği zaman, onu parmak hareketi ile tam kontrol edemeyeceğini, zum kolunun üzerine sarılıp onu yaparsan daha kolay yapabileceğini biliyorsan veya ne bileyim zumun hızını azaltarak yapabileceğini biliyorsan cihaza hakim olduğun için daha güzel görüntü verirsin.

[31] Tabii yaptım çünkü benim de benim boyum kilom neyse ilgim reflekslerim fiziksel kabiliyetim, bunlar hep kişiye özel şeyler. Kamera üzerinde de kişiye özel durumlar için ayarlar yapılabiliyor. Bunlar bırakılmış. Tek tip bir kameraman düşünülmediği için birçok kameramanın özelliğine göre belirlenebilen ayar düğmeleri var.

[32] Ben kendim kolaylık açısından şunu yaparım, yani şu… netlik halkası neredeydi… netlik halkasına şuraya taş veya herhangi bir şey bağlarım elimin altında, oraya gittiğimde kalenin net olacağı yere referans koyarım. Bir tane de çok ekstra olmak üzere... Ben bir noktayı belirlerim bir de numaratöre bakarım ama… Verebildim değil mi örneği, elimi böyle getirip şu baş parmağımın altında Kale net olacak şekilde çalışırım (…) Ama bunu hani tam orta sahada oturuyorsam iki kale için geçerli oluyor, tam kamera 3 pozisyonunda oturuyorsak 1 tarafta oturuyorsak 1 nokta için geçerli oluyor. O da ne sağlıyor bana, öbür tarafa gittiğimde bir yeri aramıyorum. Oraya getirdiğim anda orası net.

[33] Robotta Joystick hakimiyetinin ve tepkilerinin her ne kadar senin mekanik olarak pan tilt yapman gibi olmadığından dolayı o etkileşimin az olur.

[34] Bir de robotu eğer kurduğun yer çekim mekanında sen dışarıda olduğunu düşün kullanım ünitesinin dışarıda olduğunu düşündüğünde de, mekanı göremediğinden dolayı da önce gördüğün görüntüleri alıyorsun, ekstra gerçekleşen bir görüntüde, yandan birisi geldiğinde onu yakalayayım dediğinde, onu normalde içeride kameraman olarak gördüğün zaman, yandan baktığında görüyorsun onu hemen ona dönüyorsun. Robotta böyle bir şey söz konusu olmaz dışarıda konumlandırıldıysan. İçerideki görüntüyü başka bir şekilde görmen gerekiyor senin, ufak detayları göremezsin, böyle bir dezavantajı oluşuyor robotun da.

[35] (…) Omuz kamera insanın bedeni ile çok bütünleşen bir şey. Yani kendiniz oluyorsunuz. O anda sizin gözünüz değil, vizör oluyor, vizör gözünüz oluyor, vs. Diğerlerinde de öyle ama görece olarak belki farklı. Çünkü bir hissiniz var, kamera sizin bedeninize yapışık. Hatta ısısını hissediyorsunuz, ağırlığını hissediyorsunuz.

[36] Bu resimleri düşünürken o hareketler doğaçlama geliyor artık, ne gerekiyorsa onu yapıyorsun yani, daha önce de konuştuğumuz gibi bir hareket planlaması yapmıyorsun aslında, resim planlıyorsun.

[37] Ben resmin gereği, çok böyle elzem bir durum olursa çömeldiğim de olur. Yani çok yukarıda ben ön fon olarak bir şey kullanacağım, tam dikte mesela, zaten başka şansın yok o zaman.

[38] Yani sürekli bir aksiyon var. Ondan sonra, ben maçının kaç kaç bittiğini gerçekten hatırlamazdım, maçın bittiğini hatırlamazdım. Yani son 2 dakika derdi, ben şaşırırdım mesela.

[39] Dediğim gibi önceden cesur çalışıyordum. Ne bileyim pilot altında falan... Şimdiki gibi böyle aletler yok, normal kamera ile hep 2xte falan çalışıyorduk, mümkün olduğu kadar yakın çalışıyorduk yani. Hem risk alıyorduk, ama dediğim gibi o zevkli oluyordu yani, o riski almak da. O zaman diyorlarmış "A burada kesin M. var". Başkaları hani fazla da risk almıyor, o kadar yakına da girmiyor.

[40] (…) dans ederdim falan yani kameranın arkasında. Dans etmek deyince, belli oranda olayın içine hani hep söylüyorum, girmek… Dans etmek tabii abartılı bir şey olabilir ama, işi engelleyecek şekilde değil ama bir ritim tutturmak falan iyidir, size o zum yaparken kamera ile kayarken falan o ritim size aynı zamanda bir hız motivasyonu hız referansı olur. O açıdan da bence iyi bir şey yani müziğin ritmine böyle kendini adapte etmek.

[41] Sevdiğin bir parçayı çekerken sen oraya giriyorsun, bir bakıyorum ben kendim söylüyorum parçayı, kendimi içinde buluyorum.

[42] Bir müziğe konsantre olsan "Ya şu müzik çok güzelmiş" falan filan desen, müziğin havasına girsen daha ekstra çalışıyorsun. Mesela adam bir tane çok güzel uzun hava söyledi Türkçe. Ben orada hiçbir şekilde kopmadan çalıştım. Çünkü anladığım bir şey, havaya giriyorsun, müzik tutkulu bir şey, sana güzel duygular veriyor ve o duygu ile çalıştığın için yani duygusal-adam olduğumuz için duygusal insan olduğumuz için- kameramanlık adına konuşuyorum- ekstra bir şey veriyor.

[43] Elbette ki sevdiğin işe insan daha bir farklı yaklaşıyor, bu doğal bir şey yani. O kadar şey yaparım ki yani böyle vizörden bakarken -mesela klasik müzik çekerken, bir de eser de beni çok motive eder, çok sevdiğim eserler- böyle girerim vizörden, vizörün içinden girerim objektifin içinden o enstrümana yönlenirim falan, yani onun yanında hissederim kendimi. O açıdan makine benim için böyle vücudumun bir, bedenimin aynı zamanda ruhumun benliğimin bir parçası haline gelir. O zaman da şey yaparım yani, benim motivasyonum artar.

[44] Bu konsantrasyon dediğim gibi tamamen sevmekle odaklı. Yayına hazır olmakla, o şarkıyı hissetmek ile bunlar alakalı hep. Severek kullanan kişi her zaman

bunları hisseder. Belindeki ağırlığı da o an düşünmez, ayağına düşen ağırlığı da düşünmez, koluna düşen yükü de düşünmez. Bunun temeli bu bence.

[45] Steadicam çok keyifli bir cihaz. Ağır bir cihaz 30 kilogram falan var üzerinde. Tabii cihazı Üzerimize aldığımız zaman 30 kilo falan yapıyor ama inanılmaz keyifli, kullanımı inanılmaz keyifli. Tek kamera ile her şeyi yapabileceğin bir sistem.

[46] Yüksek kale ofsayttan da daha keyiflidir. Daha yakına giriyorsunuz, daha genişe çıkıyorsunuz, karşı kaleyi takip ediyorsunuz, her şeye yetişiyorsunuz. Sarı kart olayı oluyor, kavga oluyor, topsuz alanda müdahale oluyor hakemin olmadığı bir yerde; onu siz görüyorsunuz siz veriyorsunuz. Bu size keyif veriyor. Normal yayında olmayan bir şeyin sizden verilmesi hakikaten keyif verici bir şey.

[47] Benim en keyif aldığım şey eğer çok güzel resimler verirsem, iş bittiği zaman o yorgunluğunuz falan bir anda bitiyor. Beni en çok mutlu eden şey o, güzel resimler verip güzel çerçeveler verip iş güzel olunca bütün yorgunluğum bir anda bitiyor. Resim, çerçeve, müzik, kompozisyon falan hepsi güzel olunca iş güzel çıkınca çok keyif alıyorsun. Işık çok güzel, ışık var derinlik var resimde bakıyorsun (…).

[48] Bir kere mesleği sevmek en önemli nokta burada bence. Verdiğin her kareden mutlu olmak çok önemli bir nokta. Bir de verdiğin yayını milyonlar izliyor. Sen tabii şimdi... 5 kamera örneğin bir yayın yapıyoruz, senin çerçevenin daha çok yayına çıkması daha da mutlu ediyor kişiyi.

[49] Bizim çalıştığımız birimde hızlı ve doğru resim yapmak çok önemli.

[50] Biz sadece işin kompozisyon kısmındayız görev kısmındayız refleks kısmındayız.

[51] Teknik bilginin yanı sıra zaten kameramanlığı bana sorduklarında estetik kaygı, stüdyo kameramanlığını özellikle estetik kaygı olarak hep nitelendirdim kendimce. TRT'nin içerisinde gördüm kamera gruplarının farklı uzmanlık alanları gerektirdiğini (…) Estetik kaygı dediğim de o, bu işin temeli resim. Son kullanıcılar, özellikle stüdyo kameramanları kaliteli resimle mükelleftirler.

[52] (…) Bize verilen çerçeve içinde şu anda 16/9 çerçeve içinde çalışıyoruz, bütün dünyayı o 16/9 üzerinden aktarmamız gerekiyor Bunu yaparken de o çerçeve içindeki renk dağılımını ton dağılımını leke dağılımını nasıl yapacağımızı bilmek için de çok iyi bir kompozisyon altyapımızı olması gerekiyor.

[53] Müzik başlayınca klavyeyi almak için sola kayıp çerçeveyi netliği yaptı, sonra bir anda bağlama başlayınca kameranın pozisyonunu değiştirip bağlamaya netlik yapıp çerçeve yaptı, çıkışa verdiler.

[54] Buradaki objektifin görebileceği en yakın plan omuz plandı. Ben oradaki panı göğüs planda yaptım. Bunun sebebi de omuz planda yaparsam kenarda iki kişinin arasında boşluğa düşüyordu, o boşluğa düşmeyi azaltmak için biraz daha geniş yaptım birisi biterken diğeri kareye girsin diye.

[55] Pilot Kamera nedir? Stadın en iyi orta noktasına kamerayı koyarsın, kameraman onu evde izliyormuş gibi… evde normal baktığımız zaman genelde gördüğümüz kamera pilot kamera olarak geçer ya, onu izleyiciye aksettirmek için stadın en güzel en orta noktasına, yüksek bir yerde olursa daha iyi olur, koyarsın. Onun amacı belli bir orta ölçek genişlikte maçı gözü yormadan izleyiciyi yormadan sakince takip edebilmek için kurulmuş kameradır.

[56] Pilot altı kamera vardır, pilotun yanında çalışır. O da boy plan takip eder oyuncuyu. Görüntü onun çok daha yakın olduğu için kameramanı çok zorlar, sürekli netliği takip etmek zorundasındır. Bunun da görevleri vardır. Pilot altı kamera dediğim gibi boy plan takip eder, faul olduğu anda faulü yapan oyuncuya girer, hakem sarı kart göstereceği zaman sarı kartı gösterir. Pilot altı kamera maçtaki sorumluluğu kameraman açısından söyleyeyim en yoğun olan kameradır, zor demeyeyim de. Çünkü netliği takip etmek zorundasın, bir gözünle vizöre bakarken bir gözünle çıplak gözle başka bir yerde herhangi bir olay oluyor mu onu takip etmek zorundasın (…) Sorumluluk açısından… kameranın sorumluluğu açısından en önemli kamera pilot, kameramanın sorumluluğu açısından en önemli kamera da pilot altıdır. Benim kendi fikrim bu.

[57] Evet şimdi küçük küçük adımlarla ilerlemeye gerektiriyor işte bir pan hareketi yaptığımızda, tilt hareketi yaptığınızda da yere çömelmeniz gerekiyor veya kollarınızla yukarı kalkmamız gerekiyor. Böyle bir durum yıllar içerisinde kendi geliştirdiğiniz fiziksel bir davranışa dönüşebiliyor. Kendiniz bile farkında olmuyorsunuz, dışarıdan gözlemleyen bir kişi bunu söylediği zaman.

[58] Normal resimleri yaparken artık ne gerekiyorsa vücut o şekle giriyor diyeyim. Bitişi komplike hareketler var, bunları hep ben bir komplike hareket yapayım diye düşünmezsin yani. "Şöyle bir resim yapayım, devamında…" olunca bir sürü şey birbiriyle iç içe girmiş oluyor. Pan var, tilt var, zum var dediğin gibi, gövde hareketleriyle gelme… Gövde hareketleri ile gelirken tabii joystickle de şeyi kontrol ediyorsun. Yoksa baştan üstten tepe boşluğu fazla olur, ya yerden boşluğu olur. Onları ama sadece resmi düşünerek yapıyorsun, bitişik geliyor, joystick kullanımı bile dahil içinde.

[59] Bunlar neler? Şöyle diyeyim, zoom, netlik, pan hareketi var, tilt hareketi var, kayma hareketi var, ondan sonra yükselme alçalma hareketi var, onunla birlikte şaryo hareketi de yapıyorsunuz, dutch hareketi yapıyorsunuz ve hepsini birden… Mesela bir harekete başlarken senkron başlamanız lazım. Hiç sıçramadan ve o yumuşaklıkta da bitirmeniz gerekiyor. Bunlardan bir tanesine erken başlayıp bir tanesine geç başlarsınız bir anda görüntü de böyle çalkalanma dediğimiz bir şeyler

ortaya çıkıyor. Ve o üç boyut etkisi içinde de bunu senkron yapmak için ciddi bir tecrübe gerekiyor zaman içinde. Çünkü asistanla kullanmadığınız için o kameranın şaryo üzerindeki yaklaşık 200-300 kiloluk bir ağırlığı da kendiniz hareket ettiriyorsunuz o sırada bunu yaparken. Çok küçük bir detaydan çıkıp genele doğru gittiğinizde ve şaryoyla üzerine çektiğinizde bütün o parmaklarınızın tek tek o senkronizasyonu sağlaması gerekiyor.

[60] (…) Dediğim gibi parmaklarım kameraya hani o biraz önce zoom kolu netlik kolu dedik ya, onlara nasıl temas ediyor ve onlardan nasıl kaliteli görüntü elde etmek için uğraşıyor. O da artık şeye bağlıyor, koordinasyona, vücudumun koordinasyonuna bağlı.

[61] (…) Dolayısıyla parmak uçlarınız dan tutun… el parmak uçlarınızdan tutun, ayak parmak uçlarınıza kadar bütün bedeninizi kullandığınız, 10 saniyede yaptığınız şeye, bir bütün halinde buna dönüşüyor. Bütün bedeninizi kullanıyorsunuz kısacası. Dolayısıyla (…) siz bir dakika bütün bedeninizi kullanarak yapıyorsunuz bu hareketleri. Çok kısa süreler ama bu süreci yaşamak zorunda beden. Eğer yaşamazsa bu planlar gerçekleşmiyor. Evet Çok genel bir plan yaparsınız çok basit bir çevrinme hareketiyle bir adım atarsınız, olur bu. Ama tabi ki istenilen plan kalitesini veya istenilen planın amacına ulaşmış olur mu, olmaz. Ulaşması için bedeninizi kullanmamız gerekiyor, kullanmazsanız o plana asla ve asla ulaşamıyorsunuz.

[62] Steadicamle normal tripoddaki kamera gibi panınız tiltiniz hepsi stabil olmak zorunda. Tabii bu birazcık da bağımsız bir sistem olduğu için vücudunuza üçüncü bir kol taktığınızı düşünün, kendi elinizi nasıl ileri geri beyninizle yönetiyorsunuz, bunu da aynı şekilde vücudunuzun hareketleri ile yönetmeniz gerekiyor. Şimdi zorluk... Pan yaparken kademe yapmamanız lazım ya da tilt yaparken kademe yapmamanız lazım, ya da bir sanatçının etrafında dönerken çerçeveyi kaçırmamanız lazım kafasını kesmemeniz lazım, yine aynı şekilde steadicamle etrafında dönerken bakış boşluğunu kaçırmadan dönmeniz lazım.

[63] Bir şeyi düzgün, kompozisyonu bozmadan, dengeli bir şekilde yapmak zorundasın. O zaman çünkü ekranda izleyen insanın gözü olamayız biz.

[64] Çok iyi televizyon izleyicisi olacaksın. Bizim işte en önemli şey izleyici olmak. Ne yaptın? Çekim yapıldıktan sonra ben onu yaparım, maç çektikten sonra mesela onu bir daha izlerim. Ben bu maçta ne yaptım? Mutlaka geri dönüşünü alırım onun. A bak burada şu hatayı yapmışım, bir daha bunu yapmayayım, şunu şöyle yap saymışım daha iyi olurmuş... Geri dönüşünü mutlaka alacaksın yaptığın işlerde, mutlaka televizyon izleyeceksin, film izleyeceksin, maç izleyeceksin.

[65] Çünkü bakıyorsunuz sizin yapmış olduğunuz şey, televizyon karşısında oturan kişilerin izlediği şeyler. Yani siz ne gösterirseniz onu izliyorlar. Siz ne verirseniz onu şey yapıyorlar. Bu açıdan çok zevkli yani insanların sizin yapmış olduğunuz bir şeyi direkt izleyebiliyor olmaları heyecan verici güzel bir şey yani.

[66] Bizim daha çok gözü yormayacak işler yapmamız lazım, göze hitap edecek. Dediğim gibi o önemli, bizde mesela hareketler hep şeydir, stabil olması gerekiyor, ani hareketler yapamıyoruz, maçlar hariç. Çünkü izleyicide bir yorgunluk etkisi yapar (…) Aslında çekim yaparken tamamen izleyici odaklı yapıyoruz. İzleyici yorulmasın, izleyici keyif alsın, izleyiciye güzel bir şeyler verelim; amacımız bu. Mutfaktan çıkan güzel bir şey olsun, yani tuzunu fazla kaçırmayalım, baharatı çok aşırı olmasın, tam kıvamında olsun.

[67] (…) bir müzik eğlence programındaki yakın plan yüz görüntüsünden sonra oraya neyin oturabileceğini zaman içindeki deneyiminiz ve bilginizle zaten yapmaya başlıyorsunuz ve bu öyle otomatik hale geliyor ki siz zaten çıkıştan rejiyi kontrol ederken otomatik olarak elleriniz o görüntüyle daha estetik bütünleşebilecek ne varsa onu yerine koyuyorsunuz, ve çok daha verimli bir çalışma ortaya çıkıyor.

[68] Ama daha deneysel olan bir yönetmen varsa onun da oradaki kendi taleplerine göre siz de katkıda bulunuyorsunuz ve o zaman belki işin enerjisi daha yüksek çıkabiliyor.

[69] Hani burada inisiyatif kullanmak da önemli çünkü orada biz çalışma şeklimiz itibariyle sorumlu olduğumuz meslek grupları -sorumlu derken tabi kurumsal ve profesyonel anlamda- hani bir yönetmenle çalışıyorsun. Yönetmen bana "sen şurada duracaksın" dedi, öyle anlaştık, ama ben o inisiyatifimi kullanarak orada değil de başka bir yerde durdum. Çünkü ondan farklı bir zamanda ve mekanda ve noktada farklı veriler gördüm. O verileri değerlendirerek sonuç elde ettim ve hani çok başarılı da oldu, çok ses getirdi o şey.

[70] Ama yönetmen çok iyi bir şekilde idare ederse ortamı, siz de aşka geliyorsunuz, o yönetmen için yapabileceğinizin en iyisini yapıyorsunuz, özveriniz en üst düzeyde oluyor, sınırlarınızı zorluyorsunuz. Ve gerçekten, işte o zaman çok güzel işler çıkıyor ortaya. Bazen acemi insan bile çok iyi iş çıkartabiliyor, "vay be bunu sen mi yaptın, helal olsun" diyebiliyorsunuz yani. "Abi yönetmen çok iyiydi gerçekten, nasıl yaptım ben de bilmiyorum" dediğimiz olmuştur yani. Acemiliklerde bu önemli. Yani o yüzden yönetmenle diyalog çok önemli, yönetmenin seninle iyi olması da çok önemli.

[71] Şimdi bakın kameraman neleri belirliyor anlatabiliyor muyum? Bir kameraman değil birçok kameraman orada neler yapıyor, yapabildiği zaman. Şimdi bu çömlek kimsenin aklına gelmez, gelmiyor, daha öncesinde planlanmıyor. Hepsi bunların bir kameraman eliyle olan şeyler. Geldik, ışık yaptık, dramatik ışık… İnanılmaz görüntüler elde ettik orada (…) Çok heyecanlandığım işlerden birisi oldu o.

[72] Ne bileyim, dekor parçaları koymuştur, oradan öyle bir açı yok… Çiçek amorsları çiçek araları falan çok önemli değil de, çok farklı objelerden farklı resimler çıkıyor, sadece konan bir objenin bir deliği vardır, o deliğe solisti oturtursun

yuvarlar, hani masadan yapılmış gibi (…) Normalde öyle bir delik olup oradan solisti yakalamak, göremezsin. Jimmy'den inersin, yuvarlak bir şey var, yuvarlağın ortasında solist görünüyor, etrafı o cisme yakın olduğu için fludur, borunun içinde solist, bu nereden geldi, stüdyoda öyle bir şey yok, kamera onu gösteriyor…

[73] Seyirciye bakıyorum, oradaki oturanlara bakıyorum. Hatta bir ara sazendeler de oynamaya başladı, oraya girdim ama görmedi yönetmen de görmedi, kaldı öyle. Yani çalan sazendelere değil çalmayan sazendelere de bakıyorum, söyleyene değil söylemeyene de. Hatta arkada birileri oynuyordu oralara da gittim. Yani tek bir yere odaklanmıyorum. Yani top oynanan yerleri değil oynanmayan yerleri de görüyorum, bakıyorum.

[74] Maçta da yapılamamış ya da yapılmayan bir sürü şey var, hani onları bulmak da önemli bir şey. Hani ne diyeyim, kramponların altı mesela… Ben 15 yıl önce ilk defa kramponların altı böyle dururken yakın plan krampon göstermiştim, acayip şey olmuştu yani. Kendi adıma da ondan haz almıştım, hiç verilmemiş bir görüntü, çimler toprak falan.

[75] Biliyorsun kamera İnsan gözü gibi bir şeydir. Zaten kameranın ilham kaynağı da görmeye dayanır. Şimdi eğer sen güzel göremezsen güzel çerçeve hazırlayamazsın, hangi kamerada olursan ol. Senin ekrana yansıtacağın şey gözünün gördüğüdür, hayalinde kurduğun şeydir. Sıfır dekor vardır, yeni kurulacaksındır, jimmy jib için özellikle objeleri ayarlarken "şu obje şurada dursun, şu hareketi yaparım; bu obje burada dursun bu hareketi yaparım". Bu senin düşüncendir, senin hayal gücündür. Bir başkası onu orada o şekilde kullanamayabilir.

[76] Yetenek… Muhtemelen bu değişken işlerde yine de "şuradan şöyle mi yapsak, böyle mi" bir arayış içinde olan, rağmene göre bulan biridir. Ben bir tartışma programında Zaferden bir görüntü gördüm, gittim yanağından öptüm. Helal olsun. Objektife çok yakın bir yerde -adamın gözlük takıyor biraz da kalınca, karşıya bakıyor- gözlüğün şeyinde karşı konuğu görüyor. Gözlük var. Çok böyle denk gelmesi zor. Görmüş ama o yansımadan, yansımadan görmüş. Yetenek diye bir şey var. Onun orada olabileceğini kestiriyorsun.

[77] İşin açıkçası çok fazla iş alanını bilmiyorduk. Yani işi de çalışırken öğrendikbBir nevi. Hani usta-çırak ilişkisi ile öğrenmiş olduk. Böylece başlamış olduk yani kendimiz öncesinden temel olarak bir bilgi sahibi değildik. Ne yapacağımızla ilgili bir bilgi sahibi değildik.

[78] Asıl eğitimin bizim, özellikle stüdyo kamera grubunda, işbaşı eğitim olduğunu gördüm. Ve dolayısıyla benim ilk iş deneyimim aslında eğitimimin de ilk deneyimiydi. Görece daha sakin yayınların yapıldığı, görece daha fazla kamera hareketinin istenmediği, çalışanın daha rahat hissedeceği işlerle başladık. Bunlar da genelde burada haber stüdyolarında… Haber stüdyolarında ilk iş başı ve eğitim

deneyimimi orada başlatmış oldum diyebilirim, evet. İlk haber stüdyolarında eğitime başladım.

[79] Biz ilk başta hiç eğitim almadan bizi üstadların diyeyim hani usta kameramanların yanına izlememiz için belli bir süre gözlemlememiz için gönderiyorlardı. Hepimizin bağlı olduğu üçer kameraman vardı, onlarla izlerken bir abimiz bu iş böyle bakarak olmaz dedi. Yani illaki bakarak olmaz bu iş de, ilk kamerayı verdiğini hatırlıyorum da canlı yayında bir de 5 dakika sonra falan her tarafımdan ter aktığını hissettim.

[80] Ya bu yetenek nasıl bir şey biliyor musun? Hani müzik kulağı bir yetenektir, resim çizmek bir yetenektir. Aslında kameramanlık da genel anlamda bir yetenek işi. Yani bu işi öyle adamlar öyle enteresan yapıyorlar ki. Mesela haber kameramanı olmak için doğmuş adamlar var, bu işten başka bir şey yapamaz bu adam diyorsun. Veya ne bileyim stüdyoda bizim içimizdeki arkadaşları biliyoruz, ne kadar yetenekli insanlar var ya. Yani bir hareketi izle diyorsun veya ne bileyim orada bir sürü objeler var ya hareket yapalım diye, oradan bir resim veriyor sana "ya yok artık" diyorsun, "bu kadar nasıl olabilir" diyorsun. Çünkü kuruyor kafasında onu, yaratıyor, görüyor yani. Bir de şeyi biliyor, imkanları bildiği için…

[81] (…) Ama bir de yetenek denilen bir şey var işin yaratıcılık boyutu. El göz koordinasyonu (…) Jimmy jib kullanmak için aynı gün kursa başlıyorsunuz birinin joystick kullanımı bir saat içinde o kadar üst düzeye gidiyor ki birisine bakıyorsunuz aradan 4 yıl geçmiş hala pan-tilt yaparken ciddi merdivenler var. Bu anlamda yetenek önemli, el göz koordinasyonu çok önemli. Bedensel olarak sizin iyi koordine edebildiğiniz bir el ve zihinsel yeteneğiniz varsa bu işe çok pozitif katkıda bulunuyor Hakikaten ama her şey yetenek değil, yeteneğiniz çok iyi olabilir ama kendinizi iyi geliştirmediyseniz işte bu kurmanız gereken ilişkileri iyi kurmadıysanız, o zaman ne yaparsanız yapın belli bir noktanın üzerine çıkamıyorsunuz, yetenek her şey değil bu anlamda.

[82] O (yetenek) aslında kameramanın yaptığı işe göre değişiyor. Mesela şimdi şöyle söyleyeyim sana yetenek derken bir maçta çalışan veya spor müsabakasında çalışan kameramanın reflekslerinin çok iyi olması lazım. Yani sağdaki kaleden soldaki kaleye veya işte korner direğinden kaleye dönüşlerde saniyelerle ölçülecek zamanda dönmesi lazım. Çünkü pozisyon kaçar. Ama bir belgesel kameramanı için belki refleks çok önemli olmayabilir. Çünkü orada başka yetenekler ortaya çıkar, orada kompozisyon kurallarını iyi bilmesi lazım, aşırı çok çok iyi bilmesi lazım. Dolayısıyla yetenek çalıştığın işe göre de değişiyor, kameramanlık açısından da çalıştığın branştan branşa göre değişiyor. Haber kameramanı için yetenek nedir: doğru ses, tam görüntü yetenektir.

[83] Girdik, 2 sene sonra falan herhalde eğitimini aldık, eğitimden sonra vallahi şöyle söyleyeyim hani kamera ile bütünleştiğim 4-5 sene falan oldu diyebilirim tam anlamıyla. Şu an ben şey diyorum mesela… Önceden... steadicam işi olacak, ben

yazıldığım zaman o işe gideceğim zaman, "ya" diyorum "şimdi kuracağım ama dengeyi tam yapabilecek miyim" ya da "sahneye çıktığımda resimlerim nasıl olacak". Böyle sürekli kafamda düşünüyordum. Ama şu an diyorum ki hiç mesela... Baktım bugün steadicamde görevliyim, hiç düşünmüyorum artık; çünkü kafamda belli bir düzenim var, alete hakimim, onun benden kaçacağını düşünmüyorum, ben artık hakimiyetimi onu da kabul ettirdim, steadicame de kabul ettirdiğim için, çok rahat…

[84] Bu iş tecrübe ile sabit. Bir işi ne kadar çok yaparsan veya ne kadar çok görsel görürsen veya deneyim alırsan işte tecrübeli kişilerden bakış açın değişiyor resim, bilgin gelişiyor, el meleken artıyor. Atıyorum ilk günkü kullandığı, belki basit bir şey olacak ama, ilk gün zum girerken mesela onun ritmini ayarlayamıyorsun ama zamanla şey oluyor… Öte yandan nasıl değişiklikler oluyor, mesela bir müzik eğlence programını ele alalım, şimdi ilk girdiğinde obua diye bir alet nedir bilmiyordum, ama zamanla çalışa çalışa mesela onun sesini duya duya herhangi bir konserde o enstrüman çaldığında hemen kulağın ona alışmış oluyor ve direkt refleks olarak o enstrümana gidebiliyorsun. Bunlar falan zamanla olan şeyler.

[85] Deneyimsiz olduğum zamanlarda karar verme refleksim hızlı değildi. Çünkü karar vermek çok kısa zamanlarda beyinde birçok şeyin olduğu bir süreç. Örneğin ben asıl konudan uzaklaştım, çevremde başka bir konu gelişiyor, ben ona dönüp dönmeme kararını verirken deneyim devreye giriyor. Neden? Çünkü ben deneyim sahibiyken bu durumlarla çok karşılaştığım için artık öğreniyorsunuz, inisiyatif alınıp alınmadığına dair bir fikir gelişiyor, alıp almayayım mı diye o sorunun cevabını - birçok örnek gördüğünüz zaman deneyim sahibi iken- çok daha kısa sürede verebiliyorsunuz.

[86] Çevreyi de görmek zorundasın. Özellikle mesela ben… pilot altında falan söyledim, ben hep sürekli bakarım öyle, ama oraya da bakarım. Ama bu dedim ya zamanla edinilecek bir şey. İlk yıllarda ben de yapamazdım, yapamıyordum da yani. Tabii bu doğuştan olan bir şey değil, biz anamızdan kameraman olarak doğmadık, biz de yıllarca belki bir sürü facialar yaşadık, goller kaçırdık, çok flu olduk. Bunları hep yaşadık. Ama tabii bunlar hep yıllar…

[87] Maçlarda işte dediğim gibi yeri geliyor hangi futbolcunun daha cevval olduğunu gol atabileceğini... Bazen onu takip ediyorsunuz. Topun nereye gideceğini az çok, 1000 kere 2000 kere maç çektiğiniz için artık bir şutu çektiği zaman bu kaleye mi gider auta mı gider artık az çok bir öngörünüz oluyor. Ona göre takip edebiliyorsunuz. Hakikaten de bazen... O deneyim artık tecrübeye dönüşüyor... Onunla birlikte o topu sağlam bir şekilde takip edebiliyorsunuz.

[88] Eğer parçayı biliyorsam, 10-15 saniyelik eğer o marjı varsa enstrümanın, onun hızına göre çıkıyorum. 10 saniyede adamı tamamen görebilirim veya bakıyorum şey kısa, minütajı kısa müzik enstrümanının, o zaman orada kalıyorum, çok fazla oynamıyorum veya tam plan alıyorum müzisyeni öyle bekliyorum

[89] (…) Çünkü iki tane aynı plan yönetmenin işine yaramaz. Onu göremediğiniz durumlarda, yani ola ki hazırlıkta bir kameraman plan hazırlamış onu görüyorsunuz fakat diğerlerini göremiyorsunuz. Bu kez, burada devreye belki önceki çalışmaları sırasında arkadaşınızın ne yapabildiğini ne yapmak istediğini neler yapabileceğini gözlemlediyseniz tahminleriniz üzerinden gidebilir. Veya onun bakış açısı ne yönde, estetik bakışı veya sanatsal bakışı habere bakışı konuya bakışı ne yönde gelişir, şeklinde bir tahminde bulunursunuz. O tahminler de tamamen o kişiyi önceden yaptığınız gözlemlerden yola çıkarak yaptığınız bir tahmindir.

[90] O cihaza en baştan çok hakim olup da onun neler yapıp neler yapamayacağını baştan eğer oturtmazsanız size çok da kolay ihanet edebilecek bir şey, yayın sırasında sizi çok zor duruma düşürecek hatta kameraman yapamıyor etiketini bile alabileceğiniz çok zor cihazlar. O anlamda bunun için çok iyi bir antrenman yapmanız lazım ve özelliklerini çok iyi bilip kendinize de güvenerek ve çok yüksek bir psikoloji ile o işi yapmanız lazım. Ben de ilk çalıştığım maçlarda hakikaten o ruh hali ile başladım yapmaya. Hakikaten enerjiniz yüksekse çok büyük verim alıyorsunuz. Bu anlamda yine ekip çok önemli, iyi bir frekanstaki yönetmenle çalışıyorsanız veriminiz artıyor, iyi bir ekiple çalışıyorsanız da yine veriminiz artıyor.

[91] Bir taraftan müziği dinliyorum Bir taraftan da yönetmenin sözlerine dikkat ediyorum. Hatta bir taraftan da -şimdi çok yeni bir yönetmen olduğu için- resim seçicinin olaya ne kadar inisiyatif kullanıp müdahale ettiğine de bakıyorum. Çünkü bir anda komut dışında da kesme olabilir, o kesmelerin de nasıl olabileceğini takip ediyorum. Bir takip ettiğim bir şey vardı monitörde benim görüntüm olduğu için görüntümde kamera beş de var mı yok mu onu da kontrol ediyordum. Pek çok yönden zihninizi bölmeniz gerekiyor o anlamda.

[92] O içerideki sufleler çok önemli, her şey için önemli. Hani başka kameralar da duyuyor... şöyle yani... onlar resim yapıyorlar, ben onları desteklemek anlamında yapıyorum (…) Çok önemli sufle. İşin yüzde 20'si diyeceğim sana benim açımdan. Bir de o suflelerin şeyi de önemli, hani biteceği yerleri bilsek enstrümanların… öbür enstrüman... mesela bugün söyledi "şundan sonra şu girecek, şundan sonra şu girecek". Onlar bile benim için önemli. Bütün kameramanlar için önemli daha doğrusu.

[93] Bu futbolcu uzun şutlar vurur, demek ki benim hazırlıklı olmam lazım hızlı bir çevrinme hareketine, panla benim takip etmem lazım

[94] Şu anda kamera 3'te haber anonsu yapıyor. Ben de en genel plana çıkıp şöyle genel plandan bir sonraki girişe hazırlık yapıyorum. Şimdi böyle sabitleyip bırakacağım gövdeyi, artık bir sonraki habere geldiğinde kilitleri açarak devam edeceğim. Ama yine de her ihtimale karşı çerçevemi düzgün biçimde bırakıyorum ki bana kesmek zorunda kalırsa sıkıntı çıkmasın.

[95] Demin bahsetmeyi unuttum, biz ortama da bakıyoruz. Nerede kullanılacak? Güvenli mi? İnip çıkacağımız yerlere bakıyoruz. Mesela basamak varsa rampa yaptırmaya çalışıyoruz oraya. Buna baktıktan sonra yönetmenle reji toplantısında yönetmene diyoruz burada kullanılır veya kullanılmaz, bu hareket yapılır veya yapılmaz, bunu yönetmenle konuşuyoruz.

[96] Çalışmış olduğun ortam kesinlikle çok önemli. Ortamı bir kere kendine göre hazırlaman gerekiyor, Hareket edeceğin yerleri ona göre bir dizayn etmen gerekiyor. Aksi takdirde bir şeye takılıp düşebilirsin. O çevre kontrolü de çok önemli steadicam için.

[97] Bizde anlık, çünkü yayınlar oluyor, canlı yayınlar özellikle müzik eğlence ve futbol maçları. Refleksiniz kuvvetli değilse kaçırabilirsiniz çoğu şeyi. Bir işte baterinin vurmasını refleksin iyi değilse kaçırabilirsin. Refleks derken de hem uzun girip aynı zamanda netliği hızlı bir şekilde yapabilmek bir de onun geleceğini fark edebilmek, o müziğin gelebileceğini fark edebilmek. Maçlarda örneğin o şutu... pozisyon… Net olarak bir şekilde takip etmek, topu net olarak takip edebilmek. Maç esnasında bir sürü olay oluyor, refleksin kuvvetli değilse o şeyleri kaçırabilirsin. İşte hakemi bir şekilde kaçırabilirsin, değişiklik vardır değişikliği kaçırabilirsin. Refleks çok önemli bizim yayın için. Refleks, hızlı olmak, atik olmak çok önemli kavramlar. Refleksi kuvvetli olan kişilerin de yeteneğe aslında katkısı kesinlikle vardır, ondan da bahsedebiliriz. Bizim yayın için refleks gerçekten çok önemli bir kavram.

[98] (…) Gözümün ne kadar gördüğü, gözümün gördüğünü beynimin ne kadar çabuk kabul ettiği… O da çok önemli. Bütün sinirlerim çalışıyor o an. Sonra beynim kabul ediyor ya, al bu inisiyatifi diyor, sonra aynı beyin yani dış etmenlerden gelen, gözümden gelen, dokunarak belki de karanlıkta çalışırken, dış etmenlerden gelen bilgiyi "Tamam kardeşim bu inisiyatifi alabilirsin" diyor sinirler vasıtasıyla. Aynı sinirlerle bu sefer "yap bunu" emri geliyor. Ben o emir ile birlikte hiç gözünün yaşına bakmadan o inisiyatifi alıyorum.

[99] Geçen bir aktüel çekime gittim, stüdyoda çekiliyor. Ama jimmy jib'de panda bir sıkıntı vardı, pan motorunda, ve hareketi yaparken kameraman tabiriyle merdiven teknik kademe yapıyordu, bir türlü çözemedik jimmy jib teknisyeni ile de. Ve yönetmen de arkadaşım olduğu için, şimdi hissediyor kademe olduğunu ama beni kırmamak için söyleyemiyor ama ben farkındayım kademe olduğunun ve onun rahatsız olduğunun farkındayım, bir türlü olmuyor. Teknisyene söyledim ya dedim sıkıntı var panda, yapıyor oldu mu abi diyor, yapıyorum olmadı diyorum, yapıyor, oldu mu olmadı. En son yayının son 5 dakikası kala pan motorunu değiştirelim dedik, pan motoru değişti yine olmadı, çünkü o motor da arızalıydı. Eğer cihaz düzgün çalışmıyorsa bu bizi tabii çok etkiliyor. Ve o gün gerçekten nefret ettim, bir daha dedim kullanmayacağım ya, o raddeye geldim yani. Bu tür şeyler insanın canını sıkıyor. Onun için teknisyen de uğraşıyor, o da kötü olsun istemez ama maalesef cihazlar düzenli bakım yapılmadığı için şey oluyor, bu tür şeyler bizi zorluyor.

[100] Tabi yani şimdi en basitinden yıllar önce başıma gelen bir şeyi anlatayım ben (…) Yayın sırasında kamera pedestalimin ön ayağının o sıkıştırma şeyi aparatı arızalı olduğu için yavaş yavaş kameram öne doğru düşmeye başladı. Ve önemli bir kameraydı. Ve ondan sık sık planlar alınıyordu, futbol maçıydı. Ben diğer ayakları da onun seviyesine indirerek durumu kurtardım. Fakat tabi bunu yaparken, ağır bir kamera objektifi takılıydı, çok fazla o anda güvenlik bölgesindesiniz, o alana başka bir kişiyi çağıramıyorsunuz, zamanınız da yok canlı yayın, yardım alabileceğiniz hiç kimse yok, orada yapabileceğinize inanırsanız bedeninizle o şeyi tutup tutamayacağınızdan eminseniz onu yapabiliyorsunuz. Ama bunu herkes yapmayabilir, çünkü ağır bir kamera, kaldıramayabilirsin onu kontrol edemeyebilirsin. Dolayısıyla o sizin kendinizi tanımanızla ilgili bir şey.

[101] Jimmy jib'de kamera hareketlerini yaptığımız ana unsur bizim joystick'imiz. O joystick bütün o pan tilt hareketlerini yaptığımız kamerayı çok ince bir şekilde kontrol ettiğimiz bir şey ve bunun küp şeklindeki bir dizaynı var. Oysa benim elim küp şeklinde değil. Onu tutarken rahat tutmadığım için de bütün o kamera hareketleri boyunca o joystick'in elimden fırlayıp gidebileceği endişesini yaşayarak ben onu kullanıyorum. Yıllardır onu kullandığımız için de artık bir şekilde onun kolaylıklarını yaptık. Ama hep elimin bütün sınırlarını zorlayarak onu tutmaya çalışıyorum ve her çalıştıktan sonra da elimin belli noktalarında ciddi ağrılarla eve gidiyorum. Oysa onun benim elime göre daha yuvarlak bir tasarımı olsa ve joysticki daha kolay kullanabilsem eminim benim iş verimim de artar diye düşünüyorum.

[102] Onu daha verimli nasıl kullanabilirsiniz, elinizle daha iyi nasıl kavrayabilirsiniz, hangi parçalarını yer değiştirerek nasıl yapabilirsiniz üzerine kafa yorduğunuzda da üzerinde yaptığınız küçük değişikliklerle modifikasyonlarla kendinizce pratik çözümler getiriyorsunuz (…)

[103] (…) Bizim açımızdan en büyük sıkıntı vizörlerin çok yüksekte kalması. Yani biz kamerayı objemizin veya bir insanın göz hizasında ayarladığımız zaman vizöre o kadar yukarıya bakıyoruz ki, genellikle bizde hepimizde bu boyun ağrıları, kireçlenme, göz bozuklukları -çünkü açı da ters kalıyor- . Fiziksel olarak bizi çok fazla etkileyen şeyler var.

[104] Bazen mesela Jimmy jib'de ellerim yukarıda bekliyorum. "Sana seçeceğim" diyor mesela yönetmen, "hazır" diyor, 5 dakika öyle bekliyorsun, zorlanıyorsun. Ellerim titriyor (…)

[105] Bu cihazı üzerimize aldığımız da belli açılarda tutuluyor belli bir pozisyonda tutuluyor cihaz, belli amortisör sistemleri var, o sistemlere müdahale etmeden belli açılarda durduğu zaman cihaz, stabil duruyor. Attığımız adımlarla yumuşak adımlarla o stabiliteyi devam ettiriyoruz. Yoruldukça attığımız adım şekilleri değişiyor, daha sert adımlar atmaya başlıyoruz veya daha yavaş adımlar atmaya başlıyoruz. Cihazı normalde elimizle kontrol etmiyoruz, belimizle kontrol ediyoruz.

(Yoruldukça) elimizle cihazın yükünü hafifletmeye çalışıyoruz, elimizle yükü hafifletmeye çalıştığımız zaman temas ettikçe cihazdaki titremeler eğilmeler bükülmeler daha fazla olmaya başlıyor. Yoruldukça da cihaza elle müdahaleler artmaya başlıyor. Elle müdahale arttıkça da cihazda görüntü sallanmaya başlıyor çünkü amortisör sistemini engellemiş oluyoruz elle tutarak.

[106] Şimdi yönetmenlerin her istediği bazen yapılmaz, çünkü kötü yönetmen olduklarından ya da şeyden değil. Öyle söylüyor da o da resmin şeyine aykırı olabiliyor.

[107] Siz jimmy jib'de bir harekete başlıyorsunuz, soldan sağa gidiyorsunuz, bir anda size "sola gidin" diye bir komut geliyor. Bir jimmy jib kullanan için çıldıracak andır o. Zum giriyorsunuz, zum girerken bir anda "çık" komutu geliyor. İşte o yüzden kameramana dokunmayın arkadaş. Kamera kartı hazırlamadıysanız kameramana dokunmayın.

[108] Şimdi du da başıma gelmiş bir olay. Bir futbol maçında gerçekleşti, tabii biz izleyiciyiz orada. Adam diğer karşı taraftan hakeza öyle normal bir vuruşla birlikte yani amacı topu kendi sahasından uzaklaştırmak isterken top direğe çarptı ve kaleye... Kalecinin bile beklemediği bir şekilde gol oldu. Normalde işte bunu yakalamak çok ayrı bir şey. Çünkü normalde görevlerine baktığınızda kameraların, hiçbir kameraman ya da kamera bu görev için kendisini hazırlamaz. O anlık için gelişen bir olaydır.

[109] Pan hareketi ani bir şekilde başladı, bu ani hareketi aslında ben dikkatli yapmıştım ama yine de engelleyemedim. Bu kameranın zumunda ve panında biraz boşluklar var. Mesela joysticke dokunduğum zaman hemen pan yapmıyor. Birkaç saniye sonra yapıyor. Zum da aynı şekilde. Dokunduğum zaman yapmıyor, biraz zaman geçmesi gerekiyor, ondan sonra hareketi veriyor

[110] Kötü oldum, bana kesti ve saksafon çalmıyor, ben de flulaştım başka bir kameraya geçsin diye, yanlış minütaj. Üzülüyorsunuz, sana kesiyor ve boş bir çerçeve, kötü oluyor.

[111] (…) Veya yapacağım hareketi planlıyorum kafamda, girdim mesela yayın sırasında görüntüye girdim, o anda istemediğim bir şey çıkıyor karşıma, mesela o Çepik programında bir tane davulcu var, her yerden çıkıyor. Tam böyle hareketimi planlamışım, steadicamle girmişim, bir bakıyorum, solistin etrafından… karşıma o çıkıyor. O anda ne yapacağımı... ilk yıllarda... Ben böyle kalıyordum yani. Ne yapıyordum? Ya görüntü bozuluyordu ya böyle 1 saniyelik boşluk oluyordu arada.

[112] Yani sanki burada ben kendimi garantiye aldım gibi, benim olduğum sıradan geçemezler, arkamdan geçerler gibi. Bazen boşluk olunca tedirgin ediyor, ki çok da başımıza da geliyor bu tür çarpmalar çarpışmalar. Adam geliyor, tamam öyle bir bakıyor, maça bakarak senin arkandan geçiyor. Ayağı mı takılıyor kolu mu takılıyor,

o da farkında olmadan bazen bizim şeyimizi bozabiliyor. Ama burada dediğim gibi rahattı, çünkü ben geçme şansı tanımadım yerimden dolayı.

[113] Zemini şöyle kontrol ediyorum. Bazen dalıyorum çalışırken, kablo altına giriyor ve tam hareket yaparken "tırrtt" diye kabloya çarpıyorsun ve kötü görüntü oluyor. O yüzden hep gözüm kabloda. Ayağımla kabloyu çekiyorum basmayayım diye.

[114] Geç kalmışsındır, yemek yememişsindir açsındır, bu etkiler seni. Veyahut da lavaboya gitmen gerekiyordur sıkışıksındır, ne bileyim kafana bir şey takılmıştır, bir türlü kendini veremezsin yani. Böyle bir durumda maçta pilot kamerada çalışırsan ne olur? (…) Koparsın yani.

[115] Şimdi sürekli aynı resim olduğu için, bağlama. Biraz daha kendimi onun dışındaki resimleri de müziğin de içinde görmek istedim. Sadece bağlamayla odaklanmak istemedim yani. Şeyin tamamını görmek istedim, alanın tamamı görmek istedim. Çünkü o artık bana biraz daha hata yapma şeyini fazla yaptırıyor. Sürekli aynı resim olduğu zaman… Aynı insanın yemek yemesi gibi, sürekli aynı yemeğin bıkkınlık oluşturduğu gibi, aynı resmi verdikçe ya da aynı şeyi sürekli verdikçe dikkat dağıtıcı daha fazla oluyor.

[116] Hani bir koltukta uyursun da tam kafadan öne düşecekken kalkarsın bir anda, ne oluyor neredeyim diye, öyle bir şey. Yani hazırsın zannediyorsun ama olmayınca bir anda kendine geliyorsun, her şey bitiyor, "ah noldu falan filan"a geliyorsun, adrenalin gelip hemen kendini tekrar bir şeye odaklandırıyorsun. Yani her şeyi bırakıp direkt resme bakmak…

[117] Deneyimli olduğunuz zaman, şöyle bir şey, daha çabuk toparlıyorsunuz. Yani sonuçta deneyimli olsanız da olmasanız da motivasyonunuz bozulduğu zaman hata yapıyorsunuz. Bu kesin bir şey. Fakat deneyim sahibi olduğunuzda biraz daha o refleksi çabuk geliştirip daha toparlıyorsunuz. Ama deneyimsiz olunca toparlama süresi daha uzun oluyor ve o yaptığı şeye takılıyor deneyimsiz kişi, hataya olabilir veya yapamadığı bir kamera hareketine olabilir. (…) Ama deneyim kazandıktan sonra biraz daha onu unutup tekrar motivasyonunu sağlayıp devam edebiliyor.

[118] Şunu fark ettim, biraz daha geniş çalışmam gerek çünkü güneş çıktı ve takibi daha zorlaştı, topu göremiyorsun parlamalardan da dolayı. Erkekler daha sert vuruyor bunu görüyorsun, ona göre daha geniş olman lazım ve erkekler daha uzağa vuruyor çizginin çok daha dışına gelip karşılıyorlar topu. Ha burada önce öbür sporcuyu da bulmaya çalıştım, bulamayacağımı gördükten sonra "topu gör, nasıl olsa topa vuracaktır" mantığını geliştirdim, ona göre çalıştım. Yani bu her iş için geçerlidir. Bu normal insanın da yapacağı şey, çok kameramanlık da değil yani. İşin gereğini eğer gereği gibi yapmak istiyorsan sonuçta ona göre revize edersin görüntünü, fikrini, şudur.

[119] Ben yayının başında baktım da yoktu. Yoktu yani benim hissettiğim yoktu. Olabiliyor böyle şeyler ama bizde tabii. Önemli olan bu mekanik arızalar veya vs. Bunu yayına yansıtmamak. Bunu mümkün olduğunca… Mesela o anda kriz yönetimi nasıl giriyor devreye. Bir, zum yapmamak. Nasıl yapmadan ben kurtarabilirim diyorsun mesela. Sağdan soldan bir şekilde yönetmeni de oyalıyorsun. Yani yönetmeni oyalıyorsun derken… Çoğu hareketleri yavaş yapıyorum.

[120] Birbirimizi nasıl kurtarıyoruz? Mesela birinin göremediği kaçırdığı veya başka bir sebeple teknik bir sebeple yakalayamadığı bir şeyi hemen siz o anda müdahale edip sizin açınızdaysa hemen müdahale edebiliyorsunuz, mesela girebiliyorsunuz, onu kurtarıyorsunuz. Ya da yönetmen bilemiyor bazen, onu göremeyeceğini bilemiyor, ya adam göremiyor, göremez o pozisyonda göremez o açıdan. Sizin görmeniz gerekiyor, siz o anda müdahale ediyorsunuz. Ama siz bunu yapmasınız cebelleşip duracak. Yani rejiyi de bozacak bir şeyden bahsediyoruz. Burada bir yayın kurtarma ve arkadaşınızı kurtarma durumu söz konusu.

[121] (…) Bazen de kamera açısı gerektirmediği halde diz de çökebiliyorum. Çünkü o an dizlerimi dinlendirmek için. Bir saat, bir buçuk saatlik bir programda eğer ayakta kaldıysanız bunu yapmak motivasyonunuzu canlı tutar. Öbür türlü motivasyon dağılır, yorgunluk belirtisi çıkar ve hata yapmaya başlarsınız belli bir süre sonra, hata yapılır, dikkat dağılır yorgunluktan dolayı. Bizim program süremiz çalışırken bazen 3 saati 4 saati 5 saati bulduğu zamanlar olduğundan, bu küçük küçük aralarda bu eylemler kişinin yorgunluğunu bir nebze dağıtan, dikkatinin dağılmasına engel olan küçük küçük hareketler bunlar, ve gereklidir de.

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EDUCATION

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BS	METU Industrial Design	2007

WORK EXPERIENCE

Year	Place	Enrollment
2022-Present	TRT	Producer-Director
2009-2022	TRT	Camera Person

FOREIGN LANGUAGES

Advanced English, Beginner German, Beginner French

PUBLICATIONS

1. Aktaş, B. M., Tok, T., **Gürtekin, B**., Kaygan, H., Dilek, Ö., Özçelik, A., Akın, F & Büyükkeçeci, E. (2022). Human-Thing Relations in Design: A Framework Based on Postphenomenology and Material Engagement Theory. METU Journal of the Faculty of the Architecture, 39(1), 57-76. DOI: 10.4305/METU.JFA.2022.1.3

2. **Gürtekin F. B.** (2020). *Camera Operating Narrations: Understanding the Embodiment Moments* [Conference presentation abstract]. Philosophy of Human Technology Relations Conference 2020. Design Lab, University of Twente. https://www.utwente.nl/en/phtr/overview-sessions/pdf-documents/13.-gurtekin.pdf

3. **Gürtekin, F.B.** (2019). *Fenomenolojik Anlatılar: Kamera Kullanımında Bedenleşme.* [Conference presentation]. STS Turkey 2019: Toplum İçin bilim ve Teknoloji Çalışmaları Konferansı. İstanbul, Türkiye

4. **Gürtekin, B.** & Kaygan, H. (2018). *Bir Otoetnografik Anlatı: Stüdyo Ortamında Kamera Kullanımı ve Bedenleşme*. *(359-375).* http://utak.metu.edu.tr/utak-2018

5. Tosun, M., & **Gürtekin, F. B**. (2018). Ankara'daki Suriyeli Mültecilerin Kayıt Süreçlerinin Yeniden Tasarlanması. *UTAK 2018 Bildiri Kitabı Tasarım ve Umut. 646.* https://hdl.handle.net/11511/97864