Emancipating Critical Thinking Through Aesthetics

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Abstract

This thesis examines how critical thinking can be enriched by incorporating imagination, emotions, and aesthetic sensibilities alongside logical reasoning. Traditional models of critical thinking have often excluded these dimensions, limiting their ability to address complex and dynamic contexts. Beginning with an analysis of critical thinking textbooks, the thesis identifies two central gaps: (1) the absence of any role for imagination in critical thinking and (2) a reductive and largely negative view of emotions. It then engages with alternative frameworks, such as Michael Gilbert's multi-modal argumentation framework, which attempt to move beyond traditional approaches. I argue that although these are a step in the right direction, there is still work to be done to fill these gaps. Drawing on the distinction between propositional and non-propositional representations, the thesis proposes a hybrid framework that integrates logical analysis with aesthetic experience. Through an investigation of aesthetic experience and its connection to emotions, imagination and critical thinking, the thesis shows how critical thinking can become a more comprehensive intellectual practice. The application of this enriched model to philosophical inquiry, with a particular focus on the concept of beauty as it applies to philosophy, provides an illustration of the application of the model. Finally, the thesis introduces improvisation as a synthesis of reason, emotion, and imagination. This provides a practical example of the integrated critical thinking approach developed throughout the work.

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Introduction

To think critically is to engage in deliberate, reasoned thought aimed at evaluating arguments, identifying assumptions, and drawing well-supported conclusions. It involves logical analysis, as well as deductive and inductive reasoning, and is widely seen as a foundation of intellectual inquiry. Much of the critical thinking tradition, especially as it has developed in recent decades, is a practical, pedagogical tradition that is focused on providing effective tools for structuring rational discourse and fostering intellectual discipline through teaching materials such as textbooks. While these pedagogical approaches have been valuable, they do not include emotions and imagination in their conception of critical thinking. This thesis explores how critical thinking can be enhanced by integrating imagination, emotion, and aesthetic sensibilities, making it more adaptable and responsive to real-world challenges.

The motivation for this research comes from the understanding that critical thinking has played a central role in improving reasoning, problem-solving, and evidence evaluation across education, professional life, and public discussion. However, if we are to expand its scope, we must consider aspects of human thought that have been largely overlooked in the critical thinking tradition, namely, imagination, emotions, and aesthetic sensibilities. These elements can support and enrich critical thinking, helping it meet the demands of complex and dynamic contexts.

Reasoning does not operate in isolation from our affective and imaginative capacities. Emotions influence how we engage with information, shaping our openness to new ideas and our ability to empathize with different perspectives. Imagination allows us to think beyond established paradigms, envision possibilities, and generate innovative solutions. Aesthetic sensibilities help us recognize patterns, appreciate details and engage with meaning in ways that extend beyond strict propositional logic. I argue that by incorporating these dimensions, we can enrich critical thinking without undermining its logical foundation, creating a more holistic and dynamic intellectual practice.

Aesthetic experience, I argue, provides a valuable model for this enriched approach. Just as interpreting and creating art involves perspective-taking, emotional engagement, and

conceptual exploration, so too does effective critical engagement with complex ideas. The inclusion of aesthetic sensibilities in critical thinking allows for a richer, and a more comprehensive understanding of arguments, enabling individuals to approach problems with greater adaptability and depth. By broadening the scope of critical thinking to include aesthetic dimensions, this research seeks to enhance—not replace—the existing framework, ensuring that critical thinking remains both rigorous and responsive to the complexities of human experience**.**

The thesis begins by interrogating the limitations of contemporary critical thinking textbooks. Despite the diversity of textbooks, some general and some tailored to various disciplines from nursing to business, two significant gaps emerge: (1) an absence of substantive engagement with imagination, and (2) a reductive and predominantly negative treatment of emotions. Chapter 1 illuminates these shortcomings through a systematic analysis of foundational and contemporary texts, revealing how these gaps diminish the potential of critical thinking as a transformative intellectual practice. In this chapter I set the stage for the philosophical project, underscoring the need to broaden our conceptual approach.

Building on the critique established in Chapter 1, Chapter 2 explores innovative perspectives that seek to transcend traditional boundaries. It examines frameworks such as the inquiry approach of Bailin and Battersby and Michael Gilbert's multi-modal argumentation approach, both of which aim to reconfigure critical thinking by integrating contextual and emotive dimensions. However, while these perspectives advance the discourse, they fall short of fully incorporating the creative and imaginative faculties that this thesis seeks to foreground. By engaging critically with these approaches, Chapter 2 lays the groundwork for a more comprehensive and integrative model. It also demonstrates how these attempts, while partial, reflect an increasing recognition of the need to rethink critical thinking's scope and application.

Chapter 3 deepens the inquiry by introducing the distinction between propositional and non-propositional representations. It contends that addressing the gaps identified in Chapter 1 necessitates a hybrid framework that honours both logical rigor and the expressive richness of non-propositional forms. In this chapter I have established the philosophical scaffolding for subsequent discussions, demonstrating how imagination and emotions can be harmonized with logical principles to enrich critical reasoning. By situating non-propositional representations as central rather than peripheral, Chapter 3 prepares the way for the aesthetic and emotional explorations of Chapters 4 and 5. It also introduces an understanding of how propositional and

non-propositional forms can coexist, offering a conceptual bridge that integrates diverse modes of reasoning into a unified framework.

Expanding upon the conceptual groundwork of Chapter 3, Chapter 4 goes into the roles of imagination, emotions, and feelings within aesthetic experiences. These faculties, often marginalized in traditional critical thinking discourse, emerge here as advantageous components of a more holistic reasoning process. By examining their operation within aesthetic contexts, this chapter illustrates their capacity to deepen understanding and foster creativity. It also builds on the representational framework from Chapter 3 to show how aesthetic principles can enhance critical thinking by engaging these often-overlooked dimensions. Furthermore, Chapter 4 demonstrates the possible practical benefits of integrating imagination, aesthetic attitude, and emotions into critical thinking. Imagination, when activated within aesthetic contexts, facilitates a creative engagement with problems. The aesthetic attitude—characterized by openness, curiosity, and attentiveness—provides a foundation for a more exploratory and inclusive approach to reasoning. Emotions, often dismissed in traditional critical thinking, are shown to play a crucial role in connecting abstract reasoning with lived human experience, fostering empathy and a deeper understanding of complex issues. By weaving these elements together, Chapter 4 reveals how critical thinking can be transformed into a richer and more holistic intellectual practice. It demonstrates that imagination, emotions, and aesthetic sensibilities are not merely supplemental to reasoning but integral to its full realization. This investigation not only bridges theoretical gaps but also lays the groundwork for practical applications that enrich intellectual engagement and problem-solving capabilities.

Chapter 5 serves as a demonstration of the specific applicability of the thesis's central arguments. While the preceding chapters explore critical thinking in general, discussing the application of aesthetic principles in intellectual reasoning and problem-solving, this chapter narrows its focus to one particular domain in which critical thinking is important: philosophical inquiry. By engaging with the concept of beauty in philosophical inquiry, Chapter 5 illustrates how the integration of imagination, emotions, and aesthetic principles can be applied to a specific context, offering a holistic and aesthetic lens for understanding and evaluating philosophical texts. Beauty, as an aesthetic concept, inherently relies on the interplay of imagination and emotions to be fully experienced and appreciated. Philosophical works, much like artistic creations, often embody qualities of clarity, coherence, and creativity that elicit a sense of beauty. In this chapter I have argued that to grasp the aesthetic dimensions of a philosophical work—such as its disruptiveness or precision—one must engage not only reason

but also the imaginative and emotional faculties. By situating beauty within this holistic framework, Chapter 5 demonstrates that the appreciation of philosophical beauty is not merely a cognitive act but an integrative experience that encompasses the full spectrum of human faculties. Drawing on the works of Milena Ivanova (2023) and Alice Murphy (2023), Chapter 5 highlights how aesthetic principles can function as criteria for philosophical evaluation. This discussion not only deepens the thesis's argument for an enriched framework of reasoning but also underscores the practical relevance of these principles beyond traditional critical thinking. By applying these ideas to philosophical texts, this chapter exemplifies the transformative potential of an inclusive and multidimensional approach to intellectual engagement.

Chapter 5 also bridges the theoretical foundations laid out in Chapters 3 and 4 with the thesis's overarching vision. It builds on the hybrid framework of propositional and non-propositional reasoning (Chapter 3) and the exploration of aesthetic attitudes and imagination (Chapter 4), demonstrating their application within philosophical inquiry. This linkage reinforces the interconnectedness of imagination, emotion, and logic, highlighting their combined power to deepen intellectual engagement. Additionally, Chapter 5 sets the stage for the culminating synthesis in Chapter 6, where the improvisational potential of this enriched framework is brought to the forefront. Together, these chapters illustrate the coherence and adaptability of the thesis's central claims, showing how an inclusive, aesthetic-infused model of reasoning resonates across various intellectual landscapes.

The final chapter brings the thesis to its culmination by introducing improvisation as a dynamic synthesis of critical and creative thinking. Improvisation embodies the holistic vision that animates this research, uniting logic, emotion, and imagination in a fluid and responsive mode of engagement. It demonstrates how these faculties, often treated as distinct or even oppositional, can interweave to produce a more adaptable and integrated form of reasoning. By situating improvisation as both a method and a metaphor, this chapter underscores the inseparability of criticality and creativity, showing how each enhances the other in the pursuit of understanding and creativity. Moreover, improvisation provides a practical embodiment of the thesis's philosophical commitments. It exemplifies how reimagined critical thinking can navigate complexity, foster innovation, and respond to the unpredictable demands of real-world problem-solving. Through this synthesis, Chapter 6 not only completes the theoretical arc of the thesis but also gestures toward its transformative potential in lived experience. It serves as a powerful illustration of how the integration of diverse faculties, logical, emotional, and imaginative, can offer a more comprehensive approach to critical thinking.

In extending the scope of critical thought into emotive and imaginative domains, I have drawn on a range of terms such as aesthetic sensibilities, aesthetic attitudes, aesthetic principles, emotions, feelings, imagination, intuition, and sentiment. These terms are not used interchangeably; neither have I given precise definitions of them. Instead, they reflect a constellation of related concepts that share a family resemblance. While some distinctions could be made more precise, such as between attitudes and principles, or between emotions and feelings, the aim here is not to establish rigid taxonomies. Rather, the purpose is to highlight the broader movement beyond narrowly analytical models of critical thought toward more integrative, experiential, and affective dimensions. To help orient the reader, one might think of a broad binary: on the one hand, analytical and logic-based dimensions of critical thought, and on the other hand, affective and experiential dimensions, where the above terms loosely cluster. It is acknowledged that within this latter category some slippages of terminology may occur. However, this does not undermine the central point, which is that critical thought is enriched when affective, imaginative, and aesthetic capacities are taken seriously alongside the analytical.

Chapter 1: Critical Thinking and Its Limits

In this chapter I have begun by outlining the standard approach to critical thinking, which predominantly emphasizes logical reasoning, structured analysis, and reflective judgment. Unlike fields such as philosophy of mind, epistemology, or cognitive linguistics, which are primarily research-driven, critical thinking is largely a pedagogical endeavour. Its core principles are shaped more by how it is taught than by active research programs. As such, textbooks and teaching materials play a central role in defining what critical thinking is and how it should be practiced. The first section will show how this approach tends to prioritize logic and argumentation, often overlooking imagination, creativity, and emotion. The aim is not only to describe the standard approach but also to assess its limitations—particularly how it frames emotions within the process of critical thinking.

The second section focuses on how emotions are typically presented in critical thinking textbooks, especially with reference to the 'appeal to emotion' fallacy. This section will demonstrate that emotions are frequently depicted as barriers to sound reasoning—seen primarily as sources of bias and error. To provide a broader perspective, the chapter will also engage with materials outside the generalist critical thinking canon that offer more constructive views of emotion in reasoning and decision-making. These sources will be from nursing, business, and psychology.

The final section explores how emotions might be included as a positive feature of critical thinking. Drawing on insights from aesthetics, it will argue that emotions, along with imagination and creativity, can support critical engagement. Emotions can help focus attention, deepen understanding, and provide motivation to grapple with complex or difficult issues.

In summary, in this chapter I have laid the foundation for reimagining critical thinking as a practice that integrates not only logical and analytical skills, but also the constructive potential of emotion and imagination. This shift opens the way for a more expansive and adaptable model of critical inquiry, which the following chapters will develop in greater detail.

1.1 The Standard Approach to Critical Thinking

In this section, I examine classical definitions of critical thinking, tracing the foundations of its contemporary formulation. I identify the most widely accepted definitions in the literature and discuss other influential contributions that have shaped the field.[1] Despite the diversity of perspectives, a consistent pattern emerges: the neglect of emotion and imagination in dominant accounts of critical thinking. This analysis highlights two persistent gaps in the literature: (1) the lack of substantive engagement with imagination, and (2) the reductive and predominantly negative treatment of emotions.

Before turning to the historical development of critical thinking, it is essential to clarify the concept of argument, a cornerstone of the standard critical thinking framework. For the purposes of this thesis, I define an argument as a set of statements in which one (the conclusion) is intended to be supported by the others (the premises). This definition emphasizes the intentional structure of reasoning: an argument exists when claims are offered with the aim of providing reasons for accepting a particular conclusion, regardless of whether those reasons are ultimately convincing. This intention-based account, widely adopted in critical thinking literature, allows for the inclusion of both successful and flawed reasoning as legitimate attempts at argumentation.

This working definition also lays the groundwork for a broader conception of argument that extends beyond formal logic. In traditional logic-driven approaches, the focus is on whether the premises and conclusions are linked through valid inference patterns, typically emphasizing propositional or syllogistic structures. However, as I will later demonstrate through Michael Gilbert's multi-modal theory of argumentation, arguments can be conveyed not only through propositions but also through emotional expressions, physical gestures, and intuitive insights. These alternative modes challenge standard accounts and call for an expanded understanding of what can count as a reason in argumentative discourse.

The origins of critical thinking are often traced back to Socrates, whose thought, showcased in Plato's dialogues, represents one of the earliest practices of critical reflection in philosophy (at least, one of the earliest such practices that we know about). Socrates encouraged individuals to examine their beliefs and ideas critically, a process that resembles basic reflective thinking. For example, in the *Apology*, when defending himself, he invited everyone to examine the

[1] See Ennis (1991); Siegel (1988); Facione (1990); Paul and Elder (2006); Kuhn (1999).

inconsistency of the accusations against him (Plato, 1997). Beyond this, many dialogues provide classic examples of the Socratic method, where Socrates draws out his interlocutors' underlying assumptions. In the *Euthyphro*, for instance, he questions Euthyphro about the nature of piety, revealing contradictions in Euthyphro's definitions. (Plato, 1997). Similarly, in the *Meno*, Socrates uses probing questions to explore whether virtue can be taught, exposing the limits of his companion's understanding. (Plato, 1997). However, this early form of critical thinking is not identical to the contemporary understanding of the term, which has evolved significantly since the early 20th century.

John Dewey is widely regarded as a foundational figure in the modern conceptualization of critical thinking. Dewey introduced the notion of thinking, defining it as:

"Thinking, for the purposes of this inquiry, is defined accordingly as that operation in which present facts suggest other facts (or truths) in such a way as to induce belief in the latter upon the ground or warrant of the former." (Dewey, 1910, pp. 8, 9).

Dewey's definition emphasizes two critical aspects: the active nature of reflective thinking and the careful evaluation of beliefs and arguments based on evidence and logic. (Dewey, 1910, pp.74). This laid the groundwork for the subsequent development of critical thinking as a systematic evaluative process, akin to what Dewey referred to as 'scientific thinking.' Dewey viewed reflective thinking i.e., critical thinking, as central for responsible citizenship, effective problem-solving, and meaningful education. He saw education as a space where individuals should be encouraged to develop habits of inquiry and open-mindedness. In his broader philosophy of pragmatism, Dewey emphasized the importance of experience, experimentation, and learning through doing. In this context, critical thinking is not just a mental skill but a mode of intelligent action—integrated into daily life and responsive to practical challenges.

Edward Glaser and Goodwin Watson's development of the *Watson-Glaser Critical Thinking Appraisal* in 1941 can be seen as building on key ideas from the pragmatist theories of inquiry put forward by John Dewey (1910). and Charles Sanders Peirce (Pierce,1877-8/1931). Dewey defined thinking as the active, persistent, and careful consideration of beliefs in relation to evidence and their consequences. Peirce, in turn, proposed a model of inquiry based on the scientific method, emphasizing doubt, hypothesis formation, and experimental testing. Glaser and Watson proposed a three-part model of critical thinking: a disposition toward reflective inquiry, knowledge of logical reasoning methods, and the ability to apply these methods effectively. Their model reflects Dewey's emphasis on intellectual habits and Peirce's

understanding of inquiry as a systematic, iterative process. Glaser and Watson helped establish critical thinking as a structured, evidence-based practice shaped by the pragmatist tradition.

A more recent and widely used definition of critical thinking is due to Robert Ennis: “Critical thinking is reasonable, reflective thinking that is focused on deciding what to believe or do” (Ennis 1985, 1991, 2011, pp.10). Ennis’s definition builds on the foundations laid by Dewey and later thinkers but introduces a more accessible and pragmatic framing. By emphasizing both belief and action, Ennis argues that critical thinking is not limited to abstract academic analysis—it is also relevant to everyday choices and professional judgments. His approach integrates cognitive skills such as analysis, inference, and evaluation with dispositions like open-mindedness, intellectual humility, and a willingness to reconsider one's views. Moreover, Ennis acknowledges that critical thinking often unfolds in complex social and ethical contexts, where decisions carry consequences beyond logical correctness. In doing so, he helps broaden the field to include values-based reasoning, political awareness, and the role of context in shaping good judgment.

Harvey Siegel (1988). introduced the concept of the critical spirit, emphasizing that critical thinking is not solely a matter of possessing cognitive skills such as analysis, evaluation, or logical reasoning. Rather, he argued that these skills must be accompanied by certain dispositions, habits, and character traits that reflect a deeper commitment to rational inquiry. The critical spirit involves intellectual virtues such as open-mindedness, fairness, intellectual courage, and a readiness to question authority or tradition when warranted. In this view, critical thinking is as much about *how* one approaches problems and engages with others as it is about *what* one knows or how well one reasons.

Siegel’s work marked a significant broadening of the concept by shifting attention to the motivational and ethical dimensions of thinking critically. He acknowledged that critical thinking is a normative ideal—something to be aspired to—not merely a set of procedures. While he continued to prioritize rationality as the guiding standard for thought, Siegel recognized that reasoning occurs within emotional, social, and cultural contexts, and that the willingness to engage in rational discourse requires affective commitments and a certain intellectual character.

Similar to Siegel, Matthew Lipman (1991). further contributed to the evolving conception of critical thinking by emphasizing its *context-sensitivity*. He argued that while critical thinking involves reasoning and evaluation, the criteria by which we assess arguments, beliefs, and

actions are not fixed or universally applicable in all situations. Instead, these criteria may shift depending on the social, cultural, or disciplinary context in which thinking occurs. For Lipman, this recognition introduced a layer of complexity to critical thinking. Lipman's perspective was grounded in his work in philosophy for children, where he sought to cultivate reasoning skills from a young age by encouraging dialogue, reflection, and collaborative inquiry. In this setting, he observed that effective thinking was often shaped by the dynamics of conversation, the specific problems at hand, and the values embedded in particular communities. As such, he argued that critical thinking should not be treated as a context-free, purely abstract exercise, but rather as a situated practice that adapts to the demands of different environments.

A significant milestone in the literature on critical thinking is Peter Facione's comprehensive report *Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction* (1990), funded by the American Philosophical Association. This report resulted from the *Delphi Project*, which convened a panel of interdisciplinary experts to develop a shared understanding of critical thinking. Facione defined critical thinking as "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference" (Facione, 1990, pp. 2). This definition presents critical thinking as a deliberate, reflective process aimed at forming reasoned judgments that can guide both beliefs and actions. Facione's work stands out for its thorough synthesis of earlier definitions, incorporating elements from Dewey's reflective thinking, Ennis's emphasis on practical decision-making, and Siegel's focus on intellectual dispositions. He identified a set of core cognitive skills—such as interpretation, analysis, inference, explanation, and evaluation—alongside important affective dispositions like open-mindedness, inquisitiveness, fair-mindedness, and a readiness to consider alternative perspectives. This dual focus offered a more integrated view of critical thinking that includes both the ability to reason well and the willingness to engage in reasoning in a consistent and thoughtful manner.

Richard Paul introduced the distinction between 'strong' and 'weak' critical thinking, emphasizing the importance of self-regulation in the thinking process (Paul, 1991 pp.4). Weak critical thinkers often apply critical thinking skills selectively, using them to defend their own beliefs or critique opposing views without subjecting their own assumptions to scrutiny. In contrast, strong critical thinkers consistently apply the same standards of evaluation to their own beliefs as they do to others', engaging in disciplined self-reflection and being open to revising their views. This distinction highlights that critical thinking is not only about assessing

external arguments but also about cultivating an ongoing, reflective evaluation of one's own thinking.

Before we go into the analyses of the textbooks, the difference between theoretical works of critical thinking and the textbooks should be made. Unlike theoretical works (such as those by Richard Paul), which aim to develop or critique the conceptual foundations of critical thinking, textbooks are designed for teaching and are thus central to how critical thinking is practiced in real-world educational settings. Given the widespread integration of critical thinking into secondary and tertiary curricula, textbooks play a defining role in shaping students' understanding of what critical thinking involves. Thus, it is appropriate for my purposes to focus my analysis on textbooks.

It can be said that a consistent theme emerges across the evolution of critical thinking textbooks: minimal attention given to imagination, emotion, and creativity. As we will see below, critical thinking textbooks often reinforce this standard approach by framing emotions predominantly as obstacles to rational thought, particularly through discussions of informal fallacies such as the 'appeal to emotion.' While some scholars like Vincent Ryan Ruggiero (2007) and Fisher (1997). acknowledge the role of imagination and creativity in critical thinking, this perspective is not yet fully integrated into the standard model. Addressing these gaps could lead to a more holistic approach to critical thinking, one that recognizes the potential of emotional and imaginative faculties in enhancing reflective thinking and problem-solving.

In the next section, I will examine how emotions are treated in the standard approach, particularly through the lens of the "appeal to emotion" fallacy, and how this perspective contributes to the two gaps identified in my research: (1) an absence of substantive engagement with imagination, and (2) a reductive and predominantly negative treatment of emotions.

1.2 How Emotions Features in the Standard Approach to Critical Thinking: The Fallacy of Appeal to Emotion.

The standard approach emphasizes logic, reason, and structured analysis, often sidelining or minimizing the role of emotions in critical thinking processes. When emotions are mentioned, it is predominantly through the lens of the "appeal to emotion" fallacy.

The "appeal to emotion" fallacy is an informal fallacy that occurs when an argument attempts to persuade by triggering emotional responses—such as fear, pity, anger, or pride—instead of offering logically relevant reasons or evidence in support of its conclusion. This fallacy diverts

attention from the merits of the argument itself by appealing to the audience's feelings rather than their rational judgment. Critical thinking textbooks often dedicate significant attention to this fallacy, emphasizing how emotional influence can cloud judgment and obstruct rational analysis. The consistent message across the literature is that emotions are more likely to mislead than to aid critical thinking. For instance, in *Critical Thinking: A Student's Introduction* (2002), Bassham et al. emphasize the dangers of the emotional power of words, warning readers about the manipulative potential of emotions in argumentation. This perspective is echoed in many other critical thinking textbooks, reinforcing a one-dimensional view of emotions as barriers to clear and logical thought.

It is important to distinguish between domain-general and domain-specific critical thinking approaches. Domain-general critical thinking textbooks aim to teach reasoning and argumentation skills that apply broadly, across disciplines, without embedding them in a particular subject area. These works focus on transferable tools for evaluating arguments, recognizing fallacies, and structuring reasoning. In contrast, domain-specific critical thinking materials—such as those used in nursing, psychology, or business—integrate critical thinking instruction within the unique demands, contexts, and knowledge frameworks of a particular field. While both kinds of texts aim to foster rigorous intellectual engagement, their scope, methods, and assumptions can differ significantly. This thesis primarily engages with domain-general critical thinking frameworks but draws on insights from domain-specific contexts where they illuminate the integration of imagination, emotion, and aesthetics into reasoning.

To explore how these textbooks present imagination, creativity, and emotions, I surveyed 20 critical thinking textbooks. The table that summarises my results can be found in Appendix 1. The keywords in the table—such as *imagination, creativity, emotions, creative thinking*, *emotive force*, *intuition*, *perception*, *aesthetic reasoning*, and *curiosity*—were selected based on their relevance to broader cognitive and affective dimensions of thought that I hypothesise are often marginalized in the standard model. These terms help reveal whether the texts treat such elements as valuable tools for critical engagement or as obstacles to be avoided. By tracking these keywords across a range of widely adopted texts, the table highlights recurring patterns and silences in how critical thinking is framed, offering insight into the pedagogical assumptions that underlie the general approach.

My survey suggests that only 3 out of 20 textbooks explicitly examine the possible contributions emotions might make to critical thinking. The majority of textbooks either ignore emotions or portray them primarily as threats to reasoning. For example, Stewart E. Kelly's

Thinking Well (2001, pp.46). treats emotions as barriers that must be silenced or set aside for proper analysis, and M. Neil Browne and Stuart M. Keeley's *Asking the Right Questions* (2007). similarly warns that emotions need to be controlled to avoid distorting the reasoning process. Trudy Govier's *A Practical Study of Argument* (2009) describes emotions as distracting and dangerous, reinforcing the idea that critical thinking relies on emotional detachment. Many other works, such as Theodore Schick and Lewis Vaughn's *How to Think About Weird Things* (2005), warn against trusting intuition, sense perception, and personal experience, viewing them as unreliable and easily distorted by emotional influence. Similarly, Bruce N. Waller's *Critical Thinking: Consider the Verdict* (1998) makes no mention of emotions at all, implicitly reinforcing a purely rational model, while Richard L. Epstein's *Critical Thinking* (1999) and *Five Ways of Saying "Therefore"* (2002) mention emotion only in the context of excessive emotion being a barrier.

However, a small number of exceptions offer a more integrated or balanced perspective. One notable example is Vincent Ryan Ruggiero's *The Art of Thinking: A Guide to Critical and Creative Thought* (2007), which proposes that thoughts and feelings should work harmoniously rather than in isolation (Ruggiero, 2007, pp. 87). While the title itself sets critical and creative thinking apart, Ruggiero emphasizes their interdependence, suggesting that emotions—often linked to curiosity, imagination, and playfulness—are essential to developing ideas and expressing insights. He connects emotions to focus, intuition, and the exploratory aspects of thinking, presenting them as active contributors to intellectual work. Another example is Bruce R. Reichenbach's *Introduction to Critical Thinking* (2001), which, while cautious about emotive force, explicitly identifies creative thinking as crucial for problem-solving, signalling a more balanced view. Joe Y. F. Lau's *An Introduction to Critical Thinking and Creativity* (2011) similarly explores the detailed processes of creativity and imagination, although it still tends to frame emotional connotation as a barrier to reasoning.

This portrayal appears frequently across the texts surveyed. Trudy Govier's *A Practical Study of Argument* (2009) describes emotions as harmful to careful reasoning (Govier, 2009, pp.77). Bruce Reichenbach (*Introduction to Critical Thinking*, 2001) and Merrilee H. Salmon (*Introduction to Logic and Critical Thinking*, 2013, pp. 65) warn against the effects of emotive force in argumentation, suggesting that emotion tends to distort rather than support reasoning. Even where some recognition is given to the possible value of emotion—as in Stephen S. Carey's *The Uses and Abuses of Argument* (2000)—the emphasis remains on its risks, particularly its potential to manipulate. Richard L. Epstein's two works (*Critical Thinking*,

1999; *Five Ways of Saying "Therefore"*, 2002) mention appropriate and inappropriate uses of emotion but stop short of showing how emotions might be part of reasoned thinking. Similarly, Joe Lau's *An Introduction to Critical Thinking and Creativity* (2011) includes a developed discussion of creativity and imagination, explaining their processes in some detail. Yet even here, emotions are primarily defined in terms of their dangers to reasoning, often described as interfering with clarity and open-mindedness (Lau, 2011, pp. 216).

Imagination and creativity are given slightly more attention, but they too are often treated as secondary or peripheral. Aside from Ruggiero and Lau, very few authors give them a meaningful place in their overall model of thinking. Alec Fisher and Michael Scriven's *Critical Thinking: Its Definition and Assessment* (1997) acknowledge a relationship between critical and creative thinking, but their approach remains focused on standard definitions that exclude broader mental activity. J. Anthony Blair's edited volume *Studies in Critical Thinking* (1997) introduces the concept of "critico-creative thinking," pointing out that imagination and creativity are important for thinking well. (Blair, 1997, pp.22). However, this view does not appear in most of the other textbooks. In texts such as Matthew Allen's *Smart Thinking* (2004), and Steven P. Lee's *What is the Argument?* (2002), there is no discussion of these features at all. These works prioritize formal structure, clarity, and logic, presenting thinking as a technical and rule-based activity.

Even where some of these concepts are mentioned, their presence is limited and does not alter the overall picture. For instance, Brooke Noel Moore and Richard Parker's *Critical Thinking* (2008) includes references to aesthetic reasoning and admits that emotive force can play a role in drawing attention. (Moore and Parker, 2008, p.188) Yet these observations are not developed further. Likewise, Stella Cottrell's *Critical Thinking Skills* (2005) recognizes that emotions can interfere with reasoning, (Cottrell, 2005, pp.5) and Stuart Hanscomb's *Critical Thinking: The Basics* (2017) allows that emotions are not always irrational but may still lead to trouble if they are wrongly directed. (Hanscomb, 2017, pp.26). These more open approaches are uncommon and do not change the fact that the vast majority of textbooks in the table treat critical thinking as a method that must be protected from emotional, imaginative, and creative influences.

In summary, the analysis of my survey results demonstrates that most critical thinking textbooks exclude imagination, emotion, and creativity from their frameworks. Although a few authors challenge this exclusion, their approaches remain isolated and underdeveloped. The general model emphasizes analysis, structure, and detachment, overlooking how people think when solving problems, engaging with others, or reflecting on complex issues. As a result,

students are taught to reason in ways that are emotionally restricted and lacking in creative flexibility. These findings point to the need for a broader conception of critical thinking that includes a fuller range of cognitive processes.

I will now look at other sources that discuss critical thinking and see how they mention and discuss emotions and imagination.

1.3 Sources Other Than Critical Thinking Textbooks

In formal logic textbooks, discussions of argumentation are often minimal or highly constrained, typically limited to principles of valid inference and formal argument structures. To separate these texts from critical thinking textbooks, I should note that they tend to present critical thinking as synonymous with logical correctness, without engaging broader dimensions such as evaluation of informal arguments, the role of context, or the cognitive processes involved in everyday reasoning. Both *The Power of Logic* and *Logic: A Complete Introduction* emphasize the role of logic in enhancing critical thinking skills. (Howard-Snyder, Howard-Snyder, & Wasserman, 2009; Lee, 2017). Linguistic cues such as a focus on "validity," and "soundness," as opposed to terms like "bias," "credibility," or "assumption," suggest a narrower conception of critical thinking when compared to more pedagogical critical thinking textbooks.

The results of my survey of six formal logic textbooks can be found in the Appendix in Table 2. It shows a consistent exclusion of emotion across widely used formal logic textbooks. All six works treat emotional language and affective expression as incompatible with clear reasoning. Emotional content is either dismissed as irrelevant or actively marked as a threat to logic. This reinforces the separation between emotion and reason already observed in my survey of critical thinking textbooks, but with even greater rigidity. Patrick J. Hurley's *A Concise Introduction to Logic* (2000) avoids emotive language due to its value-laden nature, suggesting that any emotional content compromises neutrality. (Hurley, 2000, pp.113). Irving M. Copi, Cohen and McMahon's *Introduction to Logic (*2013) separates emotive force from cognitive meaning, arguing that emotional expression interferes with logical insight. (Copi, Cohen, & McMahon, 2013, pp.68). This distinction is echoed in Harry J. Gensler's *Introduction to Logic* (2011), which warns against emotional language on the grounds that it disrupts clear reasoning. Gensler also claims that emotional statements undermine logical insight and should be avoided for the sake of clarity. (Gensler, 2011, pp.35).

Frances Howard-Snyder, Daniel Howard-Snyder, and Ryan Wasserman's *The Power of Logic* (2009) takes a similar position. It defines emotional statements as obstacles to understanding

and treats emotive force as separate from the reasoning process. (Howard-Snyder, Wasserman, 2009, pp.109). Merrilee H. Salmon's *Introduction to Logic and Critical Thinking* (2013) describes emotions as fallacies and as nonrational elements of human life. (Salmon, 2013, pp.30) Siu-Fan Lee's *Logic: A Complete Introduction* (2017) identifies emotional appeals as rhetorical moves, not as legitimate contributions to reasoning. (Lee, 2017, pp.40). Across all these works, the message is consistent: emotions are disruptive and must be controlled or excluded. Unlike some of the textbooks in my first survey that mention creativity or imagination, the textbooks in the second survey make no reference to such features at all. There is no indication that imaginative or emotional engagement might contribute to logical thinking. The focus remains on formal structure, clear definitions, and precision. This approach encourages students to think in abstract and detached ways, without reference to the wider mental processes that influence how people actually reason.

Literature on critical thinking also appears within specific practical disciplines such as psychology, nursing, and business, where it emphasizes distinct applications of critical thinking and often adapts or modifies the concept to suit the needs of that particular field. The results of my survey, which includes 4 nursing books, 4 psychology books, and 2 business books, are presented in Table 3 in the Appendix. Although the sample size is relatively small, the selection reflects a diverse range of critical thinking texts. This variety was intentional because I wanted to examine how different disciplinary contexts, each with its own goals and practical applications, address imagination and emotion in their approaches to critical thinking. Firstly, I will consider critical thinking in nursing. Because of the emotionally demanding nature of nursing, and the interpersonal skills required for being a good nurse, critical thinking books on nursing take emotions as a useful tool for understanding patients. The key term they emphasize is empathy. They take empathy as a beneficial capacity for understanding both patience and nurses themselves. Jane Bottomley and Steven Pryjmachuk (2018) emphasize the importance of reflecting on one's feelings during the practice of nursing. They suggest nurses describe their emotions and feelings to themselves, reflect on them, and try to understand their feelings so that they can understand patients' feelings. This is a part of critical thinking according to Bottomley and Pryjmachuk. (Bottomley and Pryimachuk, 2018, Chapter 4). The other common point that is discussed in nursing critical thinking books is the concept of *gut feeling.* Eileen Gambrill discusses the role of gut feeling in nurses and how it is important to reflect on it (2012). Instead of avoiding or taking it as an obstacle, she says that we can use it after reflecting on it critically. (Gambrill, 2012, pp.25).

When it comes to critical thinking books that are written for psychology students, we see an emphasis on emotional well-being. These books emphasize the effect of emotional well-being on our capacity for critical thinking. Craig Newnes and Laura Golding call these *psycho-emotional effects* (2018, pp.99). They suggest that students should be thinking about their emotions and re-evaluating their emotions to increase their critical thinking capacities. Being able to reflect on one's emotions to enhance one's emotional well-being is taken as a skill of critical thinking. Using art and culture is suggested to increase students' emotional well-being. (Newnes and Golding, 2018, pp.112). Other than emotions, imagination is also discussed as an aid to think critically, but again it is not elaborated.

One would think that critical thinking books in the field of business would emphasize only rational decisions and careful analyses of the cases before making a financial or managerial decision. However, this is not the case. In *Critical Thinking for Managers: Structured Decision-Making and Persuasion in? Business* (2021) Radu Atanasiu includes a discussion on the other aspects of thinking like intuitions, subconscious influences, and emotions. He argues that we should be concerned about the roles of these and find out their relationship with reason. He takes them as 'co-operating subsystems in the human-decision-making machine' (2021, pp.43). We also encounter a similar discussion on reflecting on one's gut feeling when deciding on a business. Atanasiu advises us to justify our gut feeling through evaluation and analyses, and if our gut feeling is supported by evidence, then we can go for it. In another book that is focused on business and communication, Edward S. Inch and Kristen H. Tudor argue that the emotional usage of language can be a beneficial tool to express oneself, but they also warn us that emotions should not cloud our reason. (2015, pp.131). Instead of viewing emotions solely as obstacles to reasoning, they highlight the valuable role of emotions in enriching and expressing our understanding. Although business books that discuss critical thinking mention my keywords, such as emotions, intuition or gut feeling, the discussion of them is not very detailed.

While general critical thinking textbooks tend to mention emotions, imagination, and creativity only briefly or not at all, critical thinking texts in business, psychology, and nursing often provide more meaningful and positive engagement with these concepts, even if not in great detail. This suggests that applied disciplines are more open to acknowledging the relevance of emotional and imaginative capacities in critical thinking. Even though they are not sufficient to fill the two gaps in the literature on critical thinking that are mentioned above, they point out the positive potentialities of imagination, emotions, and creativity for critical thinking. After examining both standard approach critical thinking books and other texts, it is evident that two

significant gaps persist in the literature. The first gap is the underdeveloped treatment of imagination and creativity. While these elements are occasionally acknowledged as beneficial, they are rarely explored in depth, leaving their full potential unexamined. The second gap concerns the treatment of emotions, which are not only underexplored but are also predominantly framed in negative terms, often reduced to the notion of the appeal to emotion fallacy. This perspective reinforces a limited view of emotions as barriers to rational thought. The nursing textbooks are an exception here: they display a more positive approach to emotions. In the next chapters, I will build on this positive approach to emotions in the context of critical thinking.

These two gaps highlight a need to broaden the standard approach to critical thinking by integrating imagination, creativity, and a better understanding of emotions. In the next section, I will discuss how this integration can be achieved, proposing strategies to transform these gaps into opportunities for enhancing critical thinking as a more holistic and effective practice.

1.4 How We Could Incorporate Emotions as A Positive Feature of Critical Thinking

The previous sections have established that the standard approach to critical thinking often emphasizes logic and structured analysis, treating emotions primarily through the lens of the "appeal to emotion" fallacy. This has resulted in a predominantly negative portrayal of emotions as obstacles to rational thought, contributing to a significant gap in how critical thinking is conceptualized and taught.

The main aim of this thesis is to address these gaps by proposing a more holistic model of critical thinking. This model integrates not only cognitive and analytical skills but also the valuable contributions of emotions, imagination, and creativity. The argument version of this rationale is as follows:

P1. The aims of critical thinking include deep understanding, careful assessment and evaluation of arguments, raising insightful questions, thinking open-mindedly, and presenting ideas clearly and logically.[2]

P2. Traditional approaches to critical thinking often exclude emotions, imagination, and creativity from their frameworks.

[2] Critical thinking is variously conceived as aiming at sound judgment (Ennis 1991; Facione 1990a), as an educational and moral ideal concerned with autonomy and fairness (Siegel 1988; Paul 1984), or as a practical reasoning ability suited to real-world decision-making and dialogic engagement (Halpern 1998; Kuhn 2019).

P3. If certain capacities (such as emotions, imagination, and creativity) contribute to achieving the aims of critical thinking, then excluding them limits the effectiveness of critical thinking.

P4. Emotions, imagination, and creativity do in fact contribute to achieving the aims of critical thinking.

P5. The field of aesthetics shows how emotions, imagination, and creativity enrich thinking and perception, providing a fruitful perspective for understanding their role in critical thinking.

C. Therefore, critical thinking would better achieve its aims if it were reconceptualized through a more holistic model that integrates cognitive skills with emotions, imagination, and creativity.

The core argument here is that critical thinking, at its best, enhances our intellectual engagement with the world by promoting open-mindedness, careful analysis, and reasoned judgment. However, these goals may be more fully realized if critical thinking also engages with the emotional and imaginative dimensions of human cognition. While traditional approaches often view emotions as potential sources of bias, this section argues that emotions can also serve as valuable tools for enhancing understanding, empathy, and insight.

Aesthetics, as a discipline, demonstrates how emotions and imagination can positively influence perception and interpretation. Emotions are not merely distractions but play an active role in guiding attention, enhancing engagement, and shaping how meaning is constructed. For example, in aesthetic experiences—whether through art, literature, or nature—emotions can help us focus on particular aspects of an experience, such as the mood of a painting or the emotional arc of a story. Imagination, similarly, allows for creative exploration, envisioning possibilities, and developing creative solutions to problems.

Applying these insights to critical thinking suggests that emotions could enhance critical engagement by promoting curiosity, empathy, and deeper insight. For example, feelings of curiosity can drive inquiry and sustained attention, while empathy can help critically assess arguments from diverse perspectives. These emotional states can provide critical thinkers with additional tools to navigate complex issues effectively. Moreover, by examining how emotions and imagination operate in aesthetic experiences, we can identify strategies to apply these faculties within critical thinking practices. The way imagination provides creative problem-solving in artistic contexts could translate into innovative thinking within academic or real-

world scenarios. Similarly, the constructive role of emotions in focusing attention during aesthetic experiences could inspire new approaches to help critical thinkers maintain clarity and relevance when analysing complex arguments.

Ultimately, integrating emotions into critical thinking would not only address the cognitive and rational dimensions of thought but also create a richer, more adaptable model. This approach aligns with the broader aims of critical thinking by promoting a deeper and more holistic understanding of the world. It challenges the traditional assumption that critical thinking must be a purely rational process, proposing instead that emotions, when properly managed, can contribute meaningfully to critical reasoning.

In this chapter I have laid the groundwork for a reconceptualization of critical thinking—one that embraces both the logical and emotional aspects of human cognition. By bridging insights from aesthetics to critical thinking, this thesis aims to propose a more comprehensive and creative model, enhancing the discipline's relevance and applicability in diverse contexts.

Conclusion

In this chapter I have examined the development of critical thinking (CT) as an educational endeavour, focusing on how the standard approach emphasizes logic, structured analysis, and reflective judgment. It began by exploring foundational and contemporary critical thinking texts, highlighting the common focus on logical reasoning and the often-limited discussion of imagination, creativity, and emotions.

Through an analysis of a broad range of critical thinking textbooks from various disciplines—such as nursing, business, and psychology—it became evident that while some texts mention imagination and creativity as beneficial to critical thinking, these discussions are typically underdeveloped. Moreover, emotions are predominantly portrayed negatively through the lens of the 'appeal to emotion' fallacy in the critical thinking textbooks, reinforcing the notion that emotions hinder rather than support critical reasoning.

The chapter also incorporated insights from sources beyond traditional critical thinking textbooks to gain a broader perspective on how emotions are discussed in the context of reasoning and analysis. This analysis revealed that the standard approach often overlooks the constructive roles that emotions and imagination could play in enhancing critical thinking.

Two significant gaps were identified: first, the lack of thorough exploration of imagination and creativity within critical thinking literature, and second, the one-sided and often reductive

treatment of emotions. The chapter proposed that drawing on insights from aesthetics could offer a way to integrate these elements into a more holistic model of critical thinking.

In conclusion, in this chapter I have laid the groundwork for a broader philosophical project to reimagine critical thinking as a practice that not only values logical and analytical skills but also embraces the constructive potential of emotions and imagination. Specially, nursing textbooks provided us a pathway to build on the positive approach to emotions on the context of critical thinking. The subsequent chapter will build on these findings by exploring contemporary approaches to critical thinking, evaluating whether they address these identified gaps, and proposing new avenues.

Chapter 2 - Transformative Developments of Critical Thinking in the Literature[3]

In this chapter, I examine contemporary approaches to critical thinking to assess their relevance to my research and evaluate whether they address the two key gaps I have identified. Those gaps are (1) lacking discussion of imagination and creativity in the literature, (2) unelaborated and negative discussion of emotions. I also consider how these approaches diverge from traditional conceptions of critical thinking. I conclude that, although they offer more than the traditional approaches discussed in Chapter 1, they still do not fully address the gaps. Nevertheless, they provide a solid foundation for me to build upon.

Among the various contemporary views on critical thinking, two stand out as especially relevant for bridging the identified gaps. The first is the inquiry **a**pproach developed by Sharon Bailin and Mark Battersby. Their framework seeks to move beyond narrow conceptions of critical thinking by incorporating contextual, interactional, and dialogical factors. Through an inquiry-based model, they emphasize the real-world applicability of critical thinking by encouraging the construction and evaluation of arguments within context-sensitive dialogues. I begin by examining their inquiry approach and its relevance to expanding the critical thinking framework.

The second is Michael Gilbert's multi-modal theory of argumentation, which reimagines critical thinking beyond the constraints of the traditional Critical-Logical (CL) approach. Gilbert critiques the CL view for its narrow focus on analysis and error detection, arguing instead for an understanding-based model of reasoning. He introduces four modes of argumentation—logical, emotive, visceral, and kisceral—to reflect the complex ways people actually engage in discourse. While Gilbert's framework expands the scope of critical thinking by including emotional and non-traditional elements, it pays less attention to the roles of creativity and imagination. Nonetheless, his work marks a significant departure from logic-dominated models and partially addresses the gaps I have identified.

[3] A version of some of the material in this chapter has been published as Yazici (2025)

After analysing the contributions of Bailin and Battersby and Gilbert, I propose a middle ground that preserves the value of logical structure while integrating the affective and personal dimensions highlighted by Gilbert. To do this, I suggest drawing on Bertrand Russell's concept of knowledge by acquaintance, which offers a way to incorporate experiential and imaginative elements into a broader conception of critical thinking without sacrificing the logical backbone.

Additionally, I explore the issue of propositionality within multi-modal arguments, drawing on relevant literature to provide deeper insights. Understanding propositionality is central for analysing arguments that are not expressed in a strictly propositional form. The issue of propositionality concerns whether arguments consist solely of propositions or can include non-propositional elements. This discussion lays the groundwork for considering the possibility of non-propositional arguments. In the next chapter, I will further examine propositional and non-propositional representations, establishing a foundation for envisioning arguments in non-propositional forms. This approach will enable us to incorporate emotions and imagination into critical thinking processes, as these elements are often expressed through non-propositional means.

In summary, I have emphasised contemporary perspectives on critical thinking, focusing on key shifts in the literature and examining their contributions to addressing the previously identified gaps. It concludes that, while these approaches offer valuable insights, they do not fully resolve the gaps outlined in the preceding chapter.

2.1 Inquiry Approach: Sharon Bailin and Mark Battersby

In their book *Reason in the Balance: An Inquiry Approach to Critical Thinking* (2016), Bailin and Battersby introduce the contextual and dialectical approach to critical thinking. They regard critical thinking as an active process of inquiry into a subject, rather than as a purely formal procedure. By doing so they aim to emphasize the importance of three factors that are not emphasized in the traditional literature. First is the context of an argument. The second is interactive, i.e., the dialectic aspect of arguing. The third is the existence of different epistemological norms rather than just the norms of logic. They argue that we should not isolate arguments but consider them within their specific contexts because context reveals the intentions, assumptions, and background knowledge that shape how arguments are constructed and interpreted. Evaluating arguments in context allows for a more accurate assessment of their relevance, strength, and purpose, especially in real-life situations where meaning is often

shaped by interpersonal, cultural, or situational factors. It can be said that they transform critical thinking into something that enables better applicability of it to everyday life. They think this is a gap in the literature and must be included in any discussion of critical thinking.

Battersby, in his article *Critical Thinking as Applied Epistemology: Relocating Critical Thinking in the Philosophical Landscape* (originally published 1989), argues against the traditional conception of informal logic in critical thinking. He thinks that informal logic is a set of logical rules that can be applied to real-life cases. But when it is applied, it becomes applied epistemology rather than informal logic. What Battersby refers to as *applied epistemology* involves using epistemological norms that are shaped by the specific context of an argument. Rather than applying universal principles in a fixed or mechanical way, applied epistemology requires attention to the particular judgments and standards that are relevant in each case. For example, when evaluating the reliability of an eyewitness in a legal trial, we rely on criteria like consistency, memory reliability, and corroboration, which differ from the norms we might use when assessing a scientific hypothesis. Battersby argues that in each situation, different epistemological judgments come into play. As he explains, "it is not an algorithmic application of well-established epistemological norms, but rather an argument which focuses on a particular set of judgments and, using epistemological reflections, supports a skeptical position on claims of this type" (1989, pp. 97). He is criticizing the concept of critical thinking which is understood as the algorithmic application of well-established epistemological norms. In that sense, we can say that Battersby's aim with *Critical Thinking as Applied Epistemology* is to open it up to different epistemological norms by paying attention to the environmental conditions of an argument.

From a similar perspective, Bailin in her essay *Is Argument for Conservatives? Or, Where Do Sparkling New Ideas Come From?* (2003), develops a constructive approach to critical thinking. She first criticizes Richard Rorty's distinction between analytic and creative thinking. Rorty argues that a distinction should be drawn between analytic thinking, which involves argumentation, evaluation, and analyses, and creative or imaginative thinking. Bailin denies this distinction and argues that while we are evaluating an argument, we should be creative as well. She says that critical and analytic thinking are not algorithmic as they require creativity. Although we have principles and rules coming from logic, when we are applying these to real-life cases, we generate new ideas. To be able to generate new ideas that are applicable to the case in hand, we need creativity as well as the logical rules. For instance, in a medical ethics case, a doctor may use logical reasoning to weigh the principles of autonomy and beneficence,

but crafting a solution that respects both—such as designing a patient-centred care plan that also ensures safety—requires creativity. From that, she concludes that a critic is also a constructor. In her words: 'Such construction must, however, conform to all the critical standards that guide evaluation. Moreover, the constructor must recognize any logical vulnerabilities in the argument. The constructor is, then, simultaneously a critic. The critic makes an imaginative contribution to the assessment in all the ways previously described and must be able to construct a cogent argument to support the critique. *The critic is, then, simultaneously a constructor.* (2018, p. 364) (Emphasis is mine.) Bailin wishes to close the gap between the two by pointing out that in analytic critical thinking, there is a role for construction and creation. With that, she adds something new to the definitions of critical thinking. In the traditional literature, it is always defined by the emphasis on the analytic features of critical thinking. By pointing out the creative aspect of argument construction, she prepares the ground for me to transform critical thinking by adding aesthetic features in it such as emotions, senses, and imagination.

In summary, the inquiry approach has four benefits for my research. The first is that it aims to make arguments contextual by pointing out the various factors that influence an argument. This is important because those factors include aesthetic factors too. The second is the emphasis on the interactive nature of critical thinking. This will be important because it signals the improvisatory nature of arguing which is the topic of the last chapter of this thesis. The third is that it paves the way for considering different modes of thinking critically rather than only the traditional view, opening the door to including imagination and emotions in critical thinking. Lastly, Bailin's emphasis on construction of ideas is also important: she draws attention to the interconnection between creative and critical thinking which will be discussed in the last chapter.

In the next section I will discuss Michael Gilbert's theory of multi-modal arguments, which relates to the third factor; the inclusion of different modes of thinking.

2.2 Michael Gilbert

'A kiss, a look, a touch, a feeling, may be an argument, provided it is communicated in a dissensual interaction.' (1997, p.79)

In standard critical thinking theory, the term *argument* is defined narrowly as a set of statements in which some (the premises) are intended to support another (the conclusion). This formal structure allows for logical analysis and evaluation based on validity, soundness, and clarity.

Importantly, this use of *argument* departs from the everyday sense of the word, which often refers to a verbal dispute or disagreement between individuals. Michael Gilbert challenges this separation by reintroducing the interpersonal and conflict-based sense of argument into the discussion with the use of the term “dissensual interaction”. For Gilbert, argument is not confined to abstract reasoning but includes emotional, physical, and contextual dimensions, gestures, tone, and body language, for example. So, what makes an interaction an *argument* (rather than mere communication) is the presence of disagreement or tension. Without this conflict, expressive acts like gestures would be interpreted as communicative, not argumentative.

In Gilbert’s article titled "Multi-Modal Argumentation" (1994), he elucidates his definitions of "argument" and "mode." He adopts Charles Arthur Willard’s definition of argument as "a form of interaction in which two or more people maintain what they construe to be incompatible positions" (Willard, 1989, pp.1). Gilbert expands on this concept, proposing that argument essentially involves communication in the presence of disagreement. He explicitly declares his focus: not on establishing sufficient standards of argument, but on understanding the nature of argumentative interactions.

Gilbert wishes to elaborate on different modes of argument to make argumentation theory and critical thinking useful in real life. Gilbert thinks that these different modes are used in real life, so we are going to encounter them. Rather than trying to reduce them all to logical and verbal form, he argues that in order to avoid losing any of the meaning of arguments in non-standard modes, we need to develop ways to understand them in the form in which they are expressed.

In addition to linguistic or logical arguments, Gilbert identifies three other modes of argument: emotive, visceral (physical, environmental, contextual, unconscious), and kisceral (intuitive, non-sensory, insight-driven). Emotive arguments ‘demonstrate how we feel about certain claims or aspects of the argumentation procedure and communicate emotional reactions through a variety of means to a dispute partner. ’[Visceral] arguments are primarily physical and can range from a touch to classical nonverbal communication, i.e., body language, to force.’ (Gilbert, 1997 pp. 84) The last and most controversial mode[4] is the kisceral mode. Gilbert defines the kisceral mode as ‘that mode of communication that relies on the intuitive, the imaginative, the religious, the spiritual, and the mystical.’ (Gilbert, 1997 pp. 86). Now let me

[4] For example, Marko Novak (2022) discusses how kisceral arguments could or could not be used in legal contexts; Christopher Tinsdale (2022) offers a perspective on how kisceral arguments can be understood as communicative tools rather than arguments in the strict sense.

expand on each mode of argumentation, starting with emotive arguments. Critical thinking and argumentation are deeply interconnected. Critical thinking is often defined in terms of the ability to evaluate claims, consider evidence, and form well-reasoned judgments. Argumentation, meanwhile, is the structured process through which reasons are presented, assessed, and contested. The relationship between the two is that argumentation provides the material for critical thinking, while critical thinking provides the evaluative framework for argumentation. In other words, critical thinking is the toolset with which we evaluate arguments, and the arguments are the products of our thinking that we put forward to make a claim.

2.2.1 The Emotive Mode

The emotive mode of argumentation relies on the expression of or appeal to emotion as its primary means of persuasion. Unlike the logical mode, which structures reasoning through abstract premises and conclusions, the emotive mode conveys how a person feels about a claim and uses that feeling as a form of justification.

Gilbert explains that emotions often shape the way people argue, particularly in personal or high-stakes situations. Emotional arguments may be expressed through words (such as "I'm scared" or "This means a lot to me"), but also through tone, intensity, or nonverbal displays like crying, shouting, or silence (Gilbert, 1997, p. 84).

A clear example of this mode appears in the case of *Mr. Dorno's grief:*

Mr. Dorno is grief-stricken at the funeral of his wife. During the reception, a relative speaks at length about her, offering only kind words. Suddenly, Mr. Dorno erupts, telling the relative that she never truly knew his wife and should not speak of her. Though the outburst is emotionally intense, no one rebukes him. Instead, the relative quietly withdraws, and others reassure Mr. Dorno (Gilbert, 1997, p. 92).

From a logical perspective, the argument is weak. Others may have known his wife and have the right to speak about her. However, Mr. Dorno's grief becomes the emotional backing for his claim. His argument that someone who did not truly know his wife should not speak of her, is supported not by evidence, but by the justified intensity of his emotion. In this context, the relative finds that emotional expression sufficient and refrains from continuing.

Gilbert notes that one might question whether grief is a valid warrant for an argument. It may not be logically strong, but it is still a warrant that is used and accepted. In a different context, the same emotion might not carry the same persuasive weight. This example shows that in the

emotive mode, the force of an argument depends on the emotional context and the shared understanding between those involved, rather than on formal reasoning alone.

2.2.2 The Visceral Mode

The visceral mode of argumentation relies on physical, embodied actions rather than verbal or logical expression. These arguments are enacted through gestures, movement, posture, proximity, and other nonverbal behaviours. In this mode, persuasion happens through presence and action rather than through words or formal reasoning.

According to Gilbert, visceral arguments cannot be fully captured when translated into propositional or linguistic form. Their meaning often depends on timing, relational dynamics, and context, which cannot be preserved through verbal description alone (Gilbert, 1997, pp. 85).

A useful example of the visceral mode is found in the scenario Gilbert titles *Shrimp for Dinner*.

Michael is cooking shrimp when Deanne asks if he thinks adding curry would be a good idea. Michael says no. Without further words, Deanne begins rummaging through the kitchen cupboards, climbs a stepstool, retrieves a can of curry, and holds it out to Michael while standing close to him. Michael then changes his mind and agrees to add the curry (Gilbert, 1997, pp. 85).

In this case, Deanne's argument is not verbal. It is her actions, the searching, the physical closeness, and the offering of the curry that constitute the argument. She could have spoken more or given reasons, but instead she chooses to show rather than tell. The persuasive force lies in her behavior, not in a set of premises or conclusions.

Gilbert explains that although this interaction can be described in words, it is not the description that convinced Michael. It was the physical act itself. The visceral mode operates in a realm that formal logic cannot capture. Nonverbal acts like gestures or spatial cues can be ambiguous, and their meaning often depends on subtle social cues. For this reason, attempting to translate them into logical form risks losing their full meaning and impact.

Visceral arguments often appear alongside other modes. In the *Shrimp for Dinner* example, Deanne's actions may also express emotional significance, such as her desire to contribute to the meal or her investment in the flavour. This overlap reflects what Gilbert calls coalescent

argumentation, where multiple modes, logical, emotional, visceral, and intuitive are combined in real-life argumentation.

The visceral mode, then, reveals that nonverbal behaviour can carry argumentative weight. These arguments function outside traditional logical analysis but are nonetheless common and effective in everyday interactions.

2.2.3 The Kisceral Mode

The kisceral mode of argumentation involves appeals to intuition, insight, spirituality, or non-sensory experience. These arguments are not supported by empirical data or formal reasoning but rather arise from a deep internal sense of conviction. Gilbert describes kisceral arguments as those that draw from sources such as imagination, the spiritual, the mystical, or the intuitive. They may appear unstructured or logically weak, but they still function as genuine arguments because they present a claim and seek to persuade.

Gilbert does not try to determine whether kisceral arguments are valid or correct in a traditional logical sense. Instead, he argues that we must understand them as part of everyday human communication. He writes that "regardless of one's own thoughts with respect to legitimacy, correctness, or even existence, of kisceral arguments, they will be encountered because they are used" (Gilbert, 1997, pp. 87). What matters is not whether they meet formal criteria, but that they are actually employed in situations where disagreement occurs.

One example Gilbert offers is the scenario titled *The Offer*.

Greg and Lisa are discussing a business proposal. Greg believes they should increase the offer because the other party seemed dissatisfied. Lisa disagrees and says, "Don't change a thing, be patient, I just know he'll accept it" (Gilbert, 1997, p. 87). Her response is not based on a presented reason or evidence. Instead, she relies on an intuitive sense of what will happen. According to Gilbert, this response is a kisceral argument. It expresses a conclusion supported by insight or instinct, even if it cannot be logically explained.

Gilbert emphasizes that even if an argument like this is logically poor, it is still an argument. It presents a position and attempts to influence another person's decision. He writes that "a kisceral argument relying on one's intuition might be a logically bad argument, but it is still an argument which has a claim and tries to convince others" (Gilbert, 1997, pp. 100).

Christopher Tindale further develops the importance of the kisceral mode. He argues that kisceral arguments represent a fundamental aspect of human understanding that cannot be captured by the critical logical view. This view assumes that all arguments should be

explainable in logical terms, which creates a problem when evaluating intuitive or experiential claims. Tindale refers to insights from William James and Georges Bataille, suggesting that kisceral arguments often express inner experience or meditated emotion (Tindale, 2022, pp. 607). These arguments are grounded not in evidence but in a relation to inner emotional or subconscious states.

Tindale notes that kisceral arguments may offer sensual rather than conceptual knowledge. They are not always aimed at objective truth but may instead serve interpersonal or expressive purposes. For this reason, he acknowledges that it is debatable whether all kisceral expressions should be classified as arguments. However, he maintains that they play a meaningful role in how people understand the world and engage with one another (Tindale, 2022, pp. 616).

So, the kisceral mode reveals that people often rely on intuition, insight, and belief in their reasoning. These arguments may not conform to formal logic, but they still operate persuasively and meaningfully in practice. Rather than dismissing them, Gilbert urges us to take them seriously and to develop tools for understanding how they work.

2.3 The Relation Between Modes

Another thing that needs to be discussed, and related with other considerations, is the relation between modes. According to Gilbert, the supposed relation suggested by the CL view is reductive. It is reductive because it envisions the translation of emotive, visceral, and kisceral modes to the logical one. The reduction is in the form of translation. So, every argument we encounter, according to the CL model, should be reconstructed into propositions and then analysed. However, Gilbert thinks that arguments in other modes lose their proper meaning if they are translated into formal propositions (Gilbert, 1997, pp. 85). Let's take the *Shrimp for Dinner* example from above. In that situation, Deanne does not offer verbal reasons or propositional content to persuade Michael. Instead, she retrieves the curry, stands close to him, and presents it physically. This is a visceral act that carries persuasive force through her presence and persistence. While it is possible to describe this exchange in words—perhaps as "Deanne believes curry would improve the dish, and her persistence suggests its importance to her"—such a translation strips away the immediacy, subtlety, and embodied nature of her argument. The physical act is not just a vehicle for an argument but the argument itself. According to Gilbert, describing this behaviour propositionally does not capture what convinced Michael to change his mind. What persuaded him was not a verbal claim but the accumulated weight of Deanne's behaviour. This is why Gilbert argues that modes should be

respected in the form in which they are expressed rather than filtered through the expectations of logical form.

There is one more thing that Gilbert discusses which is worth mentioning here: the problem of sufficiency and acceptability of different modes of arguments. He argues that sufficiency and acceptability are variable depending on various circumstances. (Gilbert. 1997 pp. 97). When a scientist is trying to provide reasons to believe a claim about climate change, she would be after experimental results; another scientist may want to repeat the experiment before believing the conclusion. On the other hand, an accountant may just believe that climate change exists because she heard a discussion of it on the radio. So, from person to person, acceptability criteria vary. When people express their claim through different modes, they expect others to take it as a sufficient claim. In the above example, when Lisa says “do not change the offer”, Greg may find it sufficient because he knows Lisa. But some other person may not find it acceptable because she does not know Lisa. In other words, ‘each of the modes can define, for itself, relevance, sufficiency, and acceptability.’ (Gilbert, 1997 pp. 97). These claims about sufficiency and acceptability are discussed by other philosophers in the literature (see below).

Gilbert further explains how different modes of arguments lay down their own criteria of acceptance. He gives a story of two business partners who are debating the car they will buy for the business. In the debate, Fran wants to buy a cheaper car for the business, but David wants to buy a more expensive, beautiful car. Fran argues that there is no good reason to buy the car that David wants because Fran believes it is more expensive, and the cheaper car will do the same job. David replies to Fran and says, "You don't get it. We can say 1,000 times that we're real and authentic, and we will sound like everyone else. But show it once, and they will believe you forever." Fran answers by arguing that buying the car David wants will increase the cost significantly, and she says, "I am terrified of how much I have got invested in this. If we put more in..." (Gilbert, 1997, pp. 124). In this example, Gilbert argues that Fran supports her claim with an emotional warrant. Fran is terrified of the amount of investment they are putting in, and that is why she does not want to put in more. It is up to David to accept this emotional backing as acceptable. This kind of emotional backing would not be valid from a CL perspective, but Fran's business partner may find it acceptable and may decide not to buy the expensive car.

One last example to illustrate the acceptability issue could be a discussion between two theologians. Imagine that two theologians are discussing how the universe began. Any

argument that relies on the existence of God will be acceptable for both theologians since they believe in the existence of God. From the CL perspective again, this would not be acceptable since there is no evidence or data that God exists. However, this does not concern theologians. They continue their discussion and make their claims that may be acceptable to other theologians. So, there are two factors in accepting an argument in a different mode for Gilbert. One is the person who is receiving the argument (an emotional backing like love would not work for a stranger), and the justification of the warrant given in a different mode. A belief in God could work as a warrant for theologians but not for everyone.

In sum, Gilbert's concept of "mode" is an attempt to classify different types of arguments based on the ways they function, rather than confining them to strict logical standards. He argues that not all arguments fit neatly within formal logic; instead, they may operate in other meaningful ways, such as through emotional appeal, personal experience, or visual representation. According to Gilbert, when we encounter an argument that does not conform to traditional logical structures, we often struggle to categorize it. His idea of multiple modes allows us to recognize that these kinds of reasoning are still genuine arguments, just operating within a different framework or mode: they are different kinds of arguments that take their evidence from different sources. To illustrate this, Gilbert introduces what he calls the Critical Logical View as an example of the traditional approach, which he then critiques.

2.4 Critical-Logical View

Michael Gilbert labels the traditional approach to critical thinking the Critical-Logical Model (C-L) of reasoning. The C-L model is characterized by its emphasis on linear thinking, which involves separating extraneous elements like emotions, power dynamics, and social consequences from the core argument for examination. It meticulously distinguishes between relevant and irrelevant information during argument evaluation.

According to Gilbert this model minimizes the significance of the personal situations or backgrounds of the arguers. Arguments are typically seen as conclusions supported by one or more premises, and they are analysed based on their formal structure. What matters is their validity and soundness. Gilbert finds this view constraining and limiting for critical thinking. He argues that the C-L view might excessively emphasize formalistic analysis, potentially missing central aspects of arguments such as emotions, context, and personalities. It can also be overly restrictive in defining proper reasoning by excluding other valuable forms of interpretation and consideration, such as emotion and intuition. This restrictive definition of reasoning may leave those who rely on these alternative modes without power.

One of Gilbert's targets here is *Logical Self-Defense* by Ralph H. Johnson and J. Anthony Blair (1983). *Logical Self-Defense* approaches critical thinking as the careful analysis and reconstruction of arguments, treating them as structured sets of claims supported by reasons. Central to this approach is transforming everyday verbal assertions into clear frameworks that expose the relationships between premises, conclusions, and implicit assumptions.

A fundamental tenet advocated here is the exercise of formal analysis. Emphasizing the principle of interpretation, the approach urges a withholding of judgment until an argument is thoroughly and objectively presented, devoid of subjective biases. (Johnson and Blair, 1983 pp.42). It signals the virtues of impartiality, precision, and comprehensiveness as pivotal in assessing an argument's strength and validity.

This inquiry is not merely about pinpointing errors but aims to distil truth from the complexities of argumentation. A "logically good" argument, in this context, necessitates a set of premises robust and structured enough to sway a reasonable mind toward the proposed conclusion. (Johnson and Blair, 1983 pp. 50). This perspective eschews the demand for irrefutable proofs, recognizing the potency of a well-constructed argument.

The book advises against the pursuit of flawless arguments, cautioning against unrealistic expectations of indisputable proofs. It underscores the contextual nature inherent in argument evaluation, acknowledging that varying contexts necessitate distinct criteria for appraisal—whether debating casually or deliberating within specialized fields. Central to this discourse are the fallacies—instances of argumentative lapses violating the requisites of sound reasoning. The RSA Triangle—incorporating Relevance, Sufficiency, and Acceptability—serves as a guideline for argument assessment. The premises of an argument must be *relevant* to the conclusion, the premises must provide *sufficient* reasons to support the conclusion, and the premises must be *acceptable* and thus, testable. (Johnson and Blair, pp. 55-56). If an argument does not fulfil RSA standards, then it is a bad argument or not an argument at all. Consider an emotional argument within Gilbert's framework. One challenge it raises is the indeterminacy of emotions: what would it even mean for an emotion to be true? Emotions, unlike factual claims, are not typically subject to truth conditions in the same way. Even if an argument includes an emotional expression—such as anger, fear, or empathy—there is no straightforward method for testing whether that emotion is genuine or appropriate purely from the argument itself. While we might find contextual justifications or interpretive cues that lend credibility to the expressed emotion, this does not equate to evidential proof. This raises a

deeper epistemological question that differentiates Johnson and Blair's approach from Gilbert's: can emotions function as rational components of argumentation if they cannot be verified or falsified in the traditional sense? We will see below that the answer for Gilbert is yes, but for Johnson and Blair it is no.

In analysing the C-L model attributed to Gilbert by Johnson and Blair, I will argue that while some aspects of Gilbert's criticism are valid, others are not. Gilbert's critique rightly points out that the C-L view places excessive emphasis on formal analyses of an argument. However, this does not imply that the C-L view completely disregards the context. Johnson and Blair advocate for withholding judgment and considering the context before interpreting an argument. (Johnson and Blair, 1983 pp.42). Furthermore, they argue that a good argument should also be rhetorically appealing.

One warning Gilbert makes concerns how we assess the legitimacy of different modes of argument. He explicitly states that the value of an argument should not be dismissed solely based on one's opinion about the legitimacy or correctness of the mode in which it is expressed. In other words, even if someone views a particular mode, such as emotional or visceral argumentation, as less valid than logical argumentation, that should not automatically disqualify the argument itself from serious consideration. In summary, Gilbert's view is that there is more than one mode of arguing. The different modes should not be reduced to each other. The different modes may occur together in the same conversation. Gilbert does not deny the logical mode, in fact, he knows that there are implicit deductive and inductive thought processes going on even when we encounter other modes of argument. For example, when we make a visceral argument (such as kissing our partner), we are also engaged in the emotional mode by conveying feelings through the act, and the logical mode by implying a propositional meaning (e.g., affection, apology, or reassurance). In this way, the kiss functions both as a visceral and emotional argument, while also carrying implicit logical content.

These implicit thought processes may or may not be logical. Gilbert thinks we should not translate and reduce the other modes into the logical one as CL model suggests, but rather we should try to understand them as they are. This suggestion, I think, does not deny the fact that when we encounter different modes, we are also engaging in the logical mode of argumentation to understand them.

2.5 Attitudes: Eristic and Heuristic

There is one another issue that Gilbert emphasises that I think is related to the inquiry approach to critical thinking that we saw in Bailin and Battersby. It is the issue of attitude. He talks about two different attitudes for argumentation and critical thinking; heuristic and eristic. These two attitudes are opposed to each other. Taking the heuristic attitude is aiming to understand another's position prior to criticising it. It emphasizes comprehensiveness rather than criticality. On the other side, the eristic attitude is focused on analysing, criticising, and trying to find errors in other's views. (1997, p.43). He then argues that the CL approach over-emphasises the eristic attitude. This makes the CL approach only focused on criticising and analysing others and thus, missing the point of understanding and agreement. It is important to note that the eristic and heuristic attitudes can work together. We analyse in order to understand, but we may also need to understand something first in order to analyse it effectively. Gilbert's distinction between these two attitudes draws attention to a common issue: an overemphasis on criticism—focusing on identifying flaws—can come at the cost of fully grasping an argument's intent or structure. From this perspective, he critiques the critical logical (CL) approach for leaning too heavily on the eristic attitude. In other words, the heuristic attitude reflects a constructive, understanding-oriented approach to critical thinking, while the eristic attitude is more adversarial and focused on fault-finding—and Gilbert argues that the CL model is overly dominated by the latter.

I suggest that there is a relation between the heuristic approach and multi-modal arguments. It must be remembered that Gilbert's aim is to improve understanding and agreement in critical thinking. To do that, he distinguishes between different modes of arguments. These different forms of arguments can be appreciated with the heuristic attitude because the aim is to first understand rather than criticize. Overall, both the contemporary developments of the first-inquiry approach and the second-heuristic attitude toward multi-modal arguments share similar underlying aims.

Gilbert's perspective is crucial to my research primarily for two reasons. Firstly, he demonstrates the inadequacy of the Critical-Logical view of argumentation and critical thinking. He argues that they overly emphasize verbal and logical modes of arguments while neglecting other modes. He also criticizes their approach, stating that they prioritize analysis and error-finding over understanding, which he refers to as the eristic attitude.

The second point of significance lies in his detailed discussion of multi-modal arguments. Although there are some issues and criticisms of his viewpoint (as discussed below), he opens

the door to broader discussions about various modes of argumentation. Prior to his work, when non-propositional arguments were discussed at all, the focus was primarily on visual arguments. We will see below that there is a debate about whether visual arguments should be translated into propositional form or whether they can be recognized as logical arguments in their own right. Gilbert broadens the discourse to include emotive, visceral, and kisceral modes of argumentation. Particularly, his concept of emotional arguments will prove valuable in my fourth chapter section 4.3 when I aim to develop my own approach. By introducing emotional arguments into critical thinking, he creates a space for imagination and emotions to play a role in critical thinking, which addresses the two main gaps I have identified.

2.6 Evaluating Michael Gilbert

In this section, I will present what is the classical view of a logically good argument and then show how Gilbert's framework distances itself from that logical backbone of an argument. Then, I will offer a way to make Gilbert's model suitable for the application of logical standards by protecting its emphasis on multi-modality. My aim here is not to refute Gilbert's perspective but rather to seek a position that can encompass logical structure within his framework. My intention in proposing a middle position to reconcile the logical structure with multi-modality is to make Gilbert's framework more applicable to my research. I anticipate that his framework will prove beneficial in my subsequent chapters, where I aim to develop a new approach for critical thinking.

According to Ralph H. Johnson and J. Anthony Blair, a sound argument is one whose premises are sufficiently strong to persuade a reasonable person of its conclusion (Johnson & Blair, 1983, p. 50). Their view does not require absolute proof but emphasizes the persuasive power of well-supported reasoning. The first problem arises here when we remember that Gilbert takes an emotion as a justified warrant for the argument. Concerning Mr. Dorno's Grief, Gilbert contends that Mr. Dorno's grief serves as the argument's warrant. I find this assessment flawed. While grief and the argument's context undeniably influence others' convictions, they are no

t the warrants presented. Mr. Dorno argues that the relative cannot speak about his wife because she doesn't know her, not because he is grieving, and she cannot speak about his wife. In other words, grieving cannot be the sole reason for Mr Dorno's argument. It must be accepted that emotion plays a role in the argument. It plays a supporting role for the claim made in terms of

persuasiveness.[5] However, emotion, by itself, cannot be a justified claim for an argument if it is to be evaluated logically.

This brings us to the second problem regarding logicality and Gilbert's framework. Gilbert is aware of the above problem and that is why he suggests that different modes of arguments should have different criteria of evaluation. Even though he does not proceed to develop these criteria, what this suggestion implies is problematic. If we are to judge emotional arguments through emotions, or visceral arguments through its physical demonstrations, we would have to let go of the logical structures of arguments. Before I take on another example from Gilbert to show this error, I will turn again to Johnson and Blair's logical principles of argument assessment. As discussed in section 2.4 they develop the RSA Triangle as a guideline for argument assessment. RSA stands for relevance that the premises of an argument must be *relevant* to conclusion, *sufficiency* that the premises must support sufficient reasons to support the conclusion, and *acceptability* that the premises must be acceptable and thus, testable. (Johnson and Blair, pp. 55-56).

Now, when we recall Gilbert's example of Fran and David, we can see that Fran's fear of investing more money into the business is presented as a warrant for the argument. That is how Gilbert suggests we interpret the case. This prompts us to evaluate the argument using the RSA test: relevance, sufficiency, and acceptability.

First, we consider relevance. Fran's fear is clearly relevant to the conclusion that they should not invest more money. Her emotional response pertains directly to the situation and influences the decision being made. Since the premise has a bearing on the conclusion, it meets the relevance standard. Next, we evaluate sufficiency. Although fear may draw attention to a possible issue, it does not by itself provide enough support for the conclusion. Fear is a subjective emotion that lacks objective grounding unless supported by additional evidence. Without concrete reasons or data to justify the fear, it cannot serve as a sufficient basis for concluding that they should avoid further investment. Therefore, the argument fails the test of sufficiency.

Finally, we consider acceptability. One might accept that Fran's fear is sincere, and in that sense, the premise could be considered acceptable. However, even if the emotion is genuine, it does not follow that the fear provides a justifiable reason for the conclusion. Acceptability here does

[5] Johnson and Blair call these supportive aspects extra-logical merits of a good argument. See (Johnson and Blair, pp. 50) The problem with Gilbert is his claim of putting forward emotion as a logical merit itself.

not compensate for the failure in sufficiency. Since the RSA framework requires that a premise meet all three standards, the failure to meet sufficiency alone is enough to undermine the argument. Even though the premise is relevant and possibly acceptable, it does not provide adequate support for the conclusion.

I will now discuss one more example from Gilbert. In his 1994 paper called *Multi-Modal Argumentation*, he gives the following example (Gilbert, 1994 pp. 169):

> Jill: But why should I marry you, Jack?
> Jack: Because I love you as life itself.

Gilbert posits that what Jack presents constitutes an argument wherein he asserts a premise through an emotional mode. Specifically, Jack's love for Jill is purported to be a compelling reason for Jill to marry him. Gilbert contends that attempting to reframe this argument into premises akin to traditional logic would be akin to "forcing a square peg into a round hole" (Gilbert, 1994, pp.169). Essentially, he suggests that comprehending this argument does not necessitate reducing it to strictly logical terms. Regarding Jack's reasons, Gilbert says that they do not adhere to logical reasoning; rather, their origins lie in introspection into Jack's emotional state. However, when measured against the RSA triangle, this argument falls short. Primarily, it lacks logical defence, and secondly, it lacks acceptability due to Jill's inability to assess the truth condition without additional information. Jill must seek external information beyond the argument's scope to make an informed judgment.

To elucidate my assessment of Gilbert's framework, I focus here on the issue of applying distinct evaluative standards to different modes of argument. Towards the conclusion of his 1994 article, Gilbert states, "Special pleading, for example, is generally fallacious in a logical mode, but less often in kisceral where the requirement that one actually have an experience in order to understand it makes perfect sense" (Gilbert, 1994, pp. 175). He offers this observation in reference to a case where a student appeals to a professor for a passing grade in a course. From a logical standpoint, such an appeal might be categorized as a fallacy of special pleading. However, Gilbert argues that when the appeal is made within the kisceral mode, through the expression of deep personal significance and emotional resonance, it should not be evaluated by the same logical standards and might instead be considered a legitimate form of argumentation.

While Gilbert presents this as a plausible re-framing, I suggest that it raises a serious concern regarding argumentative standards. If each mode is judged by criteria internal to that mode alone, then it becomes difficult to critique or assess arguments across modes. This opens the possibility that any appeal can be justified as long as it aligns with the conventions of the chosen mode. In practice, this could lead to a situation where the strength or weakness of an argument depends not on its content or structure, but on the mode in which it is presented. The result is a potential collapse of shared evaluative standards, which could erode the critical function of argumentation itself.

This concern is amplified by the fact that Gilbert claims to occupy a middle ground between traditional logical analysis and his broader multi-modal approach. He insists that he does not reject logical standards. However, by placing logical reasoning on equal footing with emotional, physical, or intuitive appeals, without offering a clear mechanism for comparison or integration, his framework appears to sidestep the possibility of principled adjudication between conflicting modes.

In this way, Gilbert's model risks encouraging an "anything goes" view of argumentation. If the mere act of shifting modes can shield a claim from rational scrutiny, then the very notion of argumentative rigor is compromised. While the inclusion of non-logical elements in argumentation is important, especially for capturing the full range of human communication, this inclusion must be coupled with a systematic account of how different modes can be held to mutually recognizable standards. Without this, Gilbert's proposal threatens to undermine the coherence of argument evaluation.[6]

Gilbert disagrees with the notion that vagueness and ambiguity always indicate a bad argument. He argues that different modes of argument might express claims and ideas differently. This discrepancy forms the core disagreement between the two views. Gilbert advocates for accepting certain ambiguities as they are within an argument, while Johnson and Blair advocate for verbally reconstructing these ambiguities to facilitate logical analysis. This is a key difference between the view of Johnson and Blair and Gilbert's view.

In this section, I have shown how Gilbert's multi-modal framework diverges from the traditional logical approach to arguments by introducing evaluation criteria that do not neatly align with the principles of logical argumentation. In the subsequent section, I'll propose an

[6] Gilbert explicitly states that he does not wish to exclude the logical mode, however, by suggesting the development of different criteria for different modes of arguments is excluding logical criteria for those modes of arguments. See (Gilbert, 1994)

alternative perspective on understanding multi-modal arguments to bridge this gap and bring them into alignment with logical reasoning.

2.6.1 Reconciling Logical Structure and Multi-Modality

In this section, I will initially introduce Bertrand Russell's concepts of knowledge by acquaintance and knowledge by description. Following this, I will illustrate how the concept of knowledge by acquaintance can facilitate the reconciliation between Gilbert's multi-modality and the principles of logical structure.

My goal here is not to reject Gilbert's perspective but to explore a stance that integrates logical structure into his framework. By suggesting a balanced position that harmonizes logical structure with multi-modality, I aim to adapt Gilbert's framework to better suit the needs of my research. I expect that this framework will be valuable in the upcoming chapters, where I plan to propose a new approach to critical thinking.

In Bertrand Russell's exploration of "Knowledge by Acquaintance" and "Knowledge by Description," he illuminates two distinct modes of understanding objects. "Knowledge by Acquaintance" is characterized by a direct cognitive relationship, wherein one is immediately aware of the object itself, not involving judgment but rather direct presentation. This form of awareness extends to sense-data—such as colors or noises—and even self-consciousness. Conversely, "Knowledge by Description" pertains to comprehending objects through defining phrases or descriptions, distinguishing between ambiguous ("a so-and-so") and definite ("the so-and-so") descriptions. Universals and particulars often fall under this category, known through descriptions rather than direct acquaintance. While "Knowledge by Acquaintance" brings the object itself before the mind, "Knowledge by Description" allows for understanding properties belonging to objects, even without direct acquaintance with those entities.

To give an example of knowledge by acquaintance, imagine looking at a red apple. In this scenario, your direct sensory experience of seeing the redness of the apple, perceiving its shape, and feeling its texture when you touch it represents knowledge by acquaintance. It is the immediate, unmediated awareness of the apple itself through your senses.

An example of knowledge by description would be your knowledge of "the tallest building in the city." Even if you haven't seen this building or directly experienced it, you might have knowledge about it through descriptions or information provided by others. You understand

this concept by the description provided—knowing that it refers to a specific building that holds the attribute of being the tallest among all the buildings in the city. This understanding does not arise from direct sensory experience but rather from the information conveyed through description or defining phrases.

2.6.2 Integrating Knowledge by Acquaintance with Gilbert's Framework

To reconcile Gilbert's multi-modal argumentation with the logical structure of argumentation, we can employ Bertrand Russell's concept of "Knowledge by Acquaintance." Gilbert's framework emphasizes various modes of argumentation, including emotional, visceral, and kisceral dimensions.

Russell's notion of "Knowledge by Acquaintance" pertains to immediate, unmediated awareness of objects or experiences through direct sensory perception. In the context of Gilbert's framework, we can interpret the various modes of argumentation as distinct forms of "acquaintance" with aspects of human expression and communication. Just as one perceives sensory qualities directly without mediation, the different modes of argumentation in Gilbert's framework represent distinct forms of immediate awareness and understanding. Reconstructing Gilbert's modes of argumentation as the things that we acquainted with saves us from having to posit different standards of evaluation but at the same time, it appreciates and understands extra-logical, or non-verbal elements of arguments. For instance, the emotional dimension of an argument, as per Gilbert, can be likened to "acquaintance" with feelings and emotional reactions. Similarly, the visceral dimension involves direct perception and expression through physical gestures, body language, and environmental cues. The kisceral mode, which involves intuition and non-sensory insight, can be seen as a form of immediate awareness or acquaintance with abstract concepts or feelings that do not rely on empirical evidence.

To reconcile this with the logical structure of arguments, we can view these diverse modes as different avenues of understanding and expression that contribute to the overall fabric of an argument. Rather than conflicting with logicality, these modes can be seen as complementary facets that enrich the understanding and presentation of arguments. Rather than an argument in themselves, we can accept them as extra-logical elements of arguments.

For instance, consider a scenario where two individuals, Sarah and Mark, are debating the merits of a new policy proposal within a company:

Mark emphasizes the physical and environmental aspects, vividly describing past experiences under similar policies, utilizing gestures and tone to underscore the real-life impact. Mark's

mode of argumentation resonates with "Knowledge by Acquaintance," evoking immediate sensory and experiential awareness within the debate.

There's no compelling reason to suggest that Mark presents an entirely different argument in a distinct mode of argumentation. Nor do we need to posit the necessity of different criteria to comprehend Mark's approach.[7] We can still assess Mark's argument through logical principles. Knowledge by acquaintance offers a means to comprehend and value these additional, non-logical elements within our evaluation process.

It could be argued that Mark enhances the persuasiveness of his argument by integrating these extra-logical elements. I concur with Gilbert that these elements should not be dismissed as mere rhetoric; they warrant inclusion in the evaluation process. However, I differ from Gilbert in the sense that I do not advocate for the need for distinct modes and separate evaluation criteria for them. Hence, the middle ground, where we can appreciate these extra-logical elements while remaining faithful to logical structures, is found through the application of Russell's notion of knowledge by acquaintance.

2.7 Objections to The Middle Position

In the previous section, I offered a middle position to reconcile Gilbert's view with the logical structure of argumentation. In this section, I will give two possible objections, and I will respond to them.

2.7.1 The Middle Position Reduces Multi-Modality

One could argue that, similar to the CL view, my proposed middle position risks oversimplifying multi-modal arguments. By applying the concept of knowledge by acquaintance, it might seem that all modes are being forced into a single category of 'extra-logical elements,' attempting to cover them solely through that lens. However, the endeavour to align Gilbert's multi-modal argumentative framework with Russell's concepts of knowledge by acquaintance and knowledge by description is not about imposing rigid categorizations. Instead, it is an exploration to gain insights into the diverse dimensions Gilbert introduces. I acknowledge the richness of Gilbert's proposed modes, highlighting their complexity and uniqueness within argumentation theory. The offered position doesn't have to reduce all multi-

[7] That is what Gilbert suggests us to do in order to understand arguments from different modes. See above.

modal categories to extra-logical elements; rather, we can uniquely understand each mode according to its style of expression by being acquainted with them. It is important to emphasize that this approach does not require leaving logic aside.

I acknowledge that Gilbert's framework encompasses a spectrum of argumentative expressions, including emotions, physical interactions, and intuitive insights, which might not neatly align with Russell's categorical distinctions. Rather than forcefully pigeonholing these modes into pre-existing categories, the article employs Russell's concepts as a guiding to use Russell's insights as a tool for better understanding, acknowledging that Gilbert's framework extends beyond conventional boundaries.

2.7.2 Neglecting the Impact of Contextual Factors in Evaluation.

One might argue that the proposed reconciliation framework might not adequately consider the contextual impact on argument evaluation. It is possible that certain contexts demand different modes of evaluation, and a rigid adherence to logical principles might overlook the relevance of these extra-logical elements in specific scenarios.

The reconciliation between multi-modal arguments and logical evaluation doesn't negate the importance of context; rather, it seeks to integrate these diverse elements within a structured framework. While logical principles offer a basis for evaluation, they should be flexible enough to accommodate contextual influences. Acknowledging contextual factors doesn’t necessarily conflict with logical evaluation. The proposed reconciliation framework should allow for a contextual understanding of how different modes operate within specific scenarios. This means recognizing that certain situations might demand different modes of evaluation without abandoning logical scrutiny altogether.

The application of logical principles does not necessarily discount contextual relevance. The RSA Triangle (Relevance, Sufficiency, Acceptability), for instance, can encompass contextual considerations. Relevance specifically plays an important role in argument evaluation. An extra-logical element might be relevant when evaluating an argument. Remember the example about Fran and David. Instead of disregarding Fran’s fear altogether, from the middle position that is offered, one may say that this fear is relevant to the argument at hand, so let’s question and investigate the emotion to find out the reasons behind it. The offered position does not aim to be as strict as the CL view but should be flexible enough to appreciate different modes of arguments within the logical framework.

2.7.3 How This Solution Enhances the Applicability of Gilbert's Framework

The reconciled version of Gilbert's framework, supported by Bertrand Russell's concept of "Knowledge by Acquaintance," provides a foundation that is particularly useful for my research. My work aims to integrate emotions, imagination, and other extra-logical elements into critical thinking while maintaining the logical backbone central to argumentative evaluation. This adapted framework allows me to achieve that balance.

By interpreting Gilbert's multi-modal dimensions—emotional, visceral, and kisceral—as forms of "acquaintance," I can incorporate these aspects into the critical thinking process without the need to abandon or compromise logical principles. This approach acknowledges that elements like emotions and imagination play a significant role in how arguments are expressed and understood, yet it frames these elements as complementary to, rather than separate from, the logical structure of arguments. This is particularly valuable for my research because it provides a pathway to broaden the scope of critical thinking. The reconciled framework allows me to explore how arguments expressed through feelings, intuition, and sensory awareness can contribute meaningfully to critical discussions, without requiring entirely separate evaluative standards. For instance, the emotional impact of an argument can now be understood as an enhancement of its persuasive power, rather than as a deviation from logic.

This version of Gilbert's framework equips me with the tools to incorporate a richer array of human experiences into critical thinking. It lets me explore arguments that are deeply grounded in non-propositional forms, such as narratives, gestures, or metaphors, while ensuring that the logical backbone of argumentation remains intact. In doing so, it aligns with my goal of developing an inclusive approach to critical thinking that is both rigorous and responsive to the diverse ways humans communicate and reason. This adaptation makes Gilbert's framework not just compatible with my research, but instrumental in advancing it. It provides the flexibility to engage with multi-modal elements of argumentation while preserving the logical integrity that is central to my thesis. This reconciled framework will serve as a cornerstone for the ideas I develop in the subsequent chapters.

2.8 Multi-modality and Propositionality

The discussion of multi-modal arguments extends beyond Gilbert's specific framework. While Gilbert outlines modes such as the emotional, visceral, and kisceral, he does not explicitly include visual arguments among them. However, his broader claim that arguments can take forms beyond the strictly logical opens the door to considering visual arguments as another

significant mode. Visual arguments use images, diagrams, or other non-verbal elements to present reasoning or persuade an audience. Scholars have debated whether such arguments should be translated into propositional terms to be treated as logical, or whether they should be recognized as legitimate arguments in their own right, even if they resist full propositionalization. Although visual arguments are not part of Gilbert's original list of modes, they are closely aligned with his multi-modal approach, as both challenge the traditional view that arguments must be purely verbal and logical. In what follows, I will briefly introduce key discussions on visual arguments to illustrate how the scope of multi-modal argumentation has been further expanded by other theorists.

In this section I discuss alternative approaches to multimodal argumentation that, while distinct from Gilbert's, are also in dialogue with his work, as presented in a special issue of the journal *Argumentation* on this topic (Kjeldsen, 2015). Supplements to Gilbert in the literature stem from two distinct points. The first point concerns the status of multi-modal arguments. Groarke and Tindale (2015, 2022) argue that these arguments are not always fully developed arguments in themselves, or they do not always consist of propositions. The problem arises when considering that if they are not always propositional and are not complete arguments on their own, they cannot be logically judged. This leads us to the second point, which is the evaluation of non-logical arguments. In his book, Gilbert outlines a system of evaluation and suggests that different modes of arguments should be assessed using distinct standards of evaluation (1997, pp. 118-132). This approach raises issues from a logical perspective. If these arguments are not to be judged by logical standards, then they cannot be considered logical in the sense of containing propositions with truth-values. Attempting to translate other forms of argument, such as emotional expressions or physical gestures, into purely verbal or propositional terms is often seen as problematic because such translations fail to preserve all the meaning and significance present in the original forms.

This aligns with Gilbert's ideas on translation (Groarke, Kjeldsen, Roque, 2015, 2015, 2017). In relation to the translation issue, Groarke goes further into the matter of reconstructing multi-modal arguments (2015). He argues that the purpose of reconstructing arguments into verbal forms is to determine their truth value, thereby making them logically evaluable. He dismisses the criticism of the vagueness of visual (and other forms of) arguments, asserting that verbal arguments can also be vague and still require reconstruction for logical evaluation. If vagueness is accepted, multi-modal arguments may not be regarded as arguments but rather as rhetorical expressions to be avoided.

Leo Groarke presents a similar perspective on understanding multi-modality in dialogue with Gilbert. He thinks that most of the arguments encountered are joint arguments (2015): that is, that arguments are often expressed in more than one mode.[8] This comprehensive view of arguments attempts to identify commonalities among all arguments, whether they are multi-modal or mono-modal. For Groarke, whether an argument is expressed visually or verbally, interpretation is essential. The step of interpretation is indispensable for understanding an argument. When we interpret an argument, we strive to comprehend its propositions, which make claims about whether A is true or false. In verbal arguments, we typically have a paragraph or a text, and we attempt to understand it through interpretation, identifying the propositions that carry truth values. We apply the same process to visual content. Whether it is a visual, poster, photograph, or even a movie, we interpret it to grasp its propositions and the claims it presents. In this sense, Groarke argues that all arguments, whether visual or verbal, are propositional (2015). This is where Groarke diverges from Gilbert, as he does not advocate for different standards of evaluation for different modes of arguments. Regardless of the mode, we understand them through interpretation. However, he concurs with Gilbert that we should not reduce them to purely logical forms but rather strive to comprehend them in the mode in which they are expressed, leading to a more comprehensive understanding of the argument.

In the same volume of *Argumentation*, Georges Roque poses the question, 'Should Visual Arguments be Propositional in Order to be Arguments?' (2015). He argues that it is not the nature of visual arguments (and other forms) that prevents them from being propositional, but rather the specific visual encountered. For instance, a political poster, even if it consists solely of visuals without any words, can still convey an argument in favour of a particular political party. Similarly, a poster claiming that carbon emissions cause climate change presents a proposition because it makes a claim that can be evaluated for truth value. However, some other visuals may lack propositions, not because they are visual, but because they do not assert something specific. What complicates the evaluation of such visuals (often found in artworks) is that their interpretation can vary widely, making it challenging to attribute a specific proposition to them. Yet, this issue is not unique to visuals; some texts also exhibit this broad interpretive scope and lack specific claims. These texts are not categorized as arguments, such as the sentence 'Fate is the future and the past,' which can be understood in various ways, each yielding different claims. Nonetheless, Roque argues that we should not avoid or dismiss these types of visuals or texts but instead strive to interpret them to uncover what they might be

[8] This point is also made by Gilbert. See above.

arguing. Therefore, it is not that visual arguments inherently lack propositions; rather, some visuals have specific claims, while others have a broader interpretive range where their claims are not narrowly defined. In some cases, such as a painting of a scenic view, visuals may not make a claim if we do not attribute any interpretation to them.

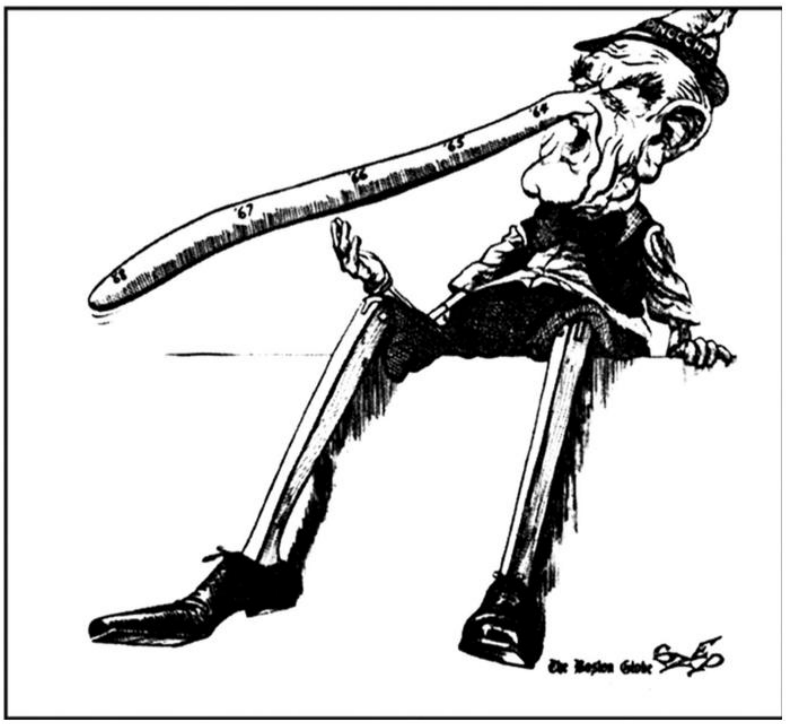
In conclusion, Roque and Groarke critique Gilbert by positioning themselves in the middle of the spectrum, where they reject the notion of imposing different criteria for evaluating different forms of arguments. They advocate for a perspective in which, regardless of the mode, interpretation, understanding, and evaluation remain consistent. They achieve this by refraining from reducing other forms of arguments to a logical form, as they do not propose a logical translation or reconstruction of visual arguments but instead offer a method to comprehend them in their expressed form.

Now I shall explore some alternative approaches to understanding visual arguments, as presented by Leo Groarke and Assimakis Tseronis.

2.8.1 How to understand visual arguments in their expressed form

In "Going Multimodal: What is a Mode of Arguing and Why does it Matter?" (2015), Leo Groarke argues that "adding modes to our theoretical toolbox is an important step toward a comprehensive account of argument" (2015, pp. 1). To achieve this, he develops the Key Component (KC) model to understand different modes of argument. According to Groarke, there are three key components in every argument: (1) the Act of Arguing, (2) the Argument itself, and (3) the Mode of Arguing. He contends that, regardless of the form of argument, examining these three components allows us to comprehend any mode of argument.

Here is an example of how Groarke applies his model to a visual argument (Groarke, 2015, pp.146). Alongside the image below, Groarke includes a caption indicating that this argument is a commentary on Lyndon Johnson’s promise not to send American soldiers to Vietnam. The quote is “We are not going to send American boys 9,000 or 10,000 miles to do what Asian boys ought to be doing for themselves.” (as cited in Groarke, 2015, pp.145)



Below is the KC table of the argument (Groarke, 2015, pp.146):

Act of arguing	*Argument*	*Mode of arguing*
The drawing of the calibrations marking the growth of Johnson's nose in 1964–1968	Premises ($s_1 \ldots s_5$): The details in the drawing of the nose	Visual (caricature)
Quote of Johnson saying "We are not going to send American Boys…"	Premise (n): Johnson said he was not going to send 'American Boys' to Vietnam	Verbal claim (caricature)
Depiction of Johnson as a lying Pinnochio	Sub Conclusion (l): Johnson is as depicted (ridiculous, a liar, etc.)	Visual (caricature)
	Implicit conclusion (r): Johnson should not be re-elected	Enthymeme

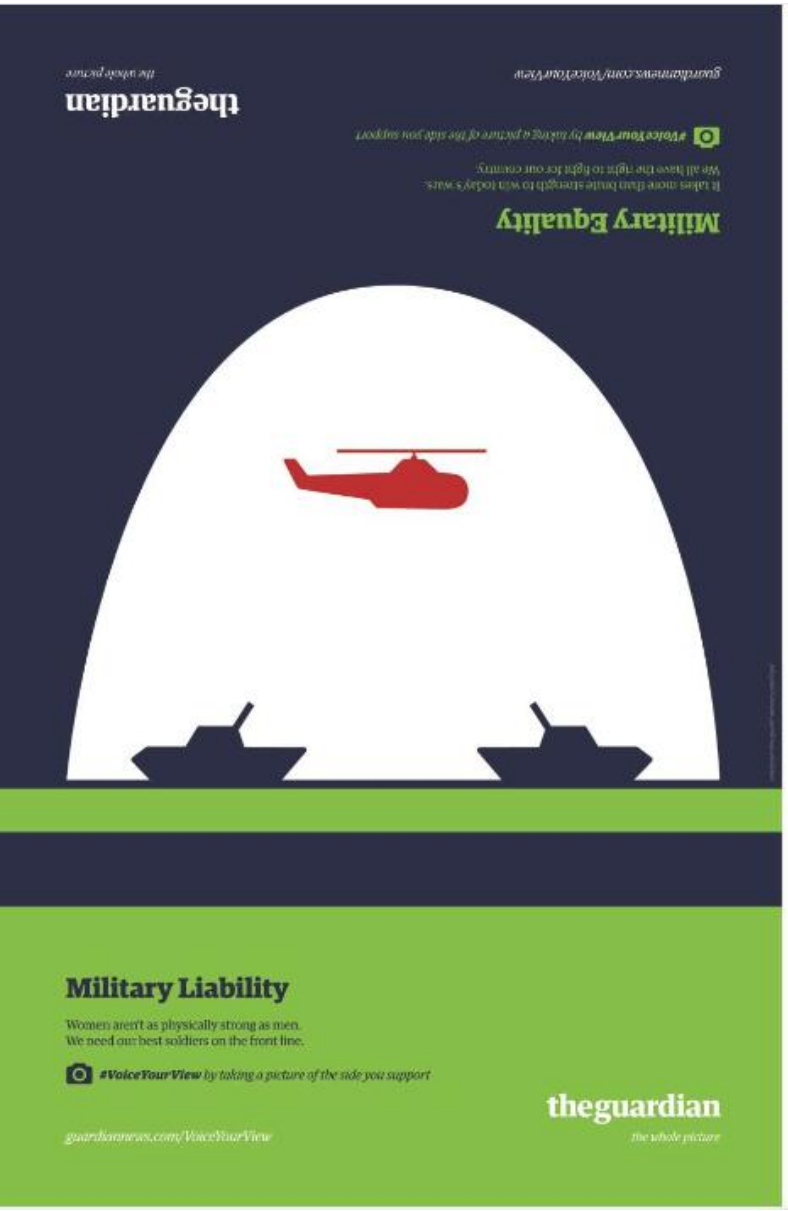
The significance of the KC model in the context of my research lies in its ability to avoid reducing a visual argument to a purely logical form. Instead, it interprets the argument in a manner that assigns it propositional value. This approach allows us to understand how visual arguments function on the level of logic and reasoning without diminishing their expressive value. Groarke's approach to visual arguments provides a valuable framework for interpreting them within the domain of logic and reasoning. However, it does not fully address the underlying emotions, and imaginative elements present in visual arguments. By translating

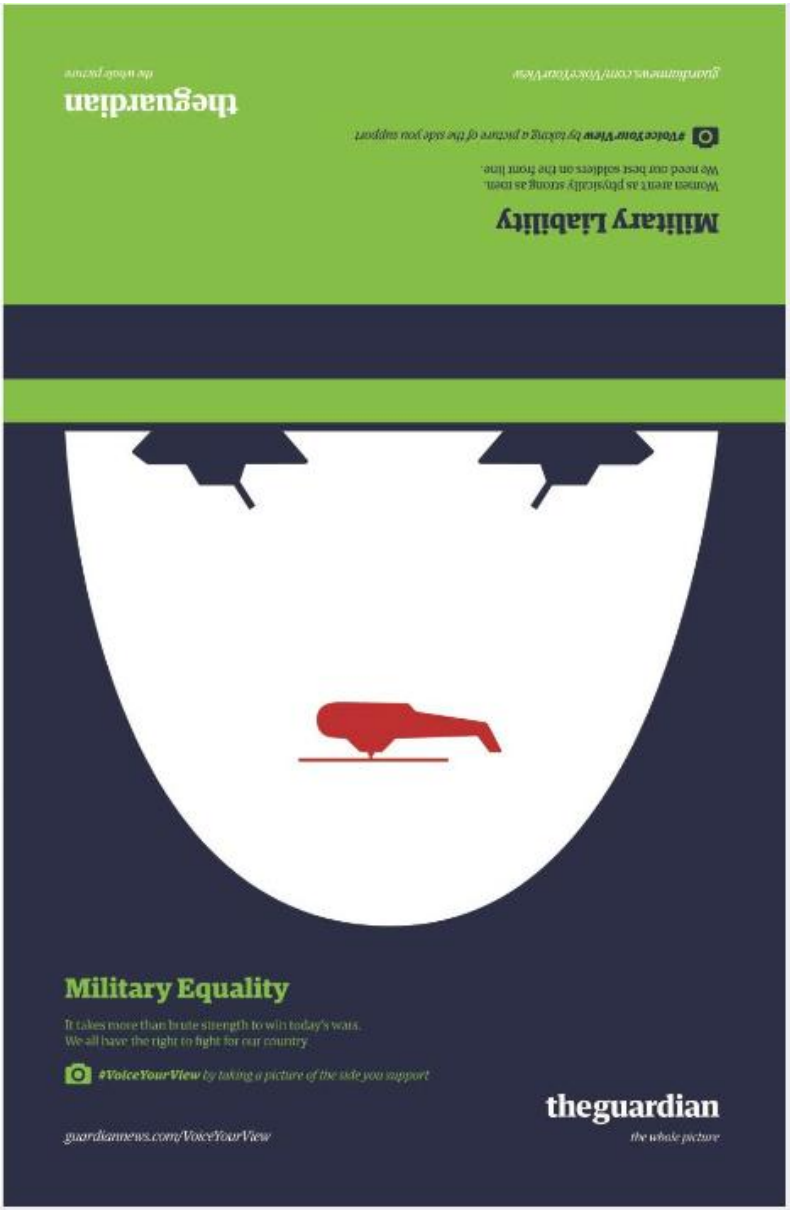
visual arguments into propositional forms, this approach overlooks the multi-dimensional nature of visual communication. Gilbert's critique highlights that such translation can miss the subtleties of emotional resonance and imaginative depth that are often central to the impact of visual arguments.

In the context of my research, this limitation is significant. Emotions and imagination play a critical role in how arguments are conveyed and understood, particularly in visual forms. Groarke's emphasis on propositional representation, while useful for logical analysis, tends to neglect these non-verbal and extra-logical elements that contribute to the overall meaning and persuasiveness of visual arguments. While Groarke's framework offers insights into the logical aspects of visual arguments, its inability to fully engage with the emotional and imaginative dimensions highlights the need for a more comprehensive approach. My research seeks to address this gap by developing a framework that acknowledges and integrates these elements without losing the logical backbone of argumentation. This approach ensures a richer understanding of visual arguments, one that captures both their logical and expressive dimensions.

Assimakis Tseronis investigates the argumentative value of visual styles, drawings, and colours (2021). He analyses an advertising campaign promoting the British newspaper The Guardian in the United States. Tseronis argues that it is not just what is depicted but also how it is depicted that makes a difference in the argument itself. The advertising campaign comprises four different topics, and for each topic, there are two posters: one is the standard version, and the other is an upside-down version of the same poster, representing the opposing view. Therefore, the regular version presents one perspective, while the inverted version of the same poster conveys the opposite viewpoint. The four topics covered in the campaign are women in the military, gun control, internet privacy, and the use of condoms in the adult film industry. Each poster includes a link where you can vote on your stance regarding the hotly debated topic. Tseronis argues that there are two layers to these posters: one encourages you to buy The Guardian, and the other addresses the debated topic itself (Tseronis, 2021, pp. 16-17).

Here is the poster that shows different views about women in the military (Tseronis, 2021, pp. 16-17):





In the initial version of the campaign poster labeled "Military Liability," the text states, "Women aren't physically as strong as men" and "We need our best soldiers on the front line." In the upside-down version, the text reads, "It takes more than brute strength to win today's wars" and "We all have the right to fight for our country." Tseronis then raises the question: "What is the function of the visual image?"

The first observation he makes in his analysis pertains to the usage of negative space. The illustrator, Noma Bar, employs empty space and page orientation to symbolically represent opposing views through visuals alone. Even without the accompanying text, the background information in the visual conveys a message. For instance, the red helicopter symbolizes women in the military, while the black tanks represent men in the military. In the first version, the male tanks appear to be targeting the female helicopter, implying that men are better soldiers than women. In the upside-down version, Tseronis argues that "the grey tanks and the red helicopter against the white background depict the face of a woman wearing a helmet" (2021, pp. 21). This analysis illustrates how visuals are an integral part of the argument and can effectively express a claim or argument.

Tseronis' analysis demonstrates how visuals can play an argumentative role in critical thinking and how the artistic style and design can carry a truth value that can be categorized as propositions. These examples are easy to read, and they have their definitive claims. So, the propositions can be understood from the visuals, and they require no further discussion to see what they mean. But problems may occur when we look at a different visual that has no specific meaning.

Contemporary literature on multi-modality and the propositional nature of visual arguments reveals a shared understanding that certain visuals can convey specific claims that are readily articulated in propositional terms. Scholars such as Groarke and Tseronis have offered insightful frameworks that demonstrate how visual arguments can be systematically analyzed and understood within the realm of logical reasoning. However, their approaches often prioritize the propositional nature of visual arguments, which, while valuable, inherently limits their capacity to fully engage with the emotional, imaginative, and aesthetic dimensions of such arguments.

This limitation becomes especially apparent when considering ambiguous visuals that resist definitive propositional interpretation. These visuals, by their very nature, evoke multiple meanings and often rely on subjective engagement, making their argumentative value less about definitive claims and more about the experiences and responses they generate. While Groarke’s and Tseronis’ models provide structured methods for understanding visuals as propositional carriers, they do not adequately address the richness of non-propositional elements that play a significant role in how we process and respond to visual arguments. Despite these limitations, the analyses and models discussed in this chapter are invaluable to

my research. They offer foundational tools for incorporating multi-modal elements into critical thinking, highlighting the potential of visual arguments to contribute to logical discourse. More importantly, they pave the way for a broader framework that integrates emotions, imagination, and aesthetic appreciation into critical thinking. These elements are often central to the persuasiveness and impact of arguments, yet they remain peripheral in frameworks that prioritise propositionality.

So. while Groarke's and Tseronis' approaches advance the study of visual arguments and offer key insights, they do not fully meet the demands of a comprehensive framework that includes the multi-dimensional aspects of argumentation. My work seeks to build upon these contributions by developing a more inclusive approach—one that respects the logical backbone of argumentation while also embracing the richness of emotions, imagination, and aesthetic experience. This broader framework will not only enhance our understanding of visual arguments but also expand the scope of critical thinking itself, making it more reflective of the diverse ways in which humans communicate and reason.

Conclusion

In the preceding chapter, I identified two significant gaps in critical thinking literature. The first pertains to the inadequate treatment of imagination and creativity within texts on critical thinking. While these texts mention these concepts, they fail to provide a comprehensive explanation of their significance in reasoning. The second gap involves an unbalanced examination of emotions, primarily portraying them as hindrances to thinking without exploring their potential positive roles.

In this chapter, I have examined and analysed contemporary literature on critical thinking and argumentation that could fill the mentioned gaps. The first approach, the inquiry approach developed by Bailin and Battersby, emphasizes dialogical, contextual, and dynamic structures within critical thinking. Although they touch on creativity and imagination, their exploration remains limited. Nonetheless, their insights provide a valuable foundation for my research in forging a new approach to critical thinking.

I have discussed the second approach, Michael Gilbert's multi-modal argument framework, in detail. I found his approach lacking as it tends to detach critical thinking from its logical structure. To mitigate this, I proposed a middle ground to enhance our comprehension of Gilbert's framework, rendering it more applicable to my research. Subsequently, I investigated

the issue of propositionality in multi-modal arguments. This issue holds immense importance in my research, being crucial for understanding arguments that do not manifest in traditional propositions. I referenced and analysed contemporary literature on multi-modal arguments to engage in this discussion.

In conclusion, it can be said that while contemporary transformative approaches in critical thinking literature offer valuable insights, they fall short of completely addressing the identified gaps. Nevertheless, these approaches serve as invaluable resources in my pursuit to formulate a new account of critical thinking that effectively bridges the two identified gaps.

In the next chapter, I will explore in greater depth the issue of propositional and non-propositional representational systems introduced in this chapter. This discussion will provide the theoretical groundwork for addressing the gaps identified and incorporating emotions and imagination into critical thinking.

Chapter 3: Rethinking Propositionality: Towards an Inclusive Framework for Critical Thinking

In the previous chapter, I explored how the concept of propositionality is problematized in critical thinking literature, particularly regarding multi-modal arguments. Visual arguments, for example, prompt questions about whether they inherently possess propositional structures suitable for logical evaluation, or whether their complexity resists reduction to purely logical forms. Although scholars have sought frameworks to evaluate these arguments logically by reducing them to propositional components, this approach risks diminishing their expressive and creative dimensions. In this chapter I have addressed this limitation by proposing a hybrid framework that integrates the logical rigor of traditional critical thinking with the expressive richness of non-propositional forms.

To establish this hybrid approach, I will first clarify the distinctions between propositional and non-propositional representations. Through illustrative examples, I will show how arguments often combine both types of representation and highlight the contributions each makes to reasoning processes. This demonstration will show the importance of developing an account of propositionality, one that will help with my project of imagination, emotions, and aesthetic sensibilities into reasoning. By proposing such an integrated account, this chapter functions as a conceptual bridge connecting the logical rigor of propositional representation with the expressive depth of non-propositional forms. This framework not only addresses the gaps identified in Chapter 1 but also prepares the groundwork for the aesthetic and emotional inquiries presented in Chapters 4 and 5.

So, in this chapter I have developed an account of propositionality that accommodates multi-modal arguments without either sacrificing their logical backbone or reducing them to logical form. By doing so, it lays the foundations for a more inclusive form of critical reasoning that can include emotions and imagination.

3 Propositional and Non-propositional Representations

The distinction between propositional and non-propositional representations has its roots in the work of Gottlob Frege and continues through philosophers such as Bertrand Russell and Ludwig Wittgenstein. (Kozak, 2023, pp.43). Propositional representations, in this tradition, are understood as language-like structures that render the content of a representation both meaningful and expressible. In contrast, non-propositional representations are grounded in experience, perceived holistically, and characterized by non-hierarchical structures. They rely on specific principles of interpretation rather than formal, canonical rules. In this section, I will present the core features of both propositional and non-propositional representations. This demonstration will help clarify how critical thinking can employ a hybrid representational model. I begin with an exploration of non-propositional representations.

3.1 Non-Propositional Representations

When comparing propositional and non-propositional representations, we are examining how the mind encodes and processes information. Propositional representations use symbolic systems, such as language or mathematical notation, to convey meaning in a structured, rule-governed, and hierarchical format. For instance, the statement *"snow is white"* entails *"snow has a color,"* but not the reverse. This logical structure enables specific inferences based on syntactic and semantic relationships. (Kozak, 2023, pp.171). A more expressive example of a propositional representation can be found in Virginia Woolf's poetic line: *"The snow was falling steadily, and she could now hear the slither and flop which it made as it slid down the roof and fell to the ground."* (Woolf, 1928/2002, pp. 90). While still structured linguistically, this sentence evokes not only the appearance of snow but also its motion, texture, and atmospheric effect, demonstrating that propositional language, especially in literary form, can carry rich sensory and emotional content. However, we will see below that non-propositional representations can convey much more in one go.

In contrast, non-propositional representations, such as images, sounds, or embodied experiences, convey meaning holistically rather than sequentially. As Kozak (2023, pp.45) notes, a single image of snow can simultaneously communicate its whiteness, texture, temperature, and even evoke personal memories. Unlike propositional language, which unfolds meaning through discrete elements, non-propositional forms offer an immediate, integrated impression. For example, if someone is unfamiliar with snow, the word "snow" alone may not provide much insight. A photograph, however, can instantly reveal not just its colour but also its feel, context, and associated emotional tone. As an example, let's look at the *Hunters in the*

Snow by Pieter Bruegel the Elder:

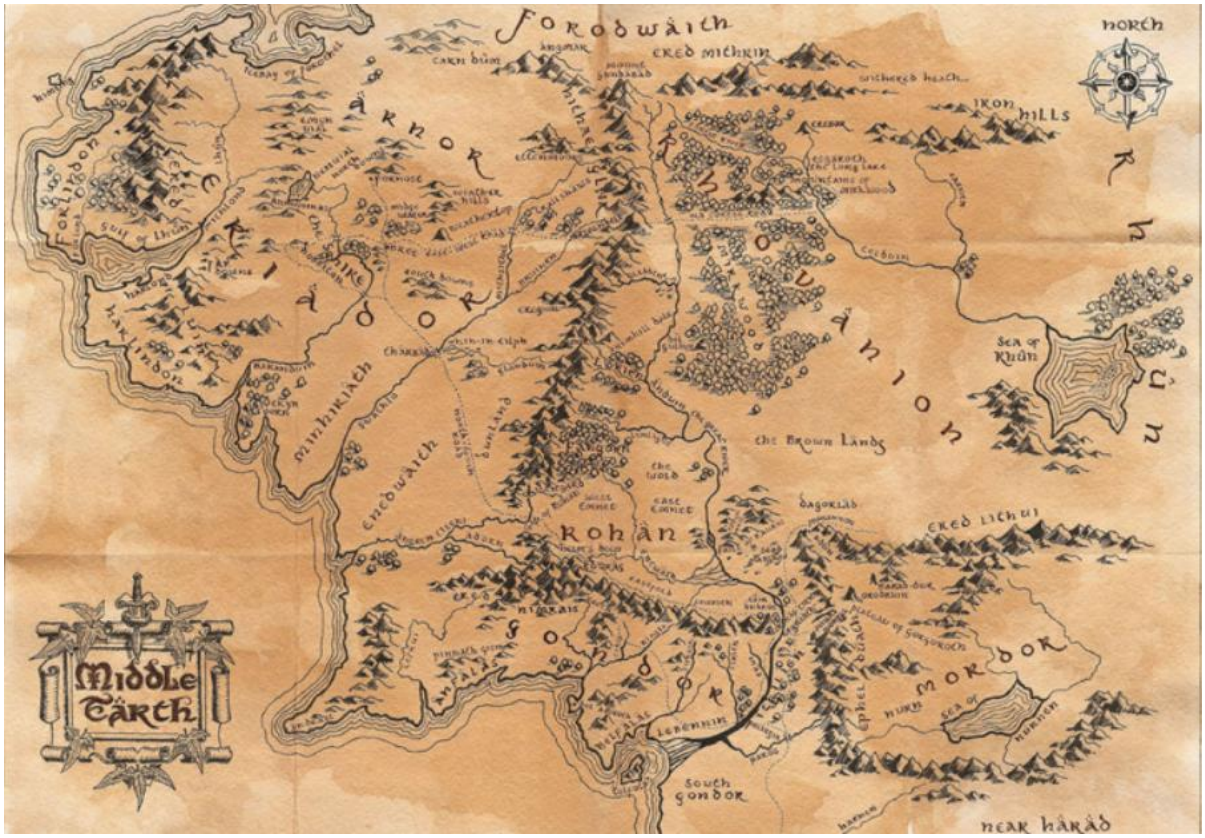
Pieter Bruegel the Elder, "The Hunters in the Snow," 1565. Oil on, 117 cm × 162 cm (46 in × 63¾ in). Kunsthistorisches Museum, Vienna,

The painting does more than depict the whiteness of snow; it visually conveys the snow's texture, depth, and coldness. Through the layered application of paint, the interplay of shadows on the icy ground, and the stark contrast between the snow and dark tree branches, it evokes a tactile experience. Viewers do not simply recognize snow but can almost feel the brittle crunch underfoot, the damp chill in the air, and the sharp bite of the wind. Such sensory immediacy is difficult to achieve through propositional language alone. Beyond physical sensations, the painting establishes a distinct emotional tone. The weary hunters and their dogs trudging through snow convey quiet solemnity. The muted colour palette reinforces this atmosphere of fatigue and cold, while the distant village, with smoke rising from its chimneys, hints at warmth, shelter, and comfort through visual contrast. Together, these elements evoke lived experiences rather than merely factual content. Unlike text that unfolds sequentially, the painting simultaneously layers multiple meanings. Returning hunters, skaters scattered across frozen

ponds, and an expansive mountainous background coexist within a single visual frame, allowing nonlinear and immersive engagement. Rather than explicitly stating that winter is harsh yet beautiful, the painting communicates these themes organically through visual cues. This non-propositional mode of communication invites immediate understanding by engaging viewers' perception and imagination.

One of the key characteristics of non-propositional representation is its holistic nature. Kozak highlights how such representations like pictures or maps integrate various properties into a single, cohesive whole. (2023, pp. 171). Green and Quilty-Dunn (2021) and Kulvicki (2015) describe holism as the fusion of multiple informational elements within one unified representation. Unlike propositional formats, which isolate and sequence individual claims, non-propositional representations encapsulate several dimensions simultaneously. Maps offer another compelling example. When reading a map, we do not process information as isolated data points; rather, we grasp spatial relations, scale, orientation, and context all at once. This simultaneous presentation emphasizes the holistic quality of non-propositional representation.

If we were given a written description of a map, we would need to read it sequentially, one detail at a time. This process is inherently hierarchical, as each statement builds on the previous one to construct a full understanding of the map. In contrast, a visual map presents all relevant information simultaneously, allowing for immediate and integrated comprehension. To illustrate this distinction, consider a *map of Middle earth:*



Retrieved from: https://nz.pinterest.com/pin/861594972435036938/ (Retrieved at 2024)

When we look at the above map, certain elements are propositional: we read the names of places, the compass indicating directions (e.g., north at the top), and the map's title in the corner. These are discrete pieces of information that can be expressed in sentence form. However, much of the navigational information is conveyed non-propositionally. Spatial relationships, such as Rohan is closer to Gondor then to Mordor, or whether the Shire is in the north or south, are grasped visually and holistically. With a single glance, we perceive the relative positions of locations, the presence of mountains or rivers, and possible routes of travel. This simultaneous presentation of multiple layers of information is a feature of non-propositional representation. Now imagine replacing the map with a written description: "Mordor is in the east; to its west are mountains; beyond the mountains, heading southwest, lies Gondor..." and so on. It would require hundreds or even thousands of sentences to capture what the map communicates at once. This is precisely what distinguishes non-propositional representations, they present complex, interrelated information in a unified, immediate way that propositional descriptions must unfold step by step.

Another key distinction between propositional and non-propositional systems lies in the concept of natural generativity. While propositional representations rely on symbolic systems, non-propositional representations rely on iconic systems. (Kozak, pp.166). Unlike symbolic systems, which rely on explicitly taught, arbitrary rules, iconic systems are intuitively generative. Symbolic knowledge, such as language or mathematics, requires deliberate instruction and prior learning. In contrast, iconic representations can be understood without prior exposure, often through immediate recognition. For instance, a person can intuitively grasp the meaning of a new image without having seen it before, whereas understanding a symbolic system like Turkish requires formal learning. Non-propositional representations are rooted in recognition that operates independently of propositional content. Consider a child encountering three different drawings of triangles without any prior knowledge of geometry. Through perception alone, the child can recognize them as similar shapes. However, to label them as "triangles" requires the use of propositional representation and its associated symbols. This does not mean that a child cannot grasp something before acquiring written language. They can form mental labels or later express them verbally. However, all such labeling refers back to other labels and contributes to the overall labeling of the triangle. In other words, although different labeling possibilities exist, they all rely on propositional representations, that is, on having some tool or medium for labeling. This capacity for immediate recognition is one reason non-propositional representations are effective at engaging the imagination, emotions, and senses. Their meaning is not processed solely through rational analysis but also through embodied and perceptual experience.

Language acquisition offers a useful analogy. While language is fundamentally propositional, we initially engage with it through sensory recognition by hearing and seeing it. We become familiar with its patterns at the perceptual level before we logically categorize and label them. The same principle applies to emotional or auditory expressions. For example, in Turkish, a prolonged "Aaaaaa" sound that drops from a high to a low pitch can convey sadness. A baby hearing this may recognize its emotional tone through the sound pattern alone, without any explicit knowledge of its meaning. This illustrates how understanding can emerge from perceptual familiarity, not just symbolic interpretation.

Another defining quality of non-propositional representations is their richness. Images, as we saw above, convey a depth and complexity of meaning that often surpasses propositional representations. (Kozak, 2023, p. 21). In other words, their communicative capacity extends beyond what can be captured in discrete, language-based propositions. Consider a graph: in a

single frame, it presents layers of complex data, trends, relationships, comparisons that would take pages of text to explain in propositional form. This richness is not limited to informational content; it also includes experiential depth. One notable experiential element is colour, which can exceed our conceptual vocabulary. The range of colours we can perceive often goes beyond the colours we know by name. When viewing a painting, for instance, we might encounter subtle shades or hues for which we have no specific terms. Yet, we can still perceive and appreciate them, and they contribute meaningfully to our overall understanding of the image. Think again of the snow-covered scene mentioned earlier. Even without fully grasping the physical concept of snow, a viewer can still interpret and respond to the painting. This illustrates that the perception of colour, and, more broadly, visual experience operates independently of propositional knowledge. A similar process occurs when a child recognizes a triangle before knowing the formal concept of "triangle." These examples emphasize the expressive richness of non-propositional representations.

Being grounded in perceptual experiences is one of the features of non-propositional representations. Importantly, I do not restrict this to visual perception alone, it also includes touch, hearing, and taste. Being rooted in perceptual experience creates several challenges for non-propositional representations: they are not truth-valuable, nor are they precise in the way propositional representations can be. They do not follow explicit inferential rules, because traditional inference, as grounded in logic, does not apply to them. (Kozak 2023, p. 17). Inference rules derived from logic function within symbolic representational systems, where symbols stand for logical operations or atomic elements of those operations. In contrast, consider Cezanne's *A Modern Olympia* (1873–4). Here, colours lack fixed boundaries; icons blend into one another, while still subtly distinguishing themselves. It is difficult to isolate atomic elements of logic within the image to apply standard inference. Thus, by nature non-propositional representations do not follow predetermined inferential rules. Instead, they generate their own logic. An image provides its own context and operates through a unique, non-propositional and iconic language. A viewer familiar with Cezanne's work would recognize that the seemingly arbitrary colours and forms are in fact meaningful within his particular visual language. Understanding such works requires learning this language, similar to learning a new linguistic system, but one expressed through lines and colours rather than words.

Now that we understand non-propositional representations as grounded in perceptual experience and not governed by the inferential rules typical of propositional representations,

we can recognize their inherently interpretive nature. Unlike propositional forms, which follow clearly defined logical structures, non-propositional representations encourage speculative and open-ended interpretation. Yet, this interpretive process is not dictated solely by the representational form itself. The viewer's role is equally crucial. This dynamic will be further examined in the next chapter through the lens of aesthetic experience, imagination, and emotion.

Another feature of non-propositional representations is that they require active participation of the imagination. Cubism offers a good case of this interpretive demand, often depending on the viewer's imaginative engagement to make sense of the work. Consider Georges Braque's *Violin and Candlestick* (1910):

Violin and Candlestick by Georges Braque, 1910, SF MoMA. Retrieved from: https://www.thecollector.com/10-iconic-cubism-art-and-their-artists/

The title of the painting suggests the presence of a violin and a candlestick. However, upon viewing the work, it becomes evident that these objects are not represented in a conventional or immediately recognizable form. Instead, Braque employs fragmented and overlapping

geometric shapes that obscure direct representation, inviting multiple and subjective interpretations. At first glance, one might perceive the outline of a violin at the centre of the painting. Yet, just as easily, the painting can appear as an arrangement of abstract geometric forms or even as a cluster of fragmented, rock-like structures. This visual ambiguity demands the viewer's imaginative engagement that prompts them to reconstruct, reinterpret, and make sense of the forms through their own perceptual experiences.

We can see from the above example that non-propositional representations might resist definitive interpretation. They invite the viewer into an active process of meaning-making, engaging not only cognitive but also affective faculties. This open-endedness is a central feature of non-propositional representation: it encourages deeper reflection, emotional resonance, and aesthetic sensitivity. Unlike propositional representations, which typically aim to convey a determinate meaning or truth-claim, non-propositional forms, such as images or pieces of music, often leave space for ambiguity and multiplicity of interpretations.

However, it is worth considering whether this distinction holds uniformly across all cases. Not all non-propositional representations are equally open-ended, and not all propositional representations are rigidly determinate. For example, a snapshot of a family at a picnic, a seemingly straightforward photograph, may convey a very specific, unambiguous scenario: it depicts certain individuals at a particular moment in time, and its meaning might be clear and settled for both those within the photograph and those familiar with the context. In contrast, a highly metaphorical or abstract poem, despite being composed of propositional content, might resist definitive interpretation and engage the reader's imagination and emotions in complex, layered ways. This suggests that while non-propositional representations are often characterized by openness and interpretive flexibility, and propositional ones by clarity and specificity, the boundaries between them are not absolute.

In light of this, it may be more accurate to see openness to interpretation and emotional resonance as tendencies rather than strict dividing lines between propositional and non-propositional forms. The medium and context both play crucial roles. For instance, a conceptual artwork that incorporates textual elements might blur the line between propositional and non-propositional representation, inviting both logical analysis and aesthetic engagement. Similarly, visual representations can range from highly codified diagrams, intended for precise communication, to abstract paintings that resist any definitive reading. These examples show that while the distinction between propositional and non-propositional representations is

helpful for analytical clarity, in practice, many works sit somewhere along a spectrum, with varying degrees of openness, emotional impact, and interpretive complexity.

The painting's fragmented forms, muted colour palette, and shifting perspectives evoke a sense of disorientation or tension, potentially stirring feelings of curiosity, wonder, or unease. In contrast to realistic depictions that offer immediate clarity, Braque's work immerses the viewer in an exploratory process, one shaped by their own perceptual and emotional involvement. Furthermore, this process provides a richer form of engagement by moving beyond mere cognitive recognition. The ambiguity of the representation heightens the viewer's sensitivity to composition, texture, and spatial relationships, activating a deeper sensory awareness. This heightened perception can elicit visceral responses; one might feel the tension among geometric fragments or sense a rhythm in the arrangement of forms.

This is what makes non-propositional representations such powerful tools: they engage not only the intellect but also the emotions and imagination. Understanding a work like *Violin and Candlestick* requires more than rational analysis, it calls for an interpretive process that integrates affective and imaginative faculties. In doing so, it demonstrates how non-propositional representations can enhance critical thinking. This paves the way for more dynamic mode of reasoning, one that fuses aesthetic experience with logical processes. In the next chapter, I will examine how aesthetic experience functions in such cases and explore how imagination and emotion can be integrated into critical thinking. Thus, I will offer a more holistic and enriched approach to critical thinking.

Now, to better understand non-propositional representations by contrast, I will briefly turn to propositional representations. As they are more widely understood and not the primary focus of this research, the discussion will remain concise.

3.2 Propositional Representations

Kozak (2013, p. 13) argues that every thought requires a medium for expression. For him, this is the main reason why propositional representations are used in human communication. They are inherently language-like because their primary purpose is to convey the thought processes in our minds to others in a comprehensible way. This is also one of the reasons why propositional representations must be capable of expressing a claim in a precise, definite and truth-evaluable manner, in contrast to non-propositional representations. An intriguing question

arises when we consider whether visual representations, particularly non-propositional ones, can form the basis of agreements or conventions independently of linguistic or propositional mediation. Historically, many symbolic systems have relied heavily on visual forms to convey shared meanings. For example, heraldry developed a codified visual language in medieval Europe, where coats of arms used colors, shapes, and icons to signify family lineage, status, or alliances. Similarly, maritime signal flags and alchemical symbols functioned through standardized visual codes, allowing practitioners to communicate specific messages without relying on written or spoken language.

These examples show that purely visual systems can indeed serve as vehicles for formal agreements or structured communication, provided there is a shared understanding of the symbols' meanings. However, one might argue that these systems, although visual in presentation, are fundamentally supported by propositional content. Each icon or arrangement is associated with a determinate meaning that could, in principle, be translated into propositional statements. In this way, while the medium is visual, the underlying logic remains propositional. When we turn to more open-ended forms of non-propositional representation, such as abstract art or expressive imagery, the situation changes. It is difficult to imagine formal agreements being made on the basis of an abstract painting or a musical composition because these forms lack the fixed symbolic associations necessary for precise, determinate communication. Their richness lies precisely in their openness to interpretation and their resistance to propositional capture. Therefore, while historical examples demonstrate that visual representational systems can facilitate formal agreements, these systems seem to blur the boundary between non-propositional and propositional representation. This highlights an important nuance. Visuality alone does not determine whether something is non-propositional; what matters is whether the representation carries a fixed, determinate meaning or resists such closure. The potential for formal agreements in visual media thus depends on the extent to which those representations have been codified into a stable symbolic system.

With this in mind, let me now examine the main features of propositional representations in contrast to non-propositional ones. It would be helpful the keep this analogy in mind: we can think of these two forms of representation as yin and yang, distinct but complementary. Together, they complete the whole of human communication, thought, and expression. This analogy will be echoed in the last section, where a hybrid account of propositional and non-propositional representations is discussed.

The first key distinction between propositional and non-propositional representation lies in the type of representational systems used. Propositional knowledge operates within a symbolic system, whereas non-propositional knowledge relies on an iconic system. Iconic representations resemble the things they depict; an image of an apple looks like a real apple. In contrast, symbolic representations, like the word "apple," do not resemble the object but function within an arbitrary system of meaning. These symbols only carry meaning because of agreed conventions. For example, "dog" refers to the concept of a dog, but without the symbolic system of language, the letters d-o-g would be meaningless. This symbolic mode of representation extends beyond spoken or written language to include systems like musical notation and formal logic. In all these cases, meaning is conveyed through established symbolic structures rather than resemblance.

The use of symbolic representation inherently imposes structure, which is the second key feature of propositional knowledge. This structure takes the form of a canonical composition, foundational principles that guide how the system operates. These are often called inferential or operational rules. For example, in mathematics, the equation 2+2=4 reflects the application of such rules. The operation of addition follows a defined principle that ensures consistency and predictability. This structured framework allows propositional knowledge to be understood, shared, and manipulated by different individuals. While expressions may vary across contexts, the underlying rules remain constant.

The third defining feature of propositional representations is that they are truth evaluable. (Kozak, 2023, pp.35). This stems from their structured nature, defined by canonical composition and inferential rules, which allows propositions to be evaluated as true or false. Their transparent structure supports clarity, consistency, and evaluability. Propositional systems also offer flexibility: they can be translated, simplified, and clarified across different symbolic forms, making complex ideas accessible to anyone familiar with the system. While non-propositional systems can also express truth, their meaning is often more ambiguous and open to interpretation, which reduces their perceived reliability. This openness might be seen as a limitation. However, in the next chapter, we will explore how this very feature can be used to our advantage.

The fourth feature of propositional representations is that they function within clear and structured frameworks, allowing for the articulation of verifiable states of affairs (Kozak, 2023, p. 36). Predication in propositional systems is both compositional and combinatorial. For example, from the components of the statements "snow is white" and "a triangle is red," we

can construct new assertions such as "snow is red" and "a triangle is white." This reflects combinatoriality, the ability to rearrange existing components into new propositions. In addition, if the statement "snow is white" is true, we can infer the more general proposition that "snow has a colour" (Kozak, 2023, p. 171). This illustrates compositionality, where the meaning of a complex proposition depends on the meanings of its parts and how they are combined. These examples show a hierarchical structure: higher-level truths can be built from lower-level ones, though the reverse does not necessarily hold. For instance, knowing that "snow has a colour" does not confirm that "snow is white." The difference between compositionality and combinatoriality lies in their focus. Combinatoriality concerns the rearrangement of components to form new propositions, while compositionality concerns how the meaning of complex propositions depends on their parts. In the examples above, the generation of new sentences like "snow is red" illustrates combinatoriality, whereas inferring "snow has a colour" from "snow is white" illustrates compositionality.

The fifth feature of propositional representations is that they convey information in discrete units. A statement like "snow is white" communicates a single attribute while omitting others, such as shape or texture. Each additional detail must be expressed in a separate statement. For example, "snow is cold" or "snow is soft." This segmentation allows for clarity and efficiency, making information easier to process and communicate. However, it also restricts expression to isolated claims that limits the ability to present multiple qualities or dimensions simultaneously. As shown above, non-propositional representations are not limited by this structure. As illustrated by the example of a map, they can convey multiple layers of information simultaneously.

Now that we have outlined the differences between propositional and non-propositional representations, I will explain how they work together. My aim is not to reduce one to the other or to treat them as mutually exclusive. Rather, I argue that both forms of representation should coexist and complement each other in building a framework where imagination, emotion, and perception can be meaningfully integrated into critical thinking. This integration has the potential to transform how we understand and apply critical thought.

I also want to emphasize that this comparison is not intended to suggest that non-propositional representations are superior to propositional ones. In fact, the prevailing view often favours propositional representations. However, I take no position of superiority. Instead, my goal is to

clarify their differences in order to better understand how they interact. Thus, by demonstrating how they function together, I aim to open a space for incorporating aesthetic qualities into critical thinking.

3.3 Non-Propositional and Propositional Working Together

Understanding the interplay between non-propositional and propositional representations is important for comprehending how they function together during the act of critical thinking. While they possess distinct characteristics and operational principles, they are not mutually exclusive. Instead, they complement each other by providing varied perspectives and allowing not only logic, but also imagination, emotions, and feelings to contribute to the critical thinking process.

Non-propositional representations are grounded in perceptual experience and, without relying on explicit inferential rules, provide a holistic understanding of phenomena. Images, paintings, and sensory perceptions simultaneously convey complex information, engaging imagination, emotions, and feelings in ways propositional language cannot. Remember the map example above: initially, we grasp its spatial layout and landmarks non-propositionally through intuitive perception. Subsequently, we shift to propositional understanding by reading street names and distances, enabling navigation. This illustrates how non-propositional recognition often precedes propositional judgment. This demonstrates how both forms of representations jointly work together.

On the other hand, propositional representations, characterized by symbolic systems and structured inferential rules, offer precision and clarity in articulating verifiable states. Through logical deduction and linguistic expressions, propositional knowledge enables the formulation of explicit claims and the evaluation of truth values which are necessary for critical thinking. Excluding this structure would be making the same mistake that Gilbert did. In fact, through the combination of non-propositional and propositional representations, we can understand Gilbert's examples of multi-modal arguments without going to extreme view of critical thinking. Remembering the example from Chapter 2, "I love you" can work as an argument because love itself, has a non-proportional value to the other person and thus, has stronger influence to convince the other person. However, verification of that statement is done through proportional systems by checking the criteria for whether that person really loves the other.

Despite their differences, non-propositional and propositional representations can work together to enhance critical thinking. Non-propositional representations open space for creative exploration and intuitive insight by engaging imagination and emotions. They offer alternative perspectives and challenge conventional interpretations that can encourage open-ended inquiry and creative thought. This can strengthen our interpretative abilities when engaging with arguments, improving both our understanding and reconstruction of them. At the same time, propositional representations, with their logical inference rules, are essential for evaluating the validity of arguments and deciding whether they should be accepted or rejected.

My main argument in this chapter is that in practice, critical thinking often involves the interplay between these two modes of representation. When confronted with complex issues, individuals may employ non-propositional representations to grasp the holistic context and emotional significance that supplements their understanding with propositional analysis to evaluate evidence and formulate reasoned judgments. Let me illustrate this point with two different examples. The first example is an argumentative scenario involving two friends, Furkan and Aaron. Furkan confides in Aaron about a hardship he's facing, expressing remorse for his behaviour at the office:

Furkan: I'm not sure what happened. I feel terrible for slamming the door on other students. I'm not sure if I can go back to work there.

Aaron: It's okay, everyone has moments like that from time to time.

Furkan: But now everyone probably thinks I'm aggressive and rude.

Aaron: I understand why you might feel that way, but don't worry. People are more understanding than you think.

In this exchange, how does Furkan know that Aaron truly understands him? On a propositional level, Furkan might be convinced because Aaron verbally expressed understanding. However, there's also a non-propositional layer that is not conveyed in the written dialogue. This includes the tone of Aaron's voice, his facial expressions, their shared history, and Furkan's own emotional state. All contribute as non-propositional elements influencing Furkan's conviction.

Now, let's consider the second and more straightforward argument:

P1: Suffering is bad.

P2: When animals are killed, they suffer.

C: Therefore, we should not kill animals.

Here, the question arises: How do we understand that suffering is bad? We comprehend it because we, too, experience suffering. We associate the negative feelings and emotions that accompany suffering with the animals undergoing the procedure. However, we also possess the concept of suffering as a propositional representation, which we then apply to animals, recognizing them as living beings capable of experiencing suffering. Once again, we witness a combined utilization of both propositional and non-propositional representations. Any argument suggesting that the understanding and reasoning process is solely propositional would fail to adequately explain how we comprehend the concept of suffering or ascertain if a friend genuinely understands us. As we have seen from the examples, non-propositional and propositional work together in the process of critical thinking.

The interaction between propositional and non-propositional representations not only cultivates cognitive flexibility but also lays the foundation for integrating emotions and imagination into critical thinking. Chapter 1 identified two primary gaps in traditional critical thinking frameworks: the lack of discussion on imagination and the one-sided treatment of emotions. By understanding how propositional and non-propositional representations work together, I can create the necessary groundwork for exploring how emotions and imagination can be systematically incorporated into reasoning.

This is particularly important in aesthetic and creative domains, where non-propositional representations play a significant role in meaning-making. Consider Georges Braque's *Violin and Candlestick* (1910) from above, a Cubist painting that challenges conventional representation. The fragmented and geometric composition resists a single interpretation. Viewers might recognize a violin in the centre of the painting, or they might perceive it as an abstract collection of shapes. The painting's openness invites the engagement of imagination, as viewers must reconstruct meaning based on personal perception. At the same time, it elicits emotions, curiosity, intrigue, or even frustration, based on the ambiguity of its form. This engagement with art highlights how imagination and emotions function in reasoning processes that extend beyond rigid structures. Just as aesthetic experience demands active participation, critical thinking can benefit from a similar integration of perceptual and affective engagement. Rather than treating imagination and emotions as peripheral to reasoning, I can examine how they contribute to deeper comprehension, alternative perspectives, and more creative judgments in critical thinking.

Thus, the study of non-propositional and propositional representations is not just an abstract theoretical exercise, it directly informs how we can address the gaps identified in Chapter 1. By recognizing their combined role in both critical thinking and aesthetic experience, we set the stage for an expanded model of critical thinking, one that moves beyond standard approaches to incorporate the full range of human cognitive and affective faculties.

Conclusion

In this chapter, I have argued that the combination of propositional and non-propositional representations is actively used in critical thinking. The purpose of this argument is to establish a foundation for integrating imagination, emotions, and feelings into critical thinking, as these cognitive faculties are particularly active in non-propositional representations.

To build this argument, I first demonstrated non-propositional representations through relevant literature, illustrating their role in conveying meaning beyond structured linguistic or symbolic forms. I then provided a comparative discussion of propositional representations, which, though well-established, serve as a necessary counterpart to non-propositional representations in reasoning processes.

Following this, I demonstrated how these two forms of representation, propositional and non-propositional, interact within critical thinking. By illustrating their dynamic interplay, I established that critical thinking is not solely dependent on logical, structured reasoning but also involves perceptual, emotional, and imaginative engagement. This interaction creates the necessary framework for incorporating emotions, imagination, and feelings into critical thinking.

The insights gained in this chapter pave the way for the discussion in the next chapter, where I will explore how emotions, imagination, and aesthetic experience contribute to critical thinking. By understanding how non-propositional elements already function within reasoning, I can further investigate their potential to enhance critical thinking in ways that traditional propositional approaches alone cannot achieve.

Chapter 4: Investigation of Emotions, Feelings, and Imagination for Critical Thinking

In the previous chapter, we saw how non-propositional and propositional representations work together in critical thinking. I also explored their differences, emphasizing what non-propositional representations can offer for transforming critical thinking. Propositional representations are already well-investigated and developed, as we saw in Chapters 1 and 2. Since the features of non-propositional representations seem to conflict with the standard approach to critical thinking, such as precision, rigor, and clarity, they are not typically researched in this context. Thus, the gaps that are identified in Chapter 1 still remain. Those gaps are (1) an absence of substantive engagement with imagination, and (2) a reductive and predominantly negative treatment of emotions.

To explore how non-propositional representations can enhance critical thinking, I will investigate aesthetic experience. Aesthetic experience provides rich examples of non-propositional representational systems in which imagination, emotions, and feelings are highly engaged. By examining how these faculties operate within such experiences, I aim to understand their roles in non-propositional representation. This understanding will help me implement these faculties in critical thinking. So, the goal is to demonstrate how imagination, emotions, and feelings can be beneficially applied to critical thinking.

Throughout this chapter, I draw primarily on Mikel Dufrenne's phenomenological account of aesthetic experience. Dufrenne offers a particularly helpful framework for exploring how imagination, emotions, and feelings are actively involved in aesthetic experience. His phenomenological perspective provides valuable insights into how these faculties interact and function during aesthetic experience, revealing their cognitive and affective roles. This makes his work especially suitable for my purposes, as it gives me a strong conceptual foundation for understanding how such faculties might also operate within critical thinking. Since the main aim of this chapter is to show how imagination and emotion can enhance critical thinking, Dufrenne's framework helps bridge the gap between aesthetic experience and the cognitive demands of reasoning. I acknowledge that Dufrenne's account is only one among several

influential views on aesthetic experience and the aesthetic attitude, but I have chosen to focus on his work because it most directly supports the goals of this chapter.[9]

Throughout the chapter, my focus will be on feelings, emotions, and imagination, since their discussion in the context of critical thinking is lacking in the literature. My investigation of emotions and imagination will benefit from relevant and contemporary discussions in the literature revolving around aesthetic experience. Rather than looking at emotions and imagination by themselves, I will look at them in the context of aesthetic experience.

In this chapter, I will first discuss the aesthetic attitude as a way of approaching the object of inquiry, which can be anything from an artwork to an argument. Second, I will discuss imagination in aesthetic experience. We will see that imagination plays two main roles in aesthetic experience: (1) understanding and (2) transforming. Then, we will see how imagination can enhance critical thinking. Lastly, I will examine emotions and feelings in aesthetic experience and discuss how they can be used to enhance critical thinking.

Aesthetic experience is not confined to imagination, emotions, and feelings, it encompasses much more. However, in this chapter I have focused specifically on these three faculties because they are underexplored in the literature on critical thinking. One might then ask: why bring in aesthetic experience at all? The answer is that examining how imagination, emotions, and feelings function within aesthetic experience allows for a better understanding of these faculties. This understanding can then inform their application in critical thinking. Thus, the focus is not on aesthetic experience as a whole, but on how these particular faculties operate within it and how they might be integrated into critical thinking. As for the aesthetic attitude, it is not treated here as part of the aesthetic experience, but rather as a preparatory stance, an orientation one adopts before engaging with an aesthetic object. It is, in this context, a way of approaching rather than experiencing.

[9] Philosophers have drawn on the concept of aesthetic experience for a range of purposes. Some emphasize its educational value in cultivating emotional and moral sensibility (Schiller 1795/1989), while others view it as a distinctive form of cognitive engagement with the world or with deeper metaphysical truths (Schopenhauer 1818/1958). It has also been used to justify serious engagement with the arts and criticism (Shelley 1832/2003) and to distinguish high art from other forms of cultural expression (Collingwood 1938/1958). Although the concept remains central to many philosophical discussions, some have questioned its overall coherence or usefulness (Shusterman 1997, 2008; Nehamas 1998). Contemporary theories of aesthetic experience offer a range of perspectives. Scruton (1974) describes it as the appropriate enjoyment of imagined aspects of an object. Walton (1993) defines aesthetic pleasure as involving both enjoyment of an object and of the recognition of its value. Levinson (1996) characterizes aesthetic experience as attention to an object's forms, meanings, and perceptual features for their own sake. Stecker (2006) presents a "minimal conception," in which aesthetic experience consists in focused, discriminating attention to certain features of an object, either for their own sake or for the sake of the experience

4.1 Aesthetic Attitude

In this section, I will build upon the literature on the aesthetic attitude and lay out a view of the aesthetic attitude that I think is relevant to critical thinking. Then, I will discuss the possible benefits of the aesthetic attitude for critical thinking.

4.1.2 Investigation of the Aesthetic Attitude

Aesthetic experience is a distinct mode of engagement in which a subject encounters an object not as something to be used, possessed, or enjoyed, but as something to be contemplated. This experience is marked by openness, receptivity, and a suspension of personal or instrumental concerns. Rather than reducing the object to a function or subordinating it to a desire, the subject allows the object to present itself on its own terms. As Mikel Dufrenne puts it, aesthetic experience discloses the object's aesthetic essence: its perceptual, affective, and expressive qualities, grasped through the unity of sense, feeling, imagination, and reflection. (Dufrenne, 1973, pp. 271).

Underlying this experience is what Dufrenne calls the aesthetic attitude (Dufrenne, 1973, pp. 426). This attitude is not one of consumption, control, or self-gratification, but of contemplative availability. Unlike the practical attitude, which aims to act upon or manipulate the object, or the attitude of enjoyment, which merges the object with personal desire, the aesthetic attitude maintains a respectful distance. The object is not absorbed or appropriated but allowed to assert itself. This attitude involves a kind of yielding, a readiness to be moved by the object on its own terms.

Dufrenne contrasts this with the attitude we take toward the agreeable or the useful. The agreeable, often associated with touch and bodily enjoyment, does not reveal the object as it is. Instead, the object is absorbed into the subject's experience and consumed for pleasure. As he writes, "As the fruit dissolves in being enjoyed," the object vanishes in the moment of gratification. (Dufrenne, 1973, pp. 427). Aesthetic experience resists this absorption. The object remains other, irreducible, and even sovereign, requiring a contemplative attitude that is attuned but not possessive.

The aesthetic attitude also differs from what Dufrenne considers to be our usual attitude toward truth. The pursuit of truth often involves effort, appropriation, and ownership. (Dufrenne, 1973, pp. 427). Truth is something we strive for, acquire, and retain. Dufrenne describes it as

"monetary in character," something to be stored, recalled, and exchanged. (Dufrenne, 1973, pp. 428). Aesthetic experience, in contrast, cannot be possessed in this way. It is tied to the presence of the object and cannot be retained or generalized without losing its singularity. One may remember having had an aesthetic experience, but the attitude itself vanishes with the absence of the object. Beauty resists abstraction and remains tied to the immediate and the irreplaceable.

Because of this, the aesthetic attitude requires the full involvement of the concrete, affective self, rather than the abstract or detached self often engaged in the pursuit of knowledge. (Dufrenne, 1973, pp. 428). While knowledge involves abstraction and objectivity, aesthetic experience deepens subjectivity. The aesthetic object affects the subject at a more personal level, evoking feelings that cannot be reduced to universal knowledge.

Although both aesthetic and epistemic attitudes involve discipline and refinement, their outcomes are different. Intellectual effort results in accumulated knowledge and conceptual expansion. Aesthetic effort, by contrast, enhances sensitivity and discernment. It makes the subject more attuned to the object, but also more selective and vulnerable. Aesthetic development is not a form of mastery or accumulation, but a cultivation of receptivity.

The aesthetic attitude encourages open-mindedness. Edward Bullough's idea of psychical distance captures this well. By suspending personal biases and making space for unfamiliar perspectives, we become more receptive to what the object or argument has to offer. (1912, p.1). This mirrors the kind of mental flexibility needed in critical thinking, where early judgments or strong commitments can block deeper understanding. Adopting an aesthetic stance encourages us to delay our conclusions, to sit with the unfamiliar, and to remain attentive to features that might otherwise be overlooked.

This connects to another important idea: suspending belief. In the context of argumentation, this aligns with the principle of charity, the effort to interpret an argument in its strongest and most coherent form. Jerome Stolnitz refers to this kind of engagement as disinterested perception, where attention is directed at the object for its own sake, free from personal investment or instrumental goals. (1978, pp. 413, 416). This suspension is not passive. It requires effort and discipline, and it can create the kind of mental space needed to fully consider unfamiliar or even challenging views.

In critical thinking, such openness helps us resist defensive reactions and supports intellectual humility. When encountering an argument, we often respond through the lens of our existing beliefs. The aesthetic attitude pushes us to step back and ask what is being presented and how

it should be perceived. These questions help shift us from reactive interpretation to reflective engagement. In doing so, we become more capable of understanding the argument in its fullest form.

This open stance leads naturally to the perception of depth. To be open is to allow for the possibility that the object or argument contains multiple layers of meaning. This depth may be found in the emotional or symbolic structure of a painting or in the subtle implications of a philosophical claim. In the next section, I will explore this idea of depth further, beginning with an example from Salvador Dalí:

Salvador Dali, 1937, Oil on Canvas, 51.2 cm × 78.1 cm (20.12 in × 30+¾ in), Tate Modern, London. Retrieved from: https://en.wikipedia.org/wiki/Metamorphosis_of_Narcissus

When we look at Salvador Dali's famous painting *Metamorphosis of Narcissus*, we are immediately presented with a number of distinct objects. The most prominent and easily recognizable figure is Narcissus himself, gazing at his reflection. Even at this level, there is a dual meaning. In one representation, Narcissus has a dying flower on his head, while in the other, the flower is blooming. This reflects the myth of Narcissus, who transforms into a flower after obsessively staring at his own image. The twofold meaning lies in the contrast: one figure

is associated with death, the other with new life. Another layer of meaning is that Narcissus is depicted as a stone figure, alluding to the moment in the myth when he turns to stone before becoming a flower. The stone symbolizes stillness or immobility, adding yet another dimension to the representation of Narcissus in the painting.

The painting contains many more layers of meaning, one of which is the presence of the chessboard in the background. This element, like others, invites multiple interpretations. One possible reading is that the chessboard represents calculation and reason, standing in contrast to Narcissus's emotional self-obsession. Another interpretation is that it signifies the passage of time. Perhaps Narcissus has been sitting and staring at himself for so long that even the natural landscape, mountains and rocks, has transformed into something structured and artificial, like a chessboard, which requires human effort and time to create. Rather than interpreting every symbol in the painting, the key point is that each element, no matter how minor, can carry layers of meaning. To access these layers, we need to adopt the aesthetic attitude, which involves suspending our beliefs and preconceptions. This openness allows us to immerse ourselves in the artwork and uncover deeper insights. The same principle can be applied to critical thinking. Just as a painting reveals multiple layers through careful attention, arguments also contain hidden assumptions, subtexts, and connections that become visible through reflective engagement. This layered approach is essential in critical thinking, where arguments are rarely linear. The ability to identify underlying assumptions, spot rhetorical techniques, and trace the relationship between evidence and reasoning is crucial.

Dufrenne's notion of heightened awareness (1973, pp.271) contributes here by emphasizing sensitivity to the environment and the object's context during an aesthetic experience. In critical thinking, this translates into an awareness of the argument's structure, premises, and implications. This can enable the thinker to focus on the formal elements of the argument, such as coherence and logical flow, without being distracted by external concerns. Heightened awareness goes beyond merely noticing the obvious features of an argument; it provides an appreciation for implicit details. For example, a well-crafted argument may contain implicit premises or rhetorical strategies that are not immediately apparent. Through the aesthetic attitude, one becomes more attuned to these intricacies, developing a deeper and more comprehensive understanding. Additionally, this sensitivity extends to recognizing the cultural and situational contexts in which arguments are embedded, which George Dickie highlighted as central for art making and understanding. In his words "In almost every actual society which has an institution of art-making, in addition to the roles of artist and public, there will be a

number of supplementary artworld roles.... the roles of artist and public in relation, however, constitutes the essential framework for art-making." (2004, pp.51).

By perceiving arguments as aesthetic objects, imagination becomes an active force, much like in aesthetic experiences. This approach invites a holistic engagement with the argument, integrating emotions, feelings, and intellectual inquiry. John Dewey's (1934/2005) emphasis on integrating aesthetics into everyday life supports this view. For Dewey, aesthetic experience is just another form of experience that has similarities and differences to other experiences. From that perspective, he thinks that all experiences can be continuous with each other and 'blend into each other'. (1934/2005 pp.43). This can suggest that arguments, like artworks, can be approached with active and engaged participation rather than passive detachment. When arguments are approached aesthetically, they cease to be mere logical structures and become dynamic entities. This invites the thinker to explore their emotional resonance and imaginative potential. For instance, a moral argument might be enriched by imagining the lived experiences it addresses, thereby deepening the thinker's empathy and engagement. This transformation provides a richer interaction with the argument. This encourages imaginative reconstruction of its premises and implications while also enabling emotional connections that enhance understanding.

It is important to note here that some experiences containing an aesthetic element do not fully align with the aesthetic attitude. For example, if one encounters an electric car primarily as an environmentally beneficial object rather than a beautiful one, the car is not being perceived as an aesthetic object. Similarly, the experience of someone in love might include many elements of aesthetic experience, but if the response is focused on features beyond their appearance, it may not, or may only partially, be an aesthetic experience. The aesthetic attitude, therefore, is contingent on what aspects of the object are being engaged with and how we choose to perceive them.

Approaching an artwork is tricky. It is tricky because it does not have any specific rules to follow, and it depends on how you feel that specific day or moment. You cannot necessarily come up with procedures for how to approach an artwork. Since our aim with critical thinking is to understand and evaluate an argument, let's think about approaching it with those aims. Let's say understanding is the first mission and evaluating is the second. To gain a good understanding of an artwork, we should let ourselves to be absorbed by the artwork. This is an analogy that refers to being actively and closely and imaginatively perceiving an artwork;

trying to make sense of what is presented; taking in every bit, colour and detail; trying to see the whole in the parts and parts in the whole. This active struggle to make the artwork meaningful for ourselves is a genuine act of understanding. It is known that arguments sometimes can be messy, long and confusing. Having the aesthetic attitude in this sense could help us to develop a better understanding of such arguments that we might face.

4.1.3 Possible Benefits of the Aesthetic Attitude for Critical Thinking

In this section, I will present possible advantages of having an aesthetic attitude in critical thinking. They are suspension of belief and biases, exploration of depth, appreciation of complexity, enhancing open-mindedness.

The aesthetic attitude encourages the suspension of judgment, which allows critical thinkers to approach arguments with an open mind. This non-dogmatic approach helps in fully grasping the essence of the argument without being clouded by preconceptions. By putting aside biases, one can more accurately perceive the different layers of meaning within an argument, similar to how one would approach a complex work of art. For example, when taking an aesthetic attitude towards a controversial political issue, a person would temporarily set aside their partisan beliefs to better understand the different perspectives involved. This can lead to a more detailed and fair assessment of the issue.

The aesthetic attitude encourages the exploration of depth. Just as an aesthetic experience involves delving into the multiple layers of a work of art, critical thinking benefits from exploring the various dimensions of an argument. This exploration requires not just intellectual rigor but also emotional and imaginative engagement, that can lead to a more comprehensive understanding. For instance, consider the debate on climate change. A critical thinker using an aesthetic approach would explore the scientific data, the emotional impact of environmental changes on communities, and the ethical implications of policy decisions. This comprehensive exploration ensures a richer understanding of the issue, much like how one might uncover the details of a complex painting.

The aesthetic attitude encourages the appreciation of complexity. Viewing arguments as aesthetic objects allows critical thinkers to appreciate their complexities and underlying assumptions. This perspective encourages a more thorough analysis, considering the argument's structure, implications, and the worldview it presents. Such an approach provides an appreciation for the subtleties and intricacies involved in critical reasoning. For example, in

literary criticism, a scholar might analyse a novel not just for its plot but for its thematic depth, character development, and stylistic choices. Similarly, treating a philosophical argument as an aesthetic object means examining its premises, logical coherence, and the broader philosophical implications it carries.

The aesthetic attitude enhances open-mindedness. The aesthetic attitude promotes a willingness to be absorbed by the subject, facilitating a more immersive and empathetic engagement. This can be particularly useful in understanding and evaluating complex or unfamiliar arguments, where initial resistance or misunderstanding might occur. For example, when studying a foreign culture's traditions and beliefs, an open-minded approach allows one to appreciate the values without immediate judgment. This immersive engagement helps in developing a more empathetic and informed perspective, just as deeply experiencing a piece of music or a work of art can lead to a better emotional and intellectual connection.

While my primary concern here is with the aesthetic attitude, understood as a particular way of approaching or attending to an object with a focus on contemplation rather than practical use, it is important to acknowledge its close connection to aesthetic experience. The aesthetic attitude shapes the manner in which we direct our attention and prepares the ground for what can develop into a rich and immersive experience. Although these are distinct concepts, with the aesthetic attitude referring to the mode of attention and aesthetic experience referring to the quality of what is undergone during engagement, they are not entirely separate in practice. Adopting an aesthetic attitude often makes possible a certain kind of experience that involves heightened awareness, absorption, and a deepened sense of presence.

In some parts of this discussion, for example when describing immersive engagement, the focus may appear to shift from the aesthetic attitude to aesthetic experience. Immersion and similar phenomena are best understood as features of aesthetic experience, but they typically arise as a result of sustaining an aesthetic attitude. The aesthetic attitude and aesthetic experience are closely connected. The aesthetic attitude provides the framework that allows aesthetic experience to unfold. The aesthetic attitude shapes our encounters with objects of aesthetic attention.

In the next section, I will discuss the concept of imagination, mainly in aesthetic experience. Then, I will discuss the possible advantages of imagination in critical thinking.

4.2 Imagination

Imagination is a faculty that helps us make sense of fragmented perceptions by creating coherence and enabling understanding through representation. It allows us to interpret the world beyond how things actually, presently, and subjectively appear (Shen-yi and Gendler, 2020, pp. 1). In this sense, imagination supports both understanding and creation. Given its complexity, imagination has been approached from various theoretical perspectives. In this section, I focus on imagination in aesthetic experience, drawing on the work of Dufrenne and other relevant literature. I turn to Dufrenne because his account offers valuable insights into imagination which can readily be applied to critical thinking. As he states, "At the threshold of representation we must posit imagination as the root of space and time, which form the a priori structure of all acts of appearing." (Dufrenne, 1973, p. 352). Finally, I will explore the potential benefits of imagination for critical thinking.

4.2.1 Investigation of Imagination in Aesthetic Experience

Michael Dufrenne explains that aesthetic perception arises through a transformation of ordinary experience, which he describes in three stages: presence, representation and imagination, and finally, reflection and feeling. (1973, pp. 349). Imagination is not simply an aid in this process; it is what allows perception to shift from mere sensory awareness to something aesthetically meaningful. As Dufrenne puts it, imagination transforms "brute sensuousness into aesthetic sensuousness". (pp. 138). This transformation connects with the earlier discussion of the aesthetic attitude. To take up such an attitude is to change how we relate to what we perceive, not by altering the object itself, but by changing the way we experience it. Marcel Duchamp's *Fountain* (1917) provides a helpful example. What would usually be seen as a urinal is perceived, instead, as a work of art. This shift does not come from the object undergoing any physical change, but from a different mode of perception shaped by imagination. In the following section, I will examine this process in more detail by returning to Dufrenne's stages and then considering how the movement from everyday to aesthetic perception can inform our approach to critical thinking.

In the first stage of aesthetic perception, Dufrenne describes experience as global and pre-reflective. At this level, perception involves a direct engagement between the body and the surrounding sensuous world. The encounter is immediate and unfiltered, shaped by the force of sensory presence before imagination or interpretation comes into play. According to Dufrenne, this presence is not just about detecting an object in front of us. It also involves sensing our own bodily relation to that object, along with the wider field of presences that surround us. (1973, pp. 322). It can be argued that this kind of awareness is pre-reflective because it occurs before meaning is assigned or any transformation has taken place. A parallel can be drawn here with the first moment of encountering an argument. You might see it on a page or hear it in conversation, but at that initial moment, you have not yet thought about it or judged it. You are simply aware that it is there. A similar case arises in art. When you first look at a painting, you take it in as a whole. You have not analysed or interpreted it, but the painting is present to you in a direct and immediate way. This stage also appears in everyday life. Imagine walking through a crowded city during rush hour. There are people, cars, sounds, and movement all around you, but you do not process every detail. Much of it remains at this initial level of perception, which helps prevent overload.

In the second stage of perception, sensory input is objectified and shaped into recognizable entities through the operation of imagination. This account of perception applies generally, not only to aesthetic experience. Imagination plays a crucial role in forming a spatiotemporal field in which objects can appear and be recognized as meaningful. However, when it comes to aesthetic experience, Dufrenne emphasizes an important difference. He argues that in genuine aesthetic experience, the artwork itself is so fully articulated that it does not require additional imaginative elaboration from the spectator. (Dufrenne, 1973, pp. 366). The work of art, he writes, "spares us the expense of an exuberant imagination" because it has already been deeply shaped and transformed by the artist. (1973, pp.366). The imaginative effort that is normally needed to construct objects from raw sensory input is, in this case, largely provided by the work itself. This does not mean that imagination plays no role in aesthetic experience. As artworks become more imaginative or complex, they can invite and even require the spectator to engage imaginatively in order to interpret and understand them. Thus, while Dufrenne’s point highlights a key difference between ordinary perception and aesthetic experience, it also allows room for degrees of imaginative involvement, depending on the nature of the artwork.

In the final stage of aesthetic experience, imagination continues to play a central role, but it does not work in isolation. It requires direction, and this is where feeling becomes essential. Feeling helps imagination focus on what matters most in the process of understanding, guiding attention toward aspects of the artwork that carry expressive or emotional significance. According to Dufrenne, this stage involves a form of reflection that may lead to intellectual insight, but more importantly, it can lead to a personal engagement shaped by feeling. (1973, pp. 393). This is what he calls *sympathetic reflection*, a process in which the spectator's emotions engage with the emotional world conveyed by the artwork. Rather than remaining on the surface, perception becomes aesthetic when it is deepened by this emotional resonance.

As discussed earlier, imagination is a transformative faculty. It enables the shift from ordinary perception to aesthetic experience by drawing on what Dufrenne refers to as our depth—that is, the reservoir of our emotions, memories, thoughts, experiences, and knowledge. For a perception to become aesthetic, imagination must tap into this depth and bring it to bear on what is perceived. This process allows something familiar to be re-experienced in a new, enriched way. The same process can be seen in the creation of art itself. Artworks often emerge from this transformation of the everyday. What gives artistic form its expressive power is not merely the use of colour, line, or sound, but the depth of the artist that shapes how these elements are arranged. Imagination does not generate that depth on its own, but it enables the artist to bring that inner world into the artwork.

It can be argued that there are two types of depth in a work of art. The first concerns the spectator, whose response is shaped by their own emotions, memories, and lived experience. The second belongs to the artwork itself, which carries expressive content drawn from the artist's own imaginative and emotional life. It can be argued that these two depths meet in aesthetic experience. The spectator does not merely receive the artwork passively but brings something of themselves to the encounter. When this happens, understanding takes on a different character. It is not just a matter of grasping meaning but of feeling one's way into the world the artwork expresses. This kind of understanding is not necessarily more complex or analytical, but it is more engaged. It depends on the strength of the connection between the spectator's inner world and what the artwork expresses.

At times, aesthetic experience can stretch the imagination by confronting it with abstraction or distortion, as seen in Picasso's *Guernica*. Such challenges do not diminish the experience; rather, they make it more active and demanding. By placing limits on how easily imagination can operate, the work invites a slower, more attentive response. As a result, the more complex

or ambiguous an artwork becomes, the more effort it requires from the viewer to engage with it. Likewise, the more inventive the creative act, the more it draws upon the artist's imagination and inner resources to shape perception into something aesthetically meaningful.

To illustrate this idea, I draw on Dufrenne's concept of *affective quality* from *The Phenomenology of Aesthetic Experience* (1973), where imagination shapes the felt presence of an object, such as when a poet evokes the sea (pp. 143). In such cases, the sea is experienced not materially or conceptually, but affectively. A clear example of this can be found in a poem by William Wordsworth. The poem is called *I Wandered Lonely as a Cloud*

I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host, of golden daffodils;
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze. (Wordsworth, 1807/2023).

In the first sentence of the poem, Wordsworth describes a scene where he encounters a field of daffodils. His use of vivid imagery, such as "a host, of golden daffodils" and "fluttering and dancing in the breeze", goes beyond a mere visual description. This imagery triggers our imagination, that creates a lively and joyful presence that affects the reader emotionally. By personifying the daffodils as "dancing," Wordsworth invites us to perceive these flowers as living, joyful entities, providing an emotional connection rather than viewing them as mere objects in nature. Through this affective quality, the daffodils evoke a sense of joy and peace within us, allowing them to share in the emotional uplift that he felt. This experience transcends a material understanding of the scene. Instead of just recognizing the presence of flowers by the lake, the reader feels the beauty and emotional resonance that Wordsworth conveys. The "host of golden daffodils" becomes a felt presence that invokes awe and delight that is deeply personal and emotional. This offers a deeper understanding for us. Deeper in the sense of touching stimulating or connecting with our feelings and emotions. Furthermore, the poem facilitates an aesthetic experience that surpasses conceptual understanding. It's not about knowing that there are daffodils but about feeling the lightness and happiness they bring. Wordsworth's depiction creates an inter-subjective connection, allowing us to share in his

emotional response to the daffodils. This shared affective quality enriches our own experience of the scene that achieves what Dufrenne describes as affective quality. Thus, we are invited to experience the daffodils affectively that generates better emotional and aesthetic connection with the natural world.

Imagination can be understood as a central pathway to understanding. It serves as a connective process that brings together different elements of the mind, such as reason, emotion, memory, and perception. Rather than operating in isolation, imagination moves through the mind's complexity with a sense of direction, drawing on what is needed to make sense of what we encounter. It helps us access the appropriate emotions and recall relevant ideas or experiences in response to what is perceived. This activity involves two closely related functions: understanding and transformation. Though these may seem distinct, both rely on the same capacity of imagination to bring various elements together into a coherent experience.

This can be illustrated using the idea of connecting dots. Some of these dots come from within, such as memories, past experiences, thoughts, and knowledge. Others come from outside, including shapes, colours, images, or symbolic forms encountered in the world. Imagination allows us to bring these elements into relation, enabling us to interpret and understand what we perceive. Without this capacity, perception might remain fragmented or confusing. Consider Picasso's *Guernica*. At first glance, its distorted and fragmented forms may appear disordered. But through imagination, the viewer begins to relate these elements to historical context, emotional response, and personal reflection. Through this process, the meaning of the artwork begins to emerge.

Pablo Picasso, 1937, Oil on Canvas, 349.3 cm × 776.6 cm (137.4 in × 305.5 in), Museo Reina Sofia, Madrid. Retrieved from: https://en.wikipedia.org/wiki/Guernica_(Picasso)

This painting is called *Guernica*. It is generally interpreted as a representation of the horror and chaos of war. Without knowing anything about the painting, not even its name, we can first look at it in the pre-reflective stage. Without processing it, we can simply become aware of it at the level of presence. To understand the complexity of the icons used in the painting, we need to connect the dots. There are two types of dots here: (1) the dots we already have in mind, such as experiences, knowledge, and memories, and (2) the dots we get from the painting in the form of icons, colours, and their interconnection. Through imagination, we connect all these dots, which results in an interpretation and understanding of the painting. Without imagination, we would be lost in the painting and unable to figure out what it tries to convey. On the right-hand side there is face of a man that looks like he is screaming with his hands are in the air. This is the dots we get from the painting. Then, we look at the dots we have: what does screaming mean? What do hands in the air mean? We have answers in our mind for these, and we find the appropriate ones to connect all together to come to an understanding. This process also reflects Peter Goldie's concept of narrative imagination, which enables us to engage with both cognitive and emotional dimensions to make sense of fragmented experiences and construct a coherent narrative. (Goldie, 2012, pp.77). The dots that are joining both from inside and outside require a coherent narrative to make a meaningful interpretation.

Imagination, in this sense, becomes the mechanism that connects the dots we receive from the external world with those stored internally, generating a creative synthesis of meaning. Imagination also plays a crucial role in maintaining the necessary distance and detachment in the aesthetic experience. It allows the spectator to engage with the work of art without being wholly absorbed or entirely detached. This balance is essential for genuine aesthetic appreciation because, in that balance, we can fully use both our knowledge and what we get from the artwork. It is important to balance the usage of both external and internal dots, not being constraint to any one of them. Being confined to dots would hamper the understanding of the object. Now let me elaborate on the two different functions of imagination: understanding and transforming.

4.2.2.1 Understanding

As discussed earlier, imagination plays an essential role in helping us make sense of fragmented or complex representations. This capacity to bring together separate elements into a meaningful whole connects with what Goldie (2012, pp. 77) refers to as narrative imagination. According to him, the stories we form around what we see and what we already know are constructed through imaginative activity. These narratives shape how we understand new experiences. When we encounter something unfamiliar, the imagination works by placing it within the network of what we already know. For example, if I see a four-legged animal I have never seen before, I might compare it with animals I am already familiar with, such as dogs, and conclude that it is either a kind of dog or something related. In this case, imagination helps us relate the new to the familiar.

When we face more complex or ambiguous situations, simple comparisons are not enough. Here, imagination must work in more inventive ways to create meaning. Kendall Walton (2005, pp. 49) argues that imagination allows us to take part in meaning-making by encouraging us to move beyond literal understanding, especially through the use of metaphor. For instance, if I observe a cat sitting on a windowsill, watching the street below, and interpret its meows as if it were making comments, I am not making a factual claim. Instead, I am engaging in an imaginative interpretation that combines perception with internal concepts in a creative way.

Returning to *Guernica*, this process becomes more layered. At first, we might simply notice its presence. But to grasp its emotional weight and symbolic content, we must rely on imagination to connect its visual elements—such as forms, colours, and figures—with our knowledge,

memories, and emotional responses. In doing so, we come to understand the painting not just as an arrangement of shapes but as a depiction of chaos, violence, and suffering. This understanding emerges from the interaction between what we see and what we bring to that act of seeing.

This process of understanding can also be linked to Elisabeth Camp's concept of perspectival imagination. Camp argues that imagination enables us to adopt different perspectives that allows us to organize our thoughts and responses in new ways. (2017). By imaginatively stepping into another point of view, we are not just observing from the outside but engaging in a way that can reshape how we think, feel, and evaluate. Here, perspectives act as frameworks that influence both cognition and emotion. When we imaginatively take on such a perspective, even temporarily, it can leave lasting impressions on how we understand the world. A literary example makes this idea more concrete. In reading *To Kill a Mockingbird*, for instance, we may come to see the events of the novel through the eyes of Scout, a child witnessing racial injustice in the American South. This imaginative act allows the reader not only to follow the plot but to experience the world as Scout does, shaped by her moral outlook and emotional responses. Such engagement goes beyond sympathy or detached understanding. It involves reorganizing one's thoughts and feelings from within the character's point of view. In this way, Camp's perspectival imagination shows how imaginative effort can deepen both comprehension and emotional insight.

4.2.2.2 Transforming

Imagination transforms ordinary perception into aesthetic experience by drawing on our emotions, thoughts, memories, and knowledge. This inner depth enables us to see more than what is physically present. Take, for example, Vincent van Gogh's *The Starry Night*. Rather than offering a literal depiction of the night sky, van Gogh used imagination to express his inner emotional and psychological world. A familiar scene becomes charged with personal meaning, turning it into something aesthetically powerful. This kind of transformation is not limited to the arts. It can occur in everyday life as well. Imagine watching a sunset over a hill. While the scene itself is a natural event, imagination allows us to experience it as something beautiful or meaningful by drawing on what we feel, remember, or think. It is through imagination that such moments become more than visual impressions—they become experiences.

Imagination's transformative role also involves challenging our understanding. When we encounter complex artworks like Picasso's *Guernica*, we are often presented with distortions and abstractions that do not offer immediate clarity. In these cases, imagination must work within limits and uncertainties, which encourages us to engage more attentively. As we try to make sense of what we see, we bring in our own depth to complete what is left open. This process does not simply reveal meaning but creates it through our imaginative response. In this way, perception becomes aesthetic not through the object alone, but through how imagination reshapes the experience.

It should also be noted that imagination, by connecting external dots with internal ones, necessitates the full engagement of all mental faculties. This dynamic interaction activates emotions and feelings, which are important for understanding. In that way, imagination enables a holistic process of thinking and interpreting that includes emotions and feelings. This supports the transforming function of imagination since transformation feeds from our emotions, memories, knowledge and feelings.

In summary, imagination serves as both a method of understanding and a transformative force. Whether connecting fragmented representations into coherent wholes or enriching ordinary perceptions with depth. Now, let me elaborate on how imagination can be beneficial for critical thinking.

4.2.2 Possible Benefits of Imagination for Critical Thinking

In this section I will present possible advantages of using imagination in critical thinking. These are respectively creating coherence, facilitating understanding, full engagement, enhancing reflective and sympathetic thinking.

The first one is creating coherence. Imagination plays a crucial role in making sense of fragmented representations, allowing critical thinkers to create coherent interpretations of complex issues. This ability to synthesize disparate elements into a meaningful whole is essential for robust analysis and evaluation. For example, consider the task of analysing

historical events such as the causes of World War I. A critical thinker uses imagination to connect various political, economic, and social factors, creating a cohesive narrative that explains how these elements interacted to lead to the war. This synthesis helps in understanding the complexity of historical causation that provides a more comprehensive and coherent interpretation of the events.

The second one is facilitating understanding. Imagination aids in connecting the dots between existing knowledge and new information. In critical thinking, this involves using imagination to bridge gaps in understanding, generate hypotheses, and explore potential implications of various arguments. For instance, a scientist researching a new disease might use imagination to hypothesize how the disease spreads by drawing on existing knowledge of similar diseases and integrating new data from recent outbreaks. This imaginative process can lead to the formulation of new theories and the identification of potential treatment strategies.

The third component is full engagement. Imagination helps critical thinkers maintain a balanced stance, avoiding both complete absorption in the subject and total detachment from it. This balance involves drawing on both external reference points, such as facts and shared frameworks, and internal reference points, such as intuitions and personal experiences. The "dots" metaphor refers to these sources of orientation in thought. Relying solely on either internal or external dots limits perspective and hinders understanding. Full engagement requires the ability to move between these points without being restricted by any single one. This balanced engagement ensures a more objective and comprehensive analysis while still allowing for empathetic and creative insights. For example, a judge in a court of law must engage with the facts and emotions of a case while maintaining enough distance to ensure impartiality. Imagination helps the judge empathize with the parties involved and understand their perspectives, yet also critically evaluate the evidence and apply the law objectively. This balance is crucial for fair and thorough judgement.

The last one is enhancing reflective and sympathetic thinking. Imagination, in conjunction with feelings, enables sympathetic reflection because it connects feelings with perception and

thoughts. (Dufrenne 1973, pp.393). This type of reflection, where the thinker's emotions and thoughts deeply resonate with the subject, leads to a better and empathetic understanding. In critical thinking, this enhances both the depth of analysis and the ability to connect with the subject matter on a more personal level. For example, a social worker helping a trauma survivor might use imagination to deeply understand the survivor's experiences and emotions. This sympathetic reflection allows the social worker to offer more effective and compassionate support.

This last benefit brings us to the next section where I will present a discussion of emotions and feelings in aesthetic experience and then offer possible benefits of them for critical thinking.

4.3 Emotions and Feelings in Aesthetic Experience

In this section I will investigate emotions and feelings in aesthetic experience, building upon Dufrenne and other relevant literature. Lastly, I will discuss possible benefits of emotions and feelings for critical thinking.

Emotion and feeling, though often used interchangeably, have been defined and distinguished in various ways across philosophical and psychological traditions. In this chapter, I follow the distinction offered by Dufrenne (1973) within the specific context of aesthetic experience. For Dufrenne, emotions are immediate, reactive responses to particular situations. They are often intense and short-lived, typically triggered by external stimuli. (pp. 430). These emotional responses are tied to specific circumstances and can be seen as the body's way of engaging with what is happening in or around us. For instance, when watching a horror movie, a sudden jump scare might provoke fear. This emotion is a direct reaction to the perceived threat on screen, producing physiological responses such as a racing heart or goosebumps. Similarly, seeing a friend after a long absence might evoke joy, an emotion that arises from the reunion and produces feelings of happiness and contentment. In Dufrenne's view, such emotional reactions function at a surface level, offering immediate but often transient responses to particular events or objects.

By contrast, feelings in Dufrenne's account are more enduring and reflective. They are not simply reactions but modes of being that involve sustained engagement with the world. He describes feelings as a form of knowledge that connects the subject to the object in a more

profound and contemplative way. (pp. 136). For example, listening to a Chopin nocturne may evoke a feeling of melancholy that is not reducible to a specific emotional reaction. Instead, it becomes a reflective state through which one explores deeper aspects of sadness, memory, or introspection. Likewise, standing before a Monet painting may elicit a feeling of tranquillity and beauty, a state that involves a lasting openness to the artwork's expressive qualities and a richer engagement with its meaning. In this phenomenological framework, feelings are essential to aesthetic experience. They allow for a sustained and meaningful relationship with artworks and the world, surpassing the fleeting nature of emotion and enabling a deeper form of understanding. However, it is important to note that Dufrenne's distinction does not align with standard usage in contemporary emotion theory. In much of the philosophical and psychological literature, feelings are treated as one component of emotions, particularly the phenomenological or experiential aspect. (Russell, 2003; Barrett, 2006; Prinz, 2004). Emotions are often defined as complex episodes that include appraisals, bodily changes, expressive behaviour, motivation, attention shifts, and subjective feelings (Scarantino, 2016; Wilson-Mendenhall et al., 2011).

Three dominant traditions shape the theoretical landscape: the Feeling Tradition, which identifies emotions primarily through their felt quality (James, 1884/2007; Goldie, 2000); the Evaluative Tradition, which understands emotions as evaluations or appraisals (De Sousa, 1987; Döring, 2003); and the Motivational Tradition, which emphasizes the action-guiding force of emotions (Scarantino, 2016). More recently, hybrid theories have emerged, such as those that treat emotions as evaluative perceptions (Tappolet, 2016; Roberts, 2003) or evaluative feelings with intentional content. (Goldie, 2002; Helm, 2009). Other models frame emotions as mechanisms for managing salience and directing cognitive focus based on learned "paradigm scenarios". (De Sousa, 1987; Goldie, 2012).

Given this broad and diverse landscape, my use of the emotion–feeling distinction should be understood within the specific context of Dufrenne's phenomenological aesthetics. While this distinction is useful for understanding how affective experience functions in aesthetic engagement, it does not play a decisive role in the broader argument of this chapter. Whether we speak of emotions or feelings, both contribute meaningfully to how we engage reflectively and creatively with ideas. Thus, although I acknowledge the conceptual difference between the terms, for the purposes of linking affective states to critical thinking, the distinction is not central to my claims.

4.3.1 Investigation of Emotions and Feelings

When approached from a phenomenological perspective, aesthetic experience reveals a complex relationship between feeling and understanding. According to Dufrenne, feelings are not just internal reactions. They respond to the perceived depth of the object, which in turn resonates with the inner depth of the spectator. (1973, pp. 438). This depth includes emotions, memories, and personal history. At the same time, the aesthetic object expresses its own depth through its emotional or expressive qualities. During aesthetic experience, these two dimensions come into contact. As Dufrenne puts it, "The human aspect of myself encounters the human elements in the object". (pp. 438). This encounter forms the emotional and transformative character of aesthetic experience.

Such engagement requires the spectator to take on a reflective and open attitude. It involves moving beyond surface-level interpretation and allowing the object to present itself on its own terms. When this openness is achieved, attention shifts from technical analysis to emotional involvement. Feeling becomes central to the experience. Rather than concentrating on structure or detail, the spectator senses a deeper meaning within the work. This is not a rejection of thought but a fuller integration of emotion and understanding. Take, for instance, Edvard Munch's *The Scream*. At first, the viewer may notice the bold colours and the contorted figure. But a deeper engagement begins when the viewer allows the painting's emotional force to affect them. Feelings of anxiety or despair may arise and echo with personal experiences. The artwork no longer stands apart. It becomes something the viewer relates to, emotionally and reflectively. This kind of experience has value beyond art. It models a way of engaging with ideas, texts, and arguments. Rather than approaching them with detachment or rigid assumptions, one may engage with openness, care, and emotional awareness. This kind of attention can lead to a more thoughtful and responsive form of critical thinking.

With this in mind, I now turn to *The Starry Night* by Vincent van Gogh to explore how emotional engagement can deepen our understanding and interpretation in a critical thinking context.

Vincent Van Gogh, 1889, Oil on Canvas, 73.7 cm × 92.1 cm (29.01 in × 36.26 in), Museum of Modern Art, New York. Retrieved from: https://en.wikipedia.org/wiki/The_Starry_Night

Imagine standing before *The Starry Night* in a museum. Your first response might be a feeling of awe at the swirling sky and vibrant colours. This immediate emotional reaction reflects what Sabine Döring describes in her non-cognitivist theory of emotions. She argues that emotions can convey information without requiring conscious or reflective thought. (2010, pp. 294). They offer an initial contact with the world that is spontaneous and non-inferential. This pre-reflective experience is central to the power of aesthetic perception, where we are affected before we begin to analyse.

However, to fully engage with *The Starry Night*, one must go beyond the initial reaction and enter a more reflective emotional state. As you spend time with the painting, the contrast between the quiet village and the swirling sky may evoke feelings of solitude, melancholy, or existential reflection. This deeper engagement draws on what Anthony Hatzimoysis describes as the emotional transformation of perception. Drawing from Sartre, he calls this change "magical" because it alters how reality appears to us through emotional experience. What is

transformed is not the object but the way we respond to it and the meaning we assign to it. (2010, pp. 232). Emotions, in this view, are not passive responses but active elements of interpretation. This is further supported by Dufrenne's concept of sympathetic reflection, in which the emotional depth of the artwork and the emotional world of the viewer enter into a reciprocal relationship. (1973, pp. 393). In the case of *The Starry Night*, this could mean sharing in van Gogh's emotional world, sensing the turbulence and intensity behind the image as if it were partly your own. The painting does not simply express emotion; it invites you to feel it with the artist.

Peter Goldie adds another layer by framing emotions as part of the narrative structure of our lives. According to Goldie, emotions are not isolated events but are embedded in the broader stories we tell about ourselves. (2000, pp. 4–5). An artwork can become part of that story. As you reflect on *The Starry Night*, you might remember moments when your own life felt similarly divided between peace and chaos. The painting resonates with those experiences and becomes part of your ongoing self-understanding. This emotional and narrative involvement is not limited to the aesthetic realm. In the next section, I will explore how such reflective and emotionally engaged attention can be applied to critical thinking, helping us understand arguments not only through logic but through their emotional and existential significance.

Moreover, engaging with *Starry Night* through sympathetic reflection demonstrates how emotions can inspire creativity and critical thinking. The emotions elicited by the painting may prompt you to explore its themes and meanings further. For instance, you might wonder about Van Gogh's own emotional state while painting *Starry Night.* Was he capturing a sense of hope amidst despair, or was the turbulent sky a reflection of inner turmoil? These reflections can lead to imaginative interpretations and connections that enrich your understanding of the artwork and its context.

This dynamic interplay of emotions also illustrates their role in enabling a holistic approach to critical thinking. As we saw above examples, emotions are not isolated from reason or imagination; instead, they work in harmony to create a comprehensive engagement with the object. When you allow yourself to feel the emotional power of *Starry Night,* you activate not only your emotional faculties but also your imaginative and rational capacities that creates a richer, multidimensional understanding of the painting. By integrating emotions into our interactions with art, we not only enhance our aesthetic experiences but also expand our capacity for creativity and critical thinking.

4.3.2 Possible Benefits of Emotions, Feelings and Sympathetic Reflection for Critical Thinking

Emotions, feelings, and sympathetic reflection, as explored through the lens of aesthetic experience, offer benefits for critical thinking and argumentation. Emotions drive deeper engagement with the subject matter, similar to how they enhance our connection to art. For instance, when debating a controversial topic like climate change, emotional engagement can make individuals more invested in understanding and addressing the issue, leading to a more passionate and thorough exploration of ideas. Moreover, suspending biases, akin to adopting an aesthetic attitude, allows critical thinkers to genuinely explore different perspectives. This openness enables a more comprehensive and unbiased understanding of the issues at hand, such as when discussing political ideologies or social justice issues.

Emotions provide a better and enduring state of engagement that surpasses immediate emotional reactions. In critical thinking, this depth encourages individuals to reflect deeply on issues, uncovering underlying assumptions and implications. For example, when analysing a complex ethical dilemma like euthanasia, feelings of empathy and compassion can help uncover deeper moral and philosophical considerations, leading to well-rounded arguments. Emotions connect the subject with the object in meaningful ways that reveals inner meanings. This connection can translate into a deeper understanding of arguments and counterarguments that facilitates the discovery of novel insights and perspectives that might not be apparent through surface-level analysis. Let’s have a look at this dialogue to see how emotions might help us in critical thinking:

Aaron: Hey Furkan, what do you think about euthanasia? I think it's wrong. It's basically playing God.

Furkan: I get where you're coming from. It does feel like a heavy decision. But when I think about the people suffering from unbearable pain, I feel a deep empathy. It's hard to ignore their need for relief.

Aaron: But doesn’t that open the door to all kinds of abuse? People might feel pressured into it.

Furkan: That’s a valid concern, and it worries me too. My compassion for those vulnerable people makes me think we need strict safeguards. But at the same time, I can’t help but feel that denying someone the choice to end their suffering is also a form of cruelty.

Aaron: Still, life is precious. We should focus on improving care, not ending lives.

Furkan: Absolutely, improving care is crucial. My feelings of compassion push me to support better palliative care options. But for some, no amount of care can ease their pain. Feeling their despair makes me believe they should have a choice, but only with proper protections in place.

Aaron: So, you're saying you support it, but with lots of rules?

Furkan: Yeah, exactly. My empathy for those in pain and my concern for potential abuse make me think we need a balanced approach. It’s not an easy answer, but feelings can guide us to a more humane and careful solution.

Here, Furkan argues that emotions can help us discover different dimensions of the topic being discussed. These elements can enhance our understanding and aid in formulating a better response. It happens when the thinker’s feelings mirror the emotional features of the situation, supporting a deeper understanding.

Empathy and perspective-taking are crucial in critical thinking, much like in sympathetic reflection with art. Engaging empathetically with others' arguments allows individuals to better understand different viewpoints, appreciating the emotional and contextual factors that shape these perspectives. For instance, in a debate on immigration policy, empathetically considering the experiences of immigrants can lead to a more compassionate and comprehensive evaluation of arguments.

The transition from thinking to feeling in aesthetic experiences parallels the move from rigid, conventional thinking to creative approaches in critical thinking. Embracing feelings allows for spontaneous insights that encourage novel ways of thinking. For example, when tackling a scientific problem, allowing for creative intuition can lead to breakthroughs and creative solutions that pure analytical thinking might miss. The passionate and faithful attention given to an artwork through sympathetic reflection can similarly be applied to problem-solving and critical thinking, providing creativity. Engaging deeply with a problem and allowing oneself to feel its implications can lead to creative outcomes.

For example, Dr. Michelle Khine started a lab 15 years ago, but it was not outfitted with the required specialised equipment she needed to complete her experiments. After she tried all the known routes, she had to find something new using equipment no one had thought of yet. She remembered a toy she played with when she was a child, a Shrinky Dink, that had the materials to shrink the sheets into hard plates without altering their shape. So, she used the same idea and materials in her lab to be able to work on microscopic scales without having the required

equipment. This creative leap made the continuation of her studies possible. When we consider her thinking process, to remember the toy, she may reach for the feelings felt when she was a child and recall the idea with the help of her childhood feelings. Other than that, she does not distinguish herself *as a scientist* from herself *as a child*. She uses an idea behind a toy that she had as a child to her work in science. In other words, she uses her feelings to advance her research. This does not mean that she only uses her feelings. She uses both reasoning and feelings in a balanced manner.

Experiencing feelings in their pure, mediated immediacy allows for a holistic understanding of the subject. In critical thinking, this holistic approach integrates emotional, intuitive, and rational elements, leading to a more comprehensive and balanced perspective. Just as sympathetic reflection can transform one's perception of art, it can also transform one's understanding of complex issues. For instance, reflecting on historical events with a sense of empathy and emotional engagement can provide a better understanding of their impact and significance. This transformation involves integrating new insights and perspectives into one's worldview that may enhance the overall quality of argumentation and critical analysis.

I acknowledge here that emotions can be also a source of bias through immediate emotional connection to a topic or a person. That is the reason why emotions should reciprocally work with reason to bring about better thinking.

Conclusion

In this chapter, I have explored the roles of the aesthetic attitude, imagination, emotions, and feelings in the context of critical thinking. I have argued that contrary to dominant assumptions in the critical thinking literature discussed in Chapter 1, these faculties can play a valuable and constructive role in enhancing critical thought.

I began by examining the concept of the aesthetic attitude, outlining its treatment in the relevant literature before considering how it might apply within the domain of critical thinking. I then discussed how adopting an aesthetic attitude could enrich our evaluative practices by encouraging openness, attentiveness, and a sensitivity to nuance.

Next, I turned to imagination, reviewing contemporary discussions of its function and significance. I considered how imaginative engagement can support critical thinking by enabling perspective-taking, hypothesis generation, and the creative re-framing of problems.

Finally, I addressed the role of emotions and feelings, drawing on recent scholarship to challenge the traditional view that these are obstacles to reasoning. Instead, I showed how emotions and feelings can enhance critical thinking by guiding attention, motivating inquiry, and contributing to evaluative judgments.

Chapter 5: An Aesthetic Framework for A Beautiful Piece of Philosophy

Building on the previous chapter's discussion of emotions, feelings, and imagination in aesthetic experience, this chapter explores the concept of beauty as it applies to a piece of philosophical writing. This chapter's central aim is to offer an account of what it is for a piece of philosophy to be beautiful. Drawing on Milena Ivanova (2023) and Alice Murphy's (2023) work on applying the concept of beauty beyond its traditional application to art and nature, the chapter applies aesthetic insights to philosophical writing, arguing that qualities such as disruptiveness, clarity, and precision can serve as aesthetic criteria for evaluating philosophical works. This supports the broader thesis that reasoning is not merely a cognitive process, but an integrative experience involving multiple faculties.

I begin this chapter by demonstrating the role of aesthetic values in scientific experiments, focusing on the work of Milena Ivanova and Claire Anscomb. Their views help to show how features like simplicity, elegance, and clarity are not only epistemically valuable but also contribute to the aesthetic appreciation of scientific work. Drawing on their discussions, I raise the question of whether similar aesthetic considerations can apply to a piece of philosophy.

From there, I introduce the concept of functional beauty (FB) and argue that it offers a promising framework for judging the beauty of philosophical works. After outlining different accounts of FB, both internalist and externalist, I develop a minimal account that focuses on the alignment between a philosophical work's form and its function.

After that, I discuss why functional beauty is the right account to judge the beauty of philosophical pieces. In that same section, I evaluate the existing accounts of beauty in philosophical works.

In the next section, I propose a set of features such as clarity, precision, critical thinking, open-mindedness, and disruptiveness, that can help us assess whether a philosophical work is well-formed for fulfilling its function. These features are not meant to be final or exhaustive, but they provide a useful guide for thinking about philosophical beauty in concrete terms.

Finally, I address an objection to this framework, from the case of Nietzsche's *Thus Spoke Zarathustra (1883/2020)*, which seems to lack traditional features like clarity and precision but still strikes many readers as beautiful. I argue that such works can still be functionally beautiful when their form is well-suited to their philosophical aims.

5.1 The Aesthetics of Scientific Experiments

A growing body of literature in the philosophy of science has examined the role of aesthetic values in scientific practice, with particular attention to how qualities like simplicity, elegance, and symmetry influence theory choice and scientific discovery. (Ivanova and French, 2020), (Ivanova and Murphy, 2023). Milena Ivanova has been a significant contributor to this discourse. She argues that aesthetic considerations are not merely subjective or peripheral to science but are integral to its epistemic processes. In her words "There are many parallels between science and art. In both areas, we can create products of great aesthetic value, engage in activities that are deeply aesthetically pleasing, and produce outcomes, whether artworks, theories, models, or experiments, using imagination and creativity." (Ivanovna, 2023, pp.15). In addition to Ivanova's work, Claire Anscomb's exploration of beautiful experiments in science and art offers valuable insights into the aesthetic dimensions of scientific practice.

In this section, I will present both Ivanovna's and Anscombe's work on aesthetics in science. This will provide the background for the following sections.

5.1.1 Milena Ivanova and The Value of Aesthetics in Scientific Experiments

Milena Ivanova's work on the value of aesthetics in scientific experiments offers an exploration of how aesthetic considerations play a significant role in the practice of science. Her research highlights the importance of features such as simplicity, elegance, and beauty in the evaluation and success of scientific experiments. Ivanova argues that aesthetic values are deeply intertwined with the epistemic virtues of scientific practice. This suggests that the beauty of an experiment often correlates with its explanatory power and empirical success. (Ivanova, 2023, pp.26).

Ivanova's analysis begins with the premise that aesthetics in science is not merely superficial or subjective but is closely linked to the cognitive and epistemic goals of scientific inquiry. For instance, the concept of simplicity in scientific experiments is often equated with beauty and is valued for its ability to provide clear and understandable explanations of complex phenomena. Ivanova draws on historical examples to illustrate this point, such as Galileo's experiments on

the motion of objects. Galileo's inclined plane experiment that is designed to measure the acceleration of rolling balls is admired for its simplicity and precision. The experiment's elegant design allowed Galileo to isolate and measure variables effectively and led to the formulation of the law of inertia. Here, simplicity is not just an aesthetic virtue but is integral to the experiment's success in revealing fundamental physical principles. (Ivanova, 2023, pp.22).

Ivanova also discusses the role of elegance in scientific experiments which she defines as the harmonious combination of simplicity and explanatory power. An experiment is elegant when it achieves significant results with minimal complexity. A prime example is James Clerk Maxwell's equations in electromagnetism, which Ivanova references to emphasize the elegance of scientific theories that unify diverse phenomena under a simple mathematical framework. Although not an experiment in the traditional sense, Maxwell's equations exemplify the aesthetic appeal of simplicity and unification in scientific reasoning. This quality is often sought after in experimental design as well. (Ivanova, 2020, pp.91).

Ivanova also explores the aesthetic criterion of beauty in science, particularly how it influences the acceptance and recognition of scientific work. She cites Albert Einstein's theory of relativity as a case where beauty played a crucial role in its initial reception. Einstein himself was guided by an aesthetic sense of beauty in formulating his theory which he believed should be simple yet profound: his view was that such theories reflect an underlying harmony in nature. The subsequent experimental confirmation of relativity, such as Arthur Eddington's 1919 solar eclipse expedition, not only validated Einstein's theory but also illustrates how the aesthetic appeal of the theory's elegant predictions can serve as an indicator of its predictive success. (Ivanova, 2020, pp. 88). As Ivanova says, "Many scientists hold that a beautiful theory is more likely to be true, so if faced with a choice between two theories, the simplest or more beautiful theory is to be epistemically privileged." (Ivanovna, 2020, pp.88)

Ivanova also examines the aesthetic dimension of operational simplicity where the beauty of an experiment is linked to the minimalism of its procedures and the clarity of its results. She references Leonardo da Vinci's studies of fluid dynamics where simple observational setups led to complex ideas about the behaviour of fluids. Da Vinci's method of using simple apparatuses like channels and dyes to observe water flow, demonstrated how operational simplicity could yield scientific outcomes. This approach is echoed in modern scientific practices where experiments that achieve clarity and depth of understanding with minimal complexity are often celebrated for their aesthetic and epistemic virtues. (Ivanova, 2022,

pp.3424). She explains the relations between simplicity and beauty of a scientific experiment as such: “Experiments are beautiful because of the simplicity, elegance, economy and aptness of their design, showing the creative and imaginative thinking of the experimenters.” (2022, pp. 3426).

In her discussion, Ivanova addresses the potential criticism that the use of aesthetic criteria in science might introduce subjective bias into scientific practice. She responds by arguing that aesthetic judgments in science are not arbitrary or purely personal but tend to align with widely recognized epistemic values such as coherence, simplicity, and explanatory power. According to Ivanova, when scientists describe an experiment or theory as beautiful, they are often referring to its ability to organize complex phenomena in a unified and intelligible way. While the beauty of such work may not be identical to its truth-revealing capacity, there is a strong correlation between the two. That is, scientists are drawn to elegant and simple explanations not merely because they are aesthetically pleasing, but because these features frequently signal epistemic virtues. In this sense, aesthetic judgments function as reliable heuristics rather than as subjective preferences, helping to guide scientific inquiry toward deeper understanding rather than distorting it. This, Ivanova suggests, helps to defuse the worry that aesthetics introduces bias, since the aesthetic preferences at play are themselves shaped by and responsive to the aims and norms of scientific knowledge. (Ivanova, 2020, p. 92).

5.1.2 Anscomb and Beautiful Experiments in Art and Science

In *Beautiful Experiments in Art and Science* (2023), Claire Anscomb examines the concept of beauty in both scientific inquiry and artistic creation, noting a distinct asymmetry in how aesthetic value is assigned in each field. She observes that scientific experiments are often praised for their elegance and economical design, whereas twentieth-century avant-garde art is frequently valued for its rejection of traditional standards of beauty. However, what constitutes a traditional standard of beauty in art is complex and varies significantly across historical and cultural contexts. Elegance and economy have certainly been admired in some artistic traditions, particularly in classical antiquity and certain strands of modernism where simplicity and structural clarity were often associated with aesthetic merit. Yet many other traditions have valued richness, intricacy, and ornamentation. Baroque painting, Rococo interiors, and Persian miniatures, for example, exemplify forms of art that derive their beauty from elaborate detail and visual abundance. This historical diversity challenges any simple association between simplicity and aesthetic value. Similarly, twentieth-century avant-garde art did not adopt a single stylistic response to tradition. While some artists, such as Mondrian and Malevich,

embraced geometric clarity and minimalism, others, like Dalí and the Surrealists, turned toward psychological intensity and visual complexity. Thus, the aesthetic value found in avant-garde art emerges not solely through a rejection of beauty but through a reimagining of its criteria. In some cases, this involves stripping down to essential forms, while in others it includes layering meaning through dense and often provocative imagery. In science, beauty is typically associated with qualities such as simplicity and clarity—features that evoke an aesthetic response. Anscomb refers to Isaac Newton's prism experiment, in which a simple arrangement using a prism to separate white light into a spectrum of colours revealed fundamental properties of light. The beauty of the experiment lies not only in its result but also in the clarity and ingenuity of its design, which allows for the precise demonstration of a significant scientific principle. (Anscomb, 2023, pp. 38).

In contrast, avant-garde art, as Anscombe discusses, often derives its aesthetic value from its capacity to challenge and subvert traditional expectations rather than conform to them (2023, p. 42). Marcel Duchamp's *Fountain* (1917/2024), a signed urinal presented as art, is frequently cited as a provocative example. Rather than aiming to be beautiful in the conventional sense, *Fountain* is valued for its conceptual boldness and its ability to disrupt normative assumptions about what counts as art. While Anscombe suggests that there may be a kind of aesthetic value in its power to provoke intellectual engagement and motivate redefinitions of art, it remains debatable whether *Fountain* should be described as beautiful. Many would argue that its significance lies precisely in its rejection of traditional aesthetic aims, illustrating that art can serve functions beyond producing beauty or eliciting aesthetic pleasure. This raises an important question about whether works like *Fountain* possess aesthetic value at all, or if their value is better understood in conceptual, critical, or historical terms. Anscombe's discussion invites reflection on whether aesthetic value must always be tied to beauty, or whether it can also include qualities like insight, disruption, or innovation.

Anscomb traces a shift in both science and art toward valuing the relationship between an experiment or artwork and the theoretical or conceptual claims it engages. Despite this shift, she argues that scientific experiments continue to be praised for their beauty, while artistic experiments like Duchamp's are often appreciated for their conceptual innovation rather than aesthetic appeal. This raises the central question of whether there exists a conception of beauty that can reconcile these differing evaluations. Initially, Anscombe considers a Kantian notion of beauty as "disinterested, sensuous pleasure." (2023, p. 45), but she finds this framework inadequate for capturing the aesthetic value in certain scientific and artistic practices.

According to Anscombe, Kantian aesthetics, which locates beauty in a detached pleasure that does not depend on personal desire or the object's utility and emphasizes harmony and formal unity, is too limited to account for the richness of aesthetic experience in these contexts. For instance, a Kantian might locate beauty in the final outcome of an experiment, appreciating the clarity or elegance of a discovered law. Yet this, according to Anscombe, neglects the aesthetic significance of the experimental design itself, including the ingenuity, simplicity, and problem-solving involved in constructing the setup. The enduring beauty of Newton's prism experiment or Pasteur's swan-neck flask lies in how these designs reveal hidden truths through carefully crafted procedures, not merely in what they uncover. Similarly, while the Kantian view may recognize the imaginative appeal of conceptual art, it cannot fully address the discomfort, provocation, or emotional tension such works often produce. These reactions, as Anscombe points out, do not align with the harmonious and pleasurable experience that is central to Kant's account of beauty. In sum, applying a Kantian view to conceptual art might capture the imaginative engagement such works provoke but fails to account for the discomfort or challenge that many such artworks intentionally evoke, emotions that do not align with Kantian ideas of beauty.

In response to these limitations, Anscomb turns to the concept of functional beauty which is experienced when we appreciate how an artist or scientist has achieved a goal with their chosen materials and methods. This concept is particularly apt for avant-garde and conceptual art where beauty is often found not in the aesthetic features of the object but in the artist's intent and the way it is executed. John Cage's 4'33" (1952), for example, is a composition where the "music" consists of the ambient sounds in the environment during the performance. The beauty of 4'33" lies in its ability to shift the listener's perception and make them aware of the musicality in everyday sounds and silence.

Anscomb emphasizes that the beauty of a scientific experiment often lies in its ability to communicate complex ideas with clarity and efficiency, just as avant-garde art can be beautiful in its capacity to provoke thought and challenge perception. To find a suitable account of beauty that can be applied to both avant-garde art and scientific experiments, Anscomb explores functional beauty and argues that it is well-suited for evaluating the beauty of scientific experiments, as it considers not just the object's sensory appeal, but also its content and function. As Anscomb puts it: "Both artistic and scientific experiments can exhibit sharpness, simplicity, and economy in their designs, although whether these properties are manifested in the results may vastly differ between these domains. Nevertheless, the presence of these properties in the

designs of artistic and scientific experiments may not only track but actually contribute to their success. Hence, these experiments may be experienced as functionally beautiful if they are well-formed for their functions.". (2023, pp.54).

Anscombe argues that functional beauty provides a useful way of thinking about the aesthetics of scientific experiments. I will now elaborate on the notion of functional beauty, with a view to applying it in making judgments about the beauty of a piece of philosophy. The main question is: How can we judge a piece of philosophy as beautiful? I suggest that the concept of functional beauty is useful in this context.

5.2 Functional Beauty

The concept of functional beauty (FB), though often applied to physical objects, can also be adapted to evaluate scientific experiments and theories (Ivanova and French, 2020; Anscomb, 2020), and, I suggest, philosophical works. This adaptation involves assessing how well a philosophical piece fulfils its intended purpose and how its aesthetic qualities contribute to or emerge from this function.

5.2.1 Different Accounts of Functional Beauty

According to Andrea Sauchelli (2013, pp. 41), there are two broad kinds of accounts of FB; externalist accounts and internalist accounts. Externalist accounts of functional beauty posit that an object's functionality is necessary but not sufficient for it to be considered beautiful. (Sauchelli, 2013, pp. 42). According to this view, the object must perform its primary function effectively, but this alone does not guarantee beauty. Additional aesthetic features, unrelated to its function, may be required to render the object beautiful. When applied to philosophical works, this implies that for a piece to be deemed beautiful, it must not only fulfil its primary function, such as providing clear, rigorous arguments or offering insightful analysis, but also possess qualities that contribute to its overall aesthetic appeal. For instance, a philosophical essay might be compelling in its reasoning, but if it lacks elegance in its expression or structure, it may not be considered beautiful according to externalist criteria. The externalist approach emphasizes that beauty goes beyond mere functionality; the essay must also exhibit formal or stylistic qualities that enhance its effectiveness in conveying its philosophical message.

In contrast, internalist accounts of functional beauty suggest that an object can be judged as beautiful based on how its appearance or structure relates to its function. Internalist views do

not necessarily hold that functionality is sufficient for beauty; rather, they focus on how the object's aesthetic properties contribute to or align with its functional purpose. Stephen Davies (2006, pp.237) argues that a work is functionally beautiful when its aesthetic properties, such as clarity, coherence, and elegance of expression, positively enhance its ability to fulfil its intended function. In the context of a philosophical work, this would mean that beauty arises when the clarity of language, logical structure, and overall elegance of expression not only serve the work's philosophical goals but also make the work more comprehensible and engaging. For example, a philosophical work that not only provides rigorous analysis but does so with grace and eloquence would be considered beautiful according to the internalist view. Thus, internalist accounts emphasize the interdependence of form and function, where the object's aesthetic qualities directly support and enhance its functionality.

The key difference between externalist and internalist accounts of functional beauty lies in how they conceive the relationship between function and aesthetic value. Externalist accounts treat functionality as a prerequisite for beauty but argue that it is not enough on its own; an object must also display additional aesthetic qualities that go beyond its practical purpose. For instance, a philosophical essay may succeed in presenting rigorous arguments, yet it would only be judged beautiful if it also possesses stylistic elegance or expressive grace. In contrast, internalist accounts locate beauty within the very interplay of form and function, emphasizing that aesthetic qualities are beautiful precisely because they enhance an object's ability to fulfil its purpose. From this perspective, the clarity, coherence, and elegance of a philosophical work are not mere embellishments but integral to how effectively the work communicates its arguments. Thus, while externalism stresses the independence of beauty from function, internalism highlights their interdependence.

Parsons and Carlson (2008, pp.46-48) further refine the internalist perspective by suggesting that the aesthetic qualities of a work emerge from its function. For philosophical works, this implies that a text 'looks fit' when it possesses features indicative of philosophical rigor and lacks contra-standard elements that would detract from its purpose. A philosophical argument might appear elegant and effective when it systematically addresses counterarguments, builds a coherent case, and demonstrates an intellectual depth that is reflected in both its form and content.

Panos Paris (2020) offers a revised account of functional beauty that integrates elements from both internalist and externalist perspectives. He argues that an object is functionally beautiful

if it is well-formed for its function and pleases competent judges based on this well-formedness. (Paris, 2020, pp. 521). In the case of philosophical works, a text would be considered functionally beautiful if it is meticulously constructed to achieve its philosophical aims, such as presenting a well-supported argument or exploring a complex issue, and if it is appreciated by knowledgeable readers for this well-constructed nature. Paris's account aligns with Hume's notion of the 'true judge,' where the appreciation of functional beauty requires a combination of intellectual competence and aesthetic sensitivity. (Hume, 1777, pp. 241).

5.2.2 Minimal Account of Functional Beauty for Philosophical Pieces

To develop a more robust account of functional beauty that can be used to judge the beauty of philosophical works, it is helpful to preserve the core elements that supporters of functional beauty generally agree upon. This minimal account aims to provide a common ground between the various theories discussed above that offers a framework that draws from both externalist and internalist perspectives while avoiding over-reliance on the specifics of a single theory.

At the core of this minimal account is the claim that functional beauty involves the alignment of form and function. This is a principle that both externalist and internalist accounts of functional beauty can agree on, even though they may diverge on the details. A philosophical work is considered functionally beautiful if it is well-constructed to achieve its philosophical aims and if its aesthetic qualities contribute to this functional success. For example, a philosophical text that rigorously explores a complex issue, presents a clear and well-supported argument, and engages the reader through its logical structure and eloquence would be judged as functionally beautiful. This reflects the idea that beauty in a philosophical work is not solely about stylistic grace or elegance, but also about how effectively its form contributes to its intellectual purpose.

While this minimal account emphasizes the alignment of form and function, it also incorporates elements that some, but not all, theorists might endorse, such as the role of competent judges in appreciating functional beauty. The idea that beauty requires appreciation by those knowledgeable in the field, who can discern the effectiveness of a work in achieving its purpose, is a feature of Panos Paris's (2020) account, where competent judges are crucial to evaluating well-formedness. However, this notion may not be universally accepted across all perspectives discussed in above. For instance, internalists like Stephen Davies (2006) emphasize the relationship between aesthetic properties and function without necessarily invoking the expertise of competent judges.

To state the minimal account drawing from the discussion above: *A philosophical work is functionally beautiful if its form is appropriately designed to fulfil its philosophical function, and its aesthetic qualities enhance the effectiveness of that function.* Thus, the minimal account proposed here does not claim to be a strict consensus on all points. Instead, it seeks to capture what is common across different theories of functional beauty, namely, the central role of form-function alignment, while acknowledging that some additional details, such as the importance of competent judges, may not be as broadly accepted. These additional features, like the appreciation of knowledgeable readers, are included in this minimal account because they enhance our understanding of how beauty in philosophical works might be recognized, even if they are more relevant to certain theories than others.

In summary, the minimal account of functional beauty offers us a suitable framework to judge the beauty of a philosophical piece. It focuses on the alignment of form and function, and it offers a framework that can accommodate a range of different perspectives. In other words, FB provides a practical, flexible method for evaluating beauty in philosophical works that accommodates different theoretical emphases while focusing on the core idea of form-function alignment.

5.3 Why Functional Beauty Is Better Than Other Frameworks for Understanding Philosophical Beauty

Having outlined the core principles of Functional Beauty (FB), I now turn to explain why FB is a particularly suitable framework for evaluating the beauty of philosophical works. I then compare FB with several alternative approaches to demonstrate its comparative advantages.

I argue that Functional Beauty is a suitable framework for evaluating the beauty of philosophical works for several reasons. First, FB centres on the functions and well-formedness of an object, which are more tangible and accessible criteria in philosophical work than sensory perception. In philosophy, the appreciation of beauty does not primarily rely on immediate sensory experience, as it might in art or nature. By emphasizing form and function, FB provides a framework that is easier to apply to abstract concepts and theoretical structures. (Paris, 2020, p. 519).

Second, FB offers a comprehensive evaluation by considering both the form and quality of a work, as well as how these elements contribute to its intellectual goals. This holistic approach aligns well with the nature of philosophical writings, where clarity, coherence, and intellectual

depth are crucial markers of quality. FB allows for an assessment based on how the different elements of a philosophical text—its arguments, structure, and methodology—work together to achieve its purpose. This provides a more objective criterion for evaluating the beauty of philosophical work, as it is tied directly to how well it functions in achieving its intellectual aims.

Third, FB is adaptable. This makes it applicable to various forms of philosophical writing, from books to articles. Its flexibility allows it to account for different genres and styles of philosophical works, whether they are highly technical or more expressive in nature. What makes Functional Beauty adaptable is its focus on how an object's various elements contribute to its function, rather than tying beauty to a specific form, style, or sensory experience. Because FB assesses beauty based on the successful performance of a function—whether that function is argumentative clarity, conceptual coherence, or intellectual provocation—it can be applied to a wide range of philosophical works regardless of their genre, style, or tradition. Whether the work is a highly technical analytic paper, a narrative-driven philosophical essay, or a cross-disciplinary exploration, FB provides a flexible evaluative framework. Its adaptability stems from this focus on functionality rather than fixed aesthetic criteria, allowing it to evaluate the beauty of philosophical works in diverse contexts without losing its explanatory power. Furthermore, FB has proven its usefulness in evaluating the beauty of scientific experiments (Ivanova, 2022) and theories (Anscomb, 2023)—domains where beauty does not necessarily stem from perceptible or formal aesthetic qualities but from the way in which objects serve their function.

With these advantages in mind, I now situate FB within the broader landscape of theories of philosophical beauty and compare it to notable alternatives.

One prominent alternative is Jiri Benovsky's account, which holds that beauty in philosophy can emerge from the internal structure and coherence of a theory. (Benovsky, 2016, p. 109). Similarly, Crispin Sartwell, drawing on the Hindu concept of beauty, emphasizes intellectual enlightenment and the harmony of ideas. (Sartwell, 2004, p. 59). Both perspectives focus on how beauty in philosophy is tied to formal and intellectual qualities. Although these views have merit, they still align with FB in recognizing the importance of structure and coherence. What sets FB apart is its explicit connection between these formal qualities and the work's functionality—its success in fulfilling its philosophical objectives. This makes FB a more comprehensive framework for judging the beauty of philosophical works.

Robert Pasnau's critique of functionalism presents a more significant challenge. He argues that beauty in philosophy is intrinsic and cannot be reduced to functionality. Pasnau contends that philosophical beauty stems from its ability to provoke wonder and intellectual satisfaction, independent of practical or explanatory utility. As he puts it, "Philosophical beauty rests in the power of one's arguments, the originality of one's ideas, the depth of one's reasoning, the clarity of one's prose." (Pasnau, 2012, p. 5). While Pasnau's view rightly highlights the aesthetic value of philosophical insight, FB does not necessarily deny these aspects. Rather, it incorporates them by suggesting that the emotional or cognitive impact of a philosophical work is part of its function. For example, a work that provokes wonder does so through the successful presentation of its ideas, meaning that the ability to inspire is itself a function contributing to the work's beauty.

Nick Zangwill, although not directly addressing philosophical beauty, offers an account of beauty in literature that may be generalized to philosophy. Zangwill's perception-dependent beauty (2001) provides a relevant perspective here. Although this approach might initially seem ill-suited for philosophical works, it's important to clarify that Zangwill does not restrict beauty to the visual aspects of a text. He argues that beauty in literature, and potentially in philosophy, can arise from the interplay between a work's content and its expression. He suggests that the sonic and structural elements of language—such as rhythm and phrasing—can align with underlying ideas, enhancing their aesthetic impact. (Zangwill, 2001, pp. 69–72). This approach could apply to philosophical works where form, word choice, flow, and style affect how arguments resonate with readers. However, Zangwill admits that much of what engages us in literature and philosophy might not align with his concept of beauty. (Zangwill, 2001, pp. 135–137). In philosophy, where clarity and intellectual rigor are paramount, beauty often relates more to content and function than to form. Therefore, I argue that a functional beauty approach, which assesses how a work's elements serve its intellectual aims, is more appropriate for evaluating philosophical beauty. While perceptual aspects may play a role, they are less central in philosophy compared to literature or the arts.

In sum, while perceptual theories of beauty may struggle to explain the aesthetic appeal of philosophical works, accounts offered by Benovsky, Sartwell, and Pasnau present valuable alternatives. Nevertheless, I maintain that the functional approach offers a more comprehensive and adaptable framework. It accounts not only for formal and intellectual qualities but also integrates the emotional, cognitive, and expressive dimensions of philosophical work into a

unified theory of beauty. FB does not exclude existing views but subsumes them within a broader, more robust framework.

5.4 Features That Make a Piece of Philosophy Well-suited for Performing Its Function

In this section, I give a brief list of possible functions of a philosophical piece. Then, I outline five functions that a philosophical work should fulfil to be considered well-suited in this context. These features are not final. As philosophy evolves and explores new directions, additional functions may emerge, and some existing ones might need to be revised or redefined. Also, we might find one or two of these features in a piece, or we might find all of them in one piece. We might also find them in different degrees which might change the piece's degree of beauty.

5.4.1 Functions of Philosophy

The meta-philosophical inquiry into the functions of philosophy seeks to understand the purpose and goals of philosophical inquiry. This section provides a survey of key views on the functions of philosophy that illustrates its diverse roles and methodologies across different traditions. While this is not an exhaustive account, it offers a foundation for understanding how the beauty of philosophy is tied to its ability to fulfil these functions.

Philosophy's function varies across traditions, and understanding this diversity helps in appreciating the different ways philosophy can be judged for its beauty. For instance, Robert Nozick's *Philosophical Explanations* (1981) suggests that one of the aims of philosophy is to provide understanding rather than definitive answers; he emphasizes the creation of explanatory frameworks. This contrasts with approaches that focus on seeking truth as the goal of philosophy. For example, Plato's dialogues are focused on finding the one true answer to the question that the characters are discussing. Another function could be ethical guidance. Alasdair Macintyre's *After Virtue* (1981) emphasizes the historical and cultural role of philosophy, especially in shaping moral and ethical systems.

Conceptual analysis, a tradition prominent in the 20th century, emphasizes clarifying language and resolving philosophical problems through linguistic examination. For example, Ludwig Wittgenstein's *Tractatus -Logico-Philosophicus* (1921/2023) explores how philosophical problems arise from misunderstandings about language. This suggests that one of philosophy's functions is to dissolve confusion around vague thoughts and concepts that stem from human language and communication.

In contrast, critical inquiry emphasizes philosophy's role in challenging societal structures and power dynamics. Jürgen Habermas' *The Theory of Communicative Action* (1984) posits that philosophy generates rational discourse and critiques social power structures. Michel Foucault, through his work *Discipline and Punish* (1975), uses philosophical analysis to explore historical conditions, power, and knowledge, focusing on the relationship between these elements.

Philosophy also plays a significant public role in democratic discourse and social justice. Martha Nussbaum's *Not for Profit: Why Democracy Needs the Humanities (*2010) emphasizes philosophy's contribution to providing critical thinking and promoting democratic citizenship. Cornel West's *Democracy Matters 2004* extends this by addressing issues of social justice.

The purpose of surveying diverse views is to show that philosophy serves multiple functions, and its beauty can be judged by the way in which it fulfils these roles. This flexibility allows different types of philosophical work to be considered beautiful. While philosophy may offer understanding, critique societal structures, or promote public discourse, many of its functions share a common aim: the pursuit of truth. I argue that the beauty of a philosophical work is rooted in its functional beauty, to the *way* in which it fulfils its purpose. Whether that purpose is truth-seeking, ethical guidance, or critical inquiry, the work's aesthetic merit is tied to how well its structure, clarity, and argumentation align with its philosophical aims. I focus on truth-seeking as a means to explore how philosophical works can achieve beauty in the ways that will be discussed below. In the next section, I focus on truth-seeking as a core function of philosophy. Although other functions exist, truth-seeking has historically been central, from analytic philosophy's focus on conceptual clarity to the broader goal of explaining reality and guiding human action. The alignment of form and function in philosophy is often judged by how well it contributes to this aim of uncovering truth.

It should be noted that the functions of a particular work of philosophy might be set by the philosopher or interpreted by the reader. However, this does not imply that any feature could contribute to a work's beauty simply because an interpreter takes it to further some philosophical aim. The functions of philosophy are not wholly subjective. Not just anything can count as a genuine philosophical function because philosophy operates within a framework of widely recognized aims. Although philosophers may emphasize different functions, such as providing conceptual clarity, improving critical inquiry, or promoting public engagement, these functions are not arbitrary. They share a common orientation toward truth, whether that is

pursued through conceptual analysis, linguistic clarification, or critical reflection. In this section, I argue that a significant function of philosophy is its capacity to uncover and present truth, regardless of which other functions are employed to achieve it.

Although there are various accounts of what philosophy should aim to do, truth-seeking remains a central function across many traditions. For example, in conceptual analysis or critical inquiry, the aim is often to clarify, expose, or critique in pursuit of a more truthful or accurate understanding of the world. In this sense, the pursuit of truth serves as a benchmark for evaluating whether a philosophical piece is well-formed and aesthetically beautiful. Thus, while I acknowledge the existence of different functions, not all of them contribute equally to the beauty of a philosophical piece explored here. A work of philosophy can be considered beautiful when it successfully fulfils its function, and when it does so through the pursuit of truth. This does not exclude other functions, but it does set parameters for what features can be considered relevant to philosophical beauty.

One might argue that philosophy is not unique in its pursuit of truth, as disciplines like religion, science, or therapy can also aim for similar goals. However, what sets philosophy apart is its use conceptual analysis as a distinctive method in the pursuit of truth. Philosophy critically examines fundamental concepts, such as existence, knowledge, ethics, and reality, through reasoned argumentation and logical analysis. This distinguishes it from disciplines like religion, which may explore similar questions but rely on faith or revelation rather than systematic reasoning. Moreover, while the natural sciences seek to understand reality through empirical and experimental methods, philosophy often investigates the underlying principles that guide scientific inquiry itself, principles like causality, truth, and objectivity, using conceptual analysis as a key step toward uncovering deeper truths.

It should be noted here that while philosophy undertakes many tasks, including normative inquiry, empirical engagement, and speculative theorizing, conceptual analysis plays a role in nearly all of them. Even in empirical philosophy, where observation and data collection are central, philosophers clarify and refine the concepts they are applying or testing. For example, concepts of belief, intention, or well-being must be carefully analysed. This analytical work ensures that empirical investigations address coherent and meaningful questions and remain grounded within the broader philosophical landscape.

Another distinctive function of philosophy is its role in evaluating and critiquing ethical, political, and cultural systems from a normative standpoint. While other disciplines, such as

sociology or political science, may analyse these systems descriptively, philosophy engages in the justification of norms and values, providing reasoned arguments for why certain systems should or should not be accepted. This normative focus gives philosophy a distinct role in ethical and political discourse. These disciplines do not have to exclude each other: as philosophy can benefit from sociology and political science, they can also benefit from philosophy. Additionally, philosophy's functions include self-reflection and introspection, which might seem similar to the effects of therapy. However, philosophy encourages individuals to examine their beliefs and values in a broader, more universal context, not only for personal well-being, but for the pursuit of objective truth or ethical consistency. Philosophical reflection aims at intellectual rigor and coherence that demands more than the personal introspection encouraged in therapy. Thus, while the effects of philosophy, such as personal reflection, intellectual contribution, or ethical guidance, might overlap with other areas, the functions of philosophy are distinct in their methods and goals.

5.4.2 Features That Make a Piece of Philosophy Well-Suited for Performing Its Function

In this section, I will offer 5 features that make a piece of philosophy well-suited to performing its functions, and therefore, according to my FB account, beautiful. This list is not exhaustive, and it is open-ended: These are some features that I think contribute to the beauty of a piece of philosophy: critical thinking, precision, clarity, open-mindedness and disruptiveness.

Critical thinking in philosophy involves the ability to make judgments or form beliefs after careful consideration. This requires asking the right questions about the subject matter, but it also implies a pursuit of truth. The beauty of philosophical works that emphasize critical thinking can be seen in their rigorous examination of beliefs and the clarity with which they dismantle falsehoods or uncover truths. Descartes' *Meditations on First Philosophy* (1641/2017) serves as an excellent example. In his first two meditations, Descartes critically examines all his beliefs, systematically doubting everything that can be doubted to establish what can be known with certainty. The beauty of this work lies not only in its thoroughness and methodical approach but also in its pursuit of foundational truths. The process of questioning and the clarity with which Descartes navigates complex ideas contribute to its aesthetic value. However, critical thinking that leads to false or unsupported beliefs may undermine the beauty of a philosophical work. For instance, if a philosophical piece encourages skepticism without offering a constructive path to truth, it might fail to be beautiful despite its critical rigor. Thus, the limiting constraint here is the alignment of critical thinking with the pursuit and attainment of truth. However, this does not mean that a work that offers scepticism

but not necessarily the truth of the matter won´t be beautiful. It might reveal a truth about our epistemological limits and thus, can still contribute to the piece´s beauty. Another possibility is that scepticism might help us to reach some other truth later which makes scepticism contribute to a philosophical work´s beauty.

Precision in philosophy refers to the ability to draw clear distinctions, define terms accurately, and establish logical connections. This involves presenting ideas with a strong logical structure, which is central for solving philosophical problems. Kant's *Critique of Pure Reason* (1781/2007) exemplifies precision with its systematic approach and precise definitions. The beauty of philosophical precision is intertwined with the pursuit of truth. Precise arguments are compelling because they minimize ambiguity and enhance understanding. However, precision without truth can lead to the beauty of form without substance. A precisely defined and logically coherent argument that is based on false premises or leads to incorrect conclusions may lack the beauty of true philosophical insight. Therefore, precision in philosophy is beautiful when it not only structures arguments clearly but also guide us toward true and meaningful conclusions. The limiting constraint for precision is the correctness of the underlying premises and the truth of the conclusions derived.

Clarity involves expressing complex ideas in a simple, well-organized manner, allowing readers to follow the philosopher's reasoning without unnecessary complexity. Bertrand Russell's essay *Why I am Not a Christian* (1927) exemplifies clarity through its straightforward and step-by-step presentation of arguments. While clarity enhances the accessibility and understanding of philosophical works, it should not oversimplify or distort the truth. Philosophical clarity that maintains depth and accuracy contributes to the beauty of a work. However, clarity that simplifies complex issues to the point of misrepresentation fails to achieve beauty. The limiting constraint here is the balance between simplicity and the preservation of philosophical truth.

Open-mindedness in philosophy involves being receptive to other possibilities and showing humility about one's ideas. John Stuart Mill's *On Liberty* (1989) discusses the importance of freedom of expression and the willingness to consider opposing viewpoints. The beauty of open-mindedness is evident when it enables the exploration of ideas and the recognition of truths from diverse perspectives. However, open-mindedness that leads to relativism or the acceptance of all ideas without critical evaluation may dilute the pursuit of truth. The limiting

constraint for open-mindedness is the balance between openness to new ideas and the commitment to critically evaluating their validity.

Disruptiveness in philosophy refers to questioning fundamental assumptions and deconstructing accepted norms. David Hume's skepticism about causal inferences is a prime example of this disruptive approach. (Hume, 1748/1975). The beauty of disruptiveness lies in its potential to reveal overlooked truths and challenge complacency. However, disruptiveness that leads to skepticism for its own sake, without providing constructive insights or alternatives, may fail to be beautiful. The limiting constraint for disruptiveness is the balance between questioning existing beliefs and contributing to the advancement of philosophical understanding.

The concern with disruptiveness in philosophy is that it may lead to a kind of ugliness unless it generates greater unification. Disruptiveness involves questioning fundamental assumptions and deconstructing norms, which can initially create fragmentation and chaos. The key lies in how this disruptiveness is directed within philosophical discourse. For example, David Hume's skepticism about causal inferences in *Enquiry Concerning Human Understanding* (1748/1975) disrupted traditional views on causality, challenging scientific and everyday reasoning. While this might create intellectual discomfort, disruptiveness can become beautiful when it leads to deeper understanding and unification. Hume's ideas, for instance, influenced Immanuel Kant, whose *Critique of Pure Reason* (1781/2007) sought to reconcile disrupted views of causality by integrating empirical and rational elements into a cohesive framework.

The beauty of disruptive philosophical works, such as Hume's discussion of causal reasoning, can be understood as arising from their inherent qualities that position them well to play historical roles in philosophy. This suggests that such works possess a kind of beauty not solely based on the outcomes they produce but, on their capacity, to provoke thought and challenge existing paradigms. Disruptive philosophical works are characterized by their innovative ideas and willingness to question established norms. This originality can be appreciated independently of the historical impact they may have. For example, Hume's skepticism about causal reasoning does not need to lead to specific historical developments to be considered beautiful; rather, it embodies a critical engagement with philosophical traditions that invites deeper reflection. Moreover, the beauty of these works lies in their potential to play a transformative role in the philosophical landscape. The very nature of a disruptive idea makes it suitable for change and providing new frameworks of understanding. While Hume's work

may have influenced subsequent thinkers like Kant, its beauty is not contingent upon this influence; instead, it is the disruptive quality itself that renders it beautiful.

In summary, to determine the beauty of a philosophical piece according to the theory of FB, we need to look whether the piece is well-formed in fulfilling its philosophical functions. So, the features developed above are features of being well formed for fulfilling the function of a philosophical piece. The degree to which the piece embodies these features may vary, but the overall assessment of beauty hinges on the integration of these features within the philosophical context.

A natural question to be asked here then is when does philosophy fail to be beautiful? According to framework that is proved, a philosophical piece would fail to be beautiful when it does not effectively fulfil its intended functions or when it undermines the key features that contribute to its functional beauty. For instance, a philosophical work that fails to engage in rigorous examination and does not dismantle falsehoods or uncover truths falls short of critical thinking. An example of this is a work that promotes skepticism without providing a constructive path to truth, which may fail to be beautiful despite its critical rigor. Similarly, a philosophical piece that lacks precision, fails to draw clear distinctions, or establishes logical connections based on false premises is not beautiful. An argument that is logically coherent but based on incorrect conclusions lacks the beauty of true philosophical insight.

When a philosophical work is overly complex or disorganized, making it difficult for readers to follow the reasoning, it lacks clarity. This happens when the simplification of complex issues misrepresents the truth, thus failing to achieve beauty. A philosophical piece that is not open to new ideas or opposing viewpoints, or one that accepts all ideas without critical evaluation, fails in terms of open-mindedness. For instance, a work that rigidly adheres to a single perspective without considering alternative viewpoints might lack the beauty of genuine intellectual exploration. Moreover, philosophy that disrupts fundamental assumptions and norms but fails to provide constructive insights or alternatives can be seen as failing in disruptiveness. For example, if a work is disruptive merely for the sake of challenging existing beliefs without contributing to philosophical understanding, it lacks beauty.

5.5 Objection

An objection to this view could be raised by considering the work of Friedrich Nietzsche. Nietzsche's *Thus Spoke Zarathustra (1883/2020)* is often criticized for its lack of systematic

precision and clarity. The work's poetic style can be seen as disorganized and lacking in the clear logical structure that is typically valued in philosophy. Despite these features, Nietzsche's work is often regarded as beautiful. This suggests that a philosophical piece might still be considered beautiful even if it does not conform to the features of precision and clarity.

Nietzsche's work challenges readers with its prose and disruptive approach to philosophical writing. Far from being a flaw, the lack of clarity and precision enhances the beauty of the work because it serves Nietzsche's larger philosophical aim: to provoke reflective thinking and challenge conventional modes of thought. Nietzsche's disruptiveness is central to the beauty of *Zarathustra*, as it pushes the reader to engage with complex existential and moral questions in a way that traditional, more precise philosophical works might not. His use of allegory, aphorism, and poetic style is integral to this disruptiveness that embodies a form that disrupts the expectations of philosophical argumentation and creates space for new ways of thinking.

Nietzsche's prose style is not merely a lack of clarity or precision, but a deliberate strategy that contributes to the work's philosophical function. The ambiguity and complexity of his writing force the reader to wrestle with the ideas, inviting deeper engagement and interpretation. In this sense, the beauty of *Zarathustra* lies precisely in its form, which supports its disruptive content. Had Nietzsche chosen a more transparent or conventional style, the work's power to disrupt and provoke might have been diminished.

It means that clarity and precision are not always required for philosophical beauty, especially in works like *Zarathustra* where disruptiveness is central. In fact, *Zarathustra* is beautiful *because* it lacks clarity, its style creates a unique form of beauty that lies in its ability to disrupt established modes of thinking. Thus, philosophical beauty does not require a work to have all the features that contribute to the fulfilment of a traditional function of philosophy (such as clarity or precision); instead, beauty can emerge from how well a work fulfils its particular philosophical aim. As in Nietzsche's case, it might include disruptiveness and can lack clarity. It does not necessarily make it less beautiful since its vagueness contributes to its disruptiveness.

Lastly, I wish to further clarify a point that arises when we consider the objection. One might think that a particular argument in a philosophical piece is beautiful but the whole work itself is not. We can distinguish between the beauty of individual arguments and the overall beauty of a philosophical work. In Nietzsche's *Thus Spoke Zarahustra*, the beauty lies not just in its arguments but in its broader philosophical impact. While dense prose may obscure clarity, it

also reflects the complexity of existential questions, making the work more engaging. Nietzsche's intricate style mirrors the ambiguity of human freedom, deepening the reader's experience. Similarly, Kant's and Hegel's difficult language does not detract from the beauty of their works; it challenges readers to explore their insights, in much the same way that the difficulty of understanding an abstract painting productively challenges the viewer. The beauty of these works is found in how they provoke deep reflection and reshape philosophical thought as a whole. Therefore, a work's overall beauty can persist even if its arguments are challenging to access due to dense prose. The beauty of philosophical works is not just in individual arguments but in the total experience they offer, with complexity enhancing their impact.

Conclusion

In this chapter, I have first presented the concept of beauty in the sciences, discussing the relevant literature and extending this notion to philosophical works. Building on these foundations, I have proposed a framework for evaluating the beauty of philosophical pieces. By drawing on a minimal account of functional beauty, I suggested that a beautiful piece of philosophy should be well-formed for its intended function and exhibit the specific functions outlined in the discussion.

The proposed FB principle serves as a guiding framework that highlights the importance of the functions of philosophical works and the extent to which they are fulfilled. Ultimately, the beauty of a philosophical piece lies not just in its content but in the way it applies aesthetically compelling methods to achieve its function. This perspective reinforces the broader argument of the thesis that aesthetics plays a role in shaping not only how we engage with philosophical inquiry but also how we assess its intellectual and experiential value.

Although this framework is not exhaustive, it opens avenues for further research and discussion on the idea of a beautiful piece of philosophy. Moreover, it offers an opportunity to integrate emotions, feelings, and imagination into the experience of critical thinking, as the perception of beauty inherently engages these faculties. This suggests that aesthetic considerations in philosophy are not merely ornamental but can enrich philosophical inquiry itself.

Chapter 6: Improvisation as a Dynamic Synthesis of Thinking[10]

This final chapter brings the thesis to its culmination by introducing improvisation as a dynamic synthesis of critical and creative thinking. Improvisation is often thought to be confined to artistic practices. However, just as the previous chapter demonstrated how beauty extends beyond the arts to influence scientific and philosophical inquiry, this chapter will demonstrate how improvisation is a fundamental cognitive process that emphasises and enhances both critical and creative thinking.

I will argue that improvisation is not just a mode of performance but a key concept for understanding *how we think and how we can think better.* By examining improvisation in the context of cognition, problem-solving, and reasoning, I will explore how it functions as an important mechanism for navigating complexity, providing flexibility, and engaging with uncertainty. First, I will discuss improvisation as a cognitive mechanism and a problem-solving tool, we will see how it enables flexible and creative reasoning. Next, I will consider the role of flow and letting go in improvisational thinking, showing how these states contribute to intellectual creativity. I will then examine the connection between hope and improvisation, illustrating how hope sustains creative and critical engagement in uncertain situations.

One of the key themes of this chapter is the interdependence of critical and creative thinking. Improvisation reveals that these two faculties, often considered distinct, are in fact deeply intertwined, each strengthening and enriching the other. Additionally, improvisation connects emotion and imagination to rational thought that offers a more holistic approach to thinking. Holistic here refers to an inclusive mode of reasoning that incorporates feelings, intuition, and creative thoughts alongside logic. In other words, improvisation embodies a way of thinking that is neither rigidly analytical nor purely spontaneous but instead synthesizes diverse cognitive faculties into a dialectic process. In this sense, improvisation should also be understood as an aesthetic mode of thinking. Its holistic integration of emotions, imagination, and perception with rational reflection gives it an aesthetic character in itself. Just as aesthetic experience involves sensitivity, openness, and the transformation of what is encountered,

[10] A version of some of the material in this chapter has been published as (Yazici 2023)

improvisational thinking embodies these qualities by allowing reasoning to be flexible, creative, and affectively attuned.

Within the broader theme of this thesis, this chapter serves as both a theoretical conclusion and a practical embodiment of its central arguments. Throughout this thesis, I have aimed to reimagine critical thinking as a practice that moves beyond analytical frameworks to incorporate emotions and imagination. In this chapter I have reinforced that vision by demonstrating how improvisation provides a concrete model for such an approach. It illustrates that thinking is not merely about logical precision but about creativity and flexibility. By framing improvisation as both a method and a metaphor for reasoning, I have emphasized the thesis's broader claim that critical and creative thinking are inseparable, and their synthesis is important for a creative approach to thought.

Finally, I will address potential objections to this perspective, responding to challenges that might arise in considering improvisation as a fundamental element of reasoning. By the end of this chapter, we will see how improvisation, rather than being an artistic technique, offers a model of thinking that is deeply relevant to both academic and everyday contexts. As the final step in the thesis's argument, this chapter does not merely conclude the discussion but opens a pathway toward rethinking how critical thinking can be transformed into a creative practice that includes emotions, imagination and feelings.

6.1 Improvisation and Thinking

In this section, I will discuss the concept of improvisation in the context of thinking, with reference to the relevant contemporary literature. Improvisation is familiar from the arts, for example when a jazz musician shapes a solo in real time or when an actor adjusts spontaneously to an unexpected cue on stage. These moments capture how skilled, responsive action can unfold without a predetermined script, which is central to the view of improvisation I draw on here. There are two main aims to the section. (1) To show the close relation between thinking and improvisation. (2) To show how critical and creative thinking work together through the concept of improvisation.

I like to think about improvisation as movement. As we move, our movement is directed by two kinds of factors: (1) External and (2) Internal. External factors are perceived through the senses, and they can be anything varying from a sound, a light, a smell etc. Internal factors are about our memory, emotions, feelings, thoughts etc. We constantly act and react to the external

factors through the internal factors. In that sense, they always interact with each other. This interaction results in action for us. However, we still do not know the underlying mechanism, or the algorithm of how this interaction works. I argue that the underlying mechanism to how this interaction works might be improvisation. Let me elaborate on this.

I will start with a quotation from an earlier study of mine where I discuss the act of giving meaning in the context of improvisation:

> While trying to place improvisation within philosophical discourse, we must recognize that it already operates within our thinking. The act of giving meaning to a symbol involves many interconnected factors, such as social and historical contexts, psychological perspectives, past experiences, emotions, interpretive style, and comprehension. These factors interact dynamically when we assign meaning. To fully explain how they engage would require freezing this movement and imposing fixed rules. Instead, I propose that there is an improvisatory process at work. Each time we give meaning, these factors shift in response to the specific moment and context, making human thinking fluid rather than fixed or fully predictable. (Yazici, 2023).

Giving meaning can be seen as an example of how we build associations between a concept or meaning and something we encounter. In reflecting on critical thinking, it can be tempting to blur the line between "how we should think" and "how we do think". While normative accounts of thinking—such as traditional critical thinking frameworks—offer principles, rules, and strategies to guide and improve thinking, they do not fully explain the psychological processes involved in actual thinking. Understanding how we think is a descriptive task, more properly addressed within psychology and cognitive science. Although my focus here is not on conducting empirical research, I aim to reflect on the nature of critical thinking and explore whether and how insights into actual thinking processes can inform normative theories of good thinking. While recognizing that how people actually think is important, it does not automatically determine how we should think. My aim in this chapter is to highlight the potential value of understanding the former in enriching our accounts of the latter, while keeping the distinction between them clear.

In other words, by gaining a deeper understanding of how we actually think, we can better identify practical strategies for improving our thinking. This is similar to studying how the body moves—the relationship between muscles, bones, joints, and organs. Because we understand how these parts function, we can design effective ways to train and strengthen them.

Likewise, while philosophical accounts of good thinking provide normative standards that are not solely dependent on empirical findings, empirical investigation into how we think is crucial for determining how best to train ourselves and others to meet those standards. Rather than relying only on the suggestions and norms proposed by other philosophers, we should also seek to understand the cognitive processes involved and use that understanding to develop methods for enhancing our thinking.

There is one philosopher who shares a similar hypothesis with me on improvisation and thinking: Gilbert Ryle. *On Thinking* (1981*)* is a collection of some of Ryle's essays, two of which are particularly relevant here: 'Thought and Imagination' and 'Improvisation'. In these two essays, Ryle compares two ways of thinking; one he calls "tram", the other "bus". Trams refer to procedural thinking where the thinking person must follow a set of rules or pre-determined steps to get where she wants to go, like a tram travelling along its pre-laid tracks. On the other hand, the bus driver must adapt to hazards, and needs to be spontaneous and innovative. Then he goes on to argue that it is in fact impossible to be completely like a tram in thinking. He gives an example of a person who is banging on a door as an experiment to make the door open. Then this person bangs his hand to the door 50 times and tries to get the door open. Ryle says that every hit will be different. Every hit will make the person think something different, even though it is the same action. Even if someone commands her 'think exactly what you were thinking on the 49th bang', it would be impossible for that person to think the same. So, in that sense, "The command itself would be a fresh influence. To obey it would be to disobey it". (1981, pp. 130). If there is a novel situation that one is faced with, it will generate novel thinking. However, this does not mean that there is no tram way of thinking, or that such thinking is not useful. Ryle calls them drills. (1981). Drills are practices that, through repeated effort and rehearsal, become automatic over time. For example, chanting multiplication tables over and over again requires effort initially, but once the knowledge is deeply ingrained, it can be retrieved without conscious effort, much like recalling the lyrics of a song you listened to repeatedly. The key is that drills involve sustained practice that eventually leads to effortless recall or performance. They do not require any imagination or improvisation. But when there is a diversion from these drills, Ryle argues, improvisation starts to play its role.

Another important issue he raises about these two kinds of thinking is the difference in freedom of action. He says:

> We have no answer to the question 'How did you hit on the wanted phrase?' or the timely joke or the mechanical invention. Yet very often we know that it was not mere luck. We discriminate between the drilled thinking of the computer and the thinking of the joker or the translator of a poem or the inventor by saying, quite correctly, that there is no room for imagination in the former and lots of room for imagination in the latter. And what there is room for in the latter has something to do with these notions of origination, invention, improvisation, discovery, innovation, exploration, experimentation, of knowingly leaving the beaten track. (1981, pp, 58).

We cannot answer the stated question because we do not also know how we came up with that phrase. The mind is so complex that tracing the thought process back would be near to impossible. As soon as we start to reflect on our thought process, we start to re-interpret it, since thinking never stops. A neuroscientist could trace the neural activity in your brain while you were thinking and get a map of that activity at the end. However, I am not sure if that would tell us much about how you came up with the novel idea. It must be noted here that we can trace back an episode of drilled thinking. For example, a student is expected to explain their trajectory of how they solved the mathematical equation. It can be traced back easily because the road is already pre-determined and awaits to be discovered by the student. It is repeatable in that sense. However, improvisation cannot be repeated since it requires that exact moment in which it happened. I am also not saying that solving a mathematical equation cannot be creative. The student may amaze the teacher by coming up with a new way of solving the mathematical equation. In that case, the student can explain how she solved the problem in a new way but may not be able to explain how she came up with the new way.

The drilled thinker has no freedom of action. Just as the tram cannot go out of its way, so the drilled thinker must stay on her predetermined tracks. When the comedian goes off script on the stage, improvisation is the only way to explain how she hit on the wanted phrase. Finally, Ryle claims that "thinking, I now declare quite generally, is, at the least, the engaging of partly trained wits in a partly fresh situation. It is the pitting of an acquired competence or skill against unprogrammed opportunity, obstacles or hazard. It is a bit like putting some new wine into old bottles." (Ryle, 1981, pp. 130). Thinking for Ryle is the combination of training and spontaneity.

In the next sections, I will look at three different ways to understand the connection between improvisation and thinking. They are cognitive mechanisms and problem solving, flow and letting go, and hope.

6.1.1 Improvisation as Cognitive Mechanism and Problem Solving

Improvisation functions as a mode of thinking because it emerges from a continuous interplay between external stimuli and internal resources. Matteucci's (2021, pp.39) metaphor of resonance captures this dynamic process, where external influences, such as social, environmental, or situational cues, interact with internal elements like memory, emotion, and prior knowledge. He describes resonance not as a simple cause-and-effect relationship, but as a mutual engagement within a shared field. As he writes: "When a string 'resonates,' for instance, by being on pitch with the A of a tuning fork, its vibration is not simply provoked by the tuning fork... The relationship between generation and manifestation of the phenomenon is not synthetic... It is analytical: the vanishing of one coincides with the disappearance of the other... The resonant body must correspond to it with a characteristic of its own, which moreover manifests itself only in relation to the shared field." (Matteucci, 2021, pp.41). This concept illustrates a feedback loop in which internal and external elements co-shape the improvisational act. Thinking, in this sense, is not linear or fully predictable but unfolds as a responsive, evolving web of associations.

Improvisation enables flexibility and adaptability, qualities important for navigating complex or ambiguous situations. For instance, when interpreting a philosophical text, a reader may begin with a preconceived framework but must continually adjust their understanding as new insights arise. This dynamic adjustment reflects the improvisational reshaping of thought in response to emerging information, similar to Matteucci's notion of resonance, where interpretations evolve through interaction with context. As a cognitive process, improvisation is deeply tied to its temporal character. Robert T. Valgenti (2021, pp. 68) emphasizes that improvisation occurs in the moment, but not as mere spontaneity or immersion in an external flow of time. Rather, it involves the application of well-practiced routines and familiar responses that prepare one for the unforeseen. This temporality ensures that improvisation remains adaptive, integrating new variables into existing cognitive frameworks. For example, during a live philosophical debate, a thinker must draw on prior knowledge while responding to unexpected challenges. This process is not random but emerges from a balance of preparation, intuition, and situational awareness.

Improvisation's role in problem-solving demonstrates its practical significance as a cognitive mechanism. Problem-solving often requires an individual to navigate unknown territory, adapting their approach to the specific challenges of the situation. Beth Preston's (2021, pp.20) iceberg model of improvisation offers a useful analogy here. While the visible "tip" of the

iceberg represents structured planning, the larger, unseen base symbolizes the improvisational elements that support and enhance adaptive responses. This metaphor highlights how improvisation operates beneath the surface of seemingly methodical processes, allowing for creative and effective solutions. Consider the example of a scientist encountering unexpected experimental data. While the scientist relies on established methodologies and prior knowledge, they must also innovate, generating new hypotheses and approaches to interpret the results. This improvisatory process is evident in scientific breakthroughs, where progress often stems not from strictly following protocols but from the ability to adapt and think creatively in response to anomalies. Similarly, in the culinary arts, a chef might begin with a planned recipe but must adjust their methods based on the availability of ingredients or the preferences of diners. These adjustments rely on improvisation that demonstrates its role as a critical tool for problem-solving across disciplines. In philosophy, improvisation is equally vital. Constructing a philosophical argument, for instance, often begins with a structured framework, but the thinker must remain flexible to address unforeseen challenges. When confronted with counterarguments or complexities that challenge their thesis, the thinker engages in an improvisational process, reconfiguring their position to integrate these new considerations. This dynamic interplay between structure and spontaneity enables a creative critical engagement. Improvisation here is not merely a response to obstacles but a method for discovering novel pathways and perspectives.

Improvisation as problem-solving also reveals its interactional nature. As Georg W. Bertram (2021, pp.26) highlights, improvisation involves a critical engagement with existing norms and frameworks, reconfiguring them to generate new possibilities. As Bertram puts it: “In every moment of an improvisation, new impulses can call for the constitution of new norms. Every impulse within an improvisation can be understood as questioning the norms that governed the improvisation up until the moment it chimed in” (2021, pp.28). This dynamic is evident in the arts, where a jazz musician, for example, must navigate the established rules of harmony and rhythm while introducing spontaneous variations that create a unique performance. Similarly, in cognitive processes, improvisation allows individuals to work within existing structures, whether logical frameworks or empirical methods, while creatively reinterpreting and expanding them to address new challenges.

6.1.2 Flow and Letting Go in Thinking

In this section, I will first discuss the concept of flow and letting go. After that, I will discuss these concepts in the context of thinking. Additionally, I will be discussing their relation to improvisation.

Experience of flow is an experience where individuals feel a total involvement, a very precise focus, better awareness of the environment and senses, and finally, joy. This concept is highly related to improvisation since the experience of flow often occurs in improvisatory performances. In fact, it would be appropriate to say that the experience of flow requires improvisation. In other words, improvisation is the method of flow experiences. Of course, there can be ancient examples of these experiences as well. If we think about ancient rituals in civilizations, they were built around the collective experience of flow. From a similar perspective, today's theatres or concerts aim at the same experience, collectively. One of the reasons why we enjoy concerts is because they can let us experience the flow.

It is not only big events or rituals that induce the experience of flow. Artists have this experience when they are creating, as well as a kid playing a game with her friends. There are probably many forms of the experience of flow in that sense. I even feel it when I am playing a video game, or maybe even right now when I am writing.

Mihaly Csikszentmihayli works on these kinds of experiences. He makes interviews with professional sports people, artists and people from other occupations where this experience can occur. He takes the experiences of flow as a state of immersive engagement in an activity characterized by a sense of involvement and intrinsic enjoyment. (2014, pp.151). He argues that it is an exceptional experience marked by a deep immersion within one's actions, distinct from the dispersed and fragmented mentality of daily existence. He suggests, the experience of flow can be cultivated through rigorous skill development and the intentional arrangement of conducive conditions as in the case of improvisation. However, whether as a participant or observer, flow remains a state one serendipitously enters rather than actively seeks.

This "holistic sensation that people feel when they act with total involvement is called *flow*." (Csikszentmihayli, 2014, pp.150). One of the distinguishing factors of the experience of flow is that distinctions that we have in daily life become blurred. He argues that there is an internal logic of these experiences where one action follows the other as if there is no need for intervention. The actor is still in control, but the control is loosened. This is also combined with a lessened sense of distinction between the environment and self. This unified sense gives the

actor to just act without worrying and thinking about what she is doing. She basically follows the internal logic of the activity. An example from daily life would be walking. Imagine we are walking beside the Hamilton Lake. We do not pay that much attention to our walking, and our steps follow their own logic. This internal logic of the activity speaks to the actor through rhythm. Rhythmic stimulation of the action creates a path for the actor to follow. That rhythm is initiated with the effort of the actor and actor's reaction to the environmental stimulations. After it is initiated, the actor follows it.

Another important trait of the experiences of flow is that they are autotelic (Csikszentmihayli, 204, pp.157). Autotelic activities are ones that are sought mainly for the experience of the activity, not for any external rewards it might bring. "In other words, it appears to need no goals or rewards external to itself." (Csikszentmihayli, 2014, pp.157). For example, I am writing at the moment, and this activity gives me some sort of pleasure. However, I cannot say that I am writing just to have that pleasure. I am writing to complete my PhD studies. Another example might be playing a video game not to finish or win, but only for its intrinsic satisfaction. In that sense, writing can also be autotelic depending on actor's intentions. It must also be noted that there are flow experiences that can occur on a factory assembly line or similar experiences. These activities are not designed to be autotelic, yet the experience of flow can occur out of repetition. I wish to call those experiences of flow out of numbness. You feel numb because it is the same activity over and over again so that you get into the flow as a coping mechanism against the action. In the other cases of flow experiences where artists or sports people get into, instead of repetition and numbness, there is excitement, pleasure and novelty.

Only the second kind of flow experiences are autotelic. Popular examples of those pursuits where flow often occurs are climbing, chess, basketball etc. Games provide the most obvious examples: Csikszentmihayli points out that "play is the flow experience par excellence" (2014, pp.151). Other examples that are more important for this chapter is are flow experiences induced by art, science and even philosophy. In the previous chapter, I discussed the beauty of a philosophical piece. That hints at the idea of an activity of philosophy that can be autotelic: reading or writing a piece of philosophy only for its intrinsic pleasure, because you find it beautiful, and it gives you joy.

Another clear sign of the experience of flow according to Csikszentmihayli is the "merging of action and awareness." (2014, pp.152). The conventional perspective we have towards ourselves and the world is dualistic. We have us, as the actor, and another layer of awareness

that watches over the actor. Csikszentmihayli argues that this dualistic perspective vanishes during the experience of flow. He argues that there is still the awareness that is acting, but not the other one who is watching. This stems from the undivided attention that is a feature of experiences of flow. A tennis player's focus on the opponent and the ball should be undivided. Otherwise, the awareness splits into the dualistic once again, you lose the focus and reflection starts; reflection on what you are doing and how you can do it better. This reflection is a predicament because it intervenes in the action and results in a worse performance. There is a Samurai saying regarding this: "A Samurai swordsman concerned about winning will be beaten by an opponent who is not thus distracted." (Csikszentmihayli, 2014, pp.154). In order to get to the point where the two awarenesses merge, the activity that is done should be well within the scope of our abilities. (Csikszentmihayli, 2014). We get into the experience of flow when the action is within the scope of our abilities. He also adds that that is the reason why the experience of flow occurs in activities that have rules, such as games, rituals and dance. If you are allowed to do anything you want, you cannot get into the flow, because there would no direction for your actions to flow. While some activities, such as entirely freeform dancing, allow for high spontaneity and can certainly produce flow experiences, even these tend to involve an implicit sense of rhythm, movement, or personal intention that gives shape to the activity. Total absence of any form or goal can make it harder to sustain focused immersion, which is central to flow. In other words, the experience of flow requires direction even though it is autotelic. However, this direction should not dominate the activity itself. The intention should still stay on the intrinsic value of the activity.

It must be also noted that getting into the experience of flow requires practice and at least an intermediate level of expertise. It would be hard to get into the flow as a beginner since you do not have enough ability to do it. You would not have the knowledge of the action, the intricacies of the action, the value that it could give you by itself. All these should be known to the actor to get into the flow. An expert rock climber puts the merging of awareness like this: "You are so involved in what you are doing [that] you aren't thinking of yourself as separate from the immediate activity. … You don't see yourself as separate from what you are doing." (Csikszentmihayli, 2014, pp 152). One also needs a very precise and direct attention to what one is doing in order to merge the two awareness. A chess player says: "The game is a struggle, and the concentration is like breathing—you never think of it. The roof could fall in and, if it missed you, you would be unaware of it." (Csikszentmihayli, 2014, pp.152). His focus is so dedicated that he doesn't care if the roof fall in, and he can't focus on any other part of his

mind, his focus is just on the activity. Csikszentmihayli calls this "the centering of attention on a limited stimulus field." (2014, pp.154).

Another characteristic of the experience of flow is the "loss of ego" or letting go of yourself which is the second extra feature of the concept of improvisation. This feature also has other names such as "self-forgetfulness", "loss of self-consciousness" etc. (Csikszentmihayli, 2014, pp.154). Csikszentmihayli warns us that this loss of ego does not mean losing your grip on reality. It often refers to being "intensely aware of your internal processes." (2014, pp.154). He says that climbers have reported a sudden increased muscular activation in their body that they did not know even existed before. This is related to merging of the two awarenesses: perhaps as a result of a unified awareness, one is able to come to an enhanced awareness of oneself. [11] Another caveat from Csikszentmihayli is that we are not actually losing ourselves in this loss of ego. He argues that what is lost is "not the awareness of one's body or of one's functions, but only the self-construct, the intermediary which one learns to interpose between stimulus and response." (2014, pp.154). Once that intermediary has lifted, one finds oneself so close to oneself and the activity as if they were one entity. That is why people in the experience of flow feels like they are not doing the action, it just happens.

Letting go and loss of ego are highly related to each other: to get to the stage of loss of ego, one needs to let go. "Let go" here refers to putting away all those restraints that prevent you from completely immersing yourself with the action. What those might be? Some emotions like fear or doubt. Or some biases towards either yourself or to the action you are doing. It can also be about intention as it is discussed above. If you have an extrinsic intention towards an action, that could stop you from losing yourself within the action. Famous rap musician Eminem's song called "Lose Yourself" explains this process well through its intro, verse 1, and chorus. Here are the lyrics:

[Intro]
Look, if you had one shot or one opportunity
To seize everything you ever wanted in one moment
Would you capture it or just let it slip?
Yo

[11] Can this be the case in critical thinking? Imagine having an enhanced awareness of your internal processes that you can navigate through your thoughts and come up with a better understanding and creativity. This will be discussed below.

[Verse 1]
His palms are sweaty, knees weak, arms are heavy
There's vomit on his sweater already, mom's spaghetti
He's nervous, but on the surface, he looks calm and ready
To drop bombs, but he keeps on forgetting
What he wrote down, the whole crowd goes so loud
He opens his mouth, but the words won't come out
He's chokin', how? Everybody's jokin' now
The clock's run out, time's up, over, blaow
Snap back to reality, ope, there goes gravity
Ope, there goes Rabbit, he choked, he's so mad
But he won't give up that easy, no, he won't have it
He knows his whole back's to these ropes, it don't matter
He's dope, he knows that, but he's broke, he's so stagnant
He knows when he goes back to this mobile home, that's when it's
Back to the lab again, yo, this old rhapsody
Better go capture this moment and hope it don't pass him

[Chorus]
You better lose yourself in the music
The moment, you own it, you better never let it go (Go)
You only get one shot, do not miss your chance to blow
This opportunity comes once in a lifetime, yo
You better lose yourself in the music
The moment, you own it, you better never let it go (Go)
You only get one shot, do not miss your chance to blow
This opportunity comes once in a lifetime, yo
You better (Genius, n.d.)

We see here that Eminem's "Lose Yourself" serves as a powerful metaphor for the struggle between self-doubt and the necessity of seizing an opportunity. He highlights his internal battle, with physical symptoms of anxiety like sweaty palms and weak knees symbolizing the barriers

that the ego erects in moments of high pressure. Eminem's fear of failure is evident as he grapples with the possibility of choking under pressure that reflects the intense fear of judgment and self-criticism. However, the chorus acts as a mantra for overcoming these challenges that emphasizes the importance of losing oneself in the moment, free from the constraints of ego. This "losing oneself" is not just about performance; it is about transcending the fear and doubt that hold one back. The repeated line "You better lose yourself in the music" signals the idea of full immersion in the task at hand, a state where the individual becomes one with their actions, unburdened by external judgments or internal fears. Eminem's depiction of this process matches with the concept of "letting go", where achieving the loss of ego is crucial for complete immersion and success. We see that by abandoning these fears and self-imposed limits can one seize the moment and achieve greatness. This refers to the idea that to truly excel, one must let go of the ego and fully engage with the present, allowing oneself to be entirely consumed by the task at hand. Can we lose ourselves while thinking critically? I am sure many people had the experience of losing themselves when they are deeply reflecting on something that they deeply care about.

In the realm of thinking, flow manifests when individuals lose themselves in complex but rewarding mental activities. For example, a philosopher deeply engaged in dissecting a challenging argument may experience flow as their thoughts unfold organically, each insight building on the last without conscious effort. Similarly, a writer crafting an intricate narrative might find themselves fully absorbed, their ideas materializing in a natural and unbroken stream. These moments of flow exemplify the improvisatory nature of thinking, where the thinker navigates between structured analysis and spontaneous creativity. Flow is particularly evident in creative problem-solving, where improvisation plays a vital role in bridging structured approaches with intuitive exploration. Csikszentmihalyi's work highlights how flow enables individuals to integrate their knowledge and skills dynamically, responding flexibly to new challenges. For instance, a software developer debugging a complex program may initially adopt a systematic, analytical approach resembling Ryle's tram-like thinking. However, as they immerse themselves in the task, they might transition into a state of flow, where intuition and experimentation guide their problem-solving. In this state, connections that previously seemed elusive become apparent. That allows the developer to innovate and resolve issues effectively. A similar dynamic unfolds in mathematics, where solving a proof often involves moments of insight that transcend deliberate reasoning. A mathematician wrestling with a particularly stubborn problem may experience flow when their cognitive processes shift from methodical

deduction to an improvisatory mode, where ideas connect spontaneously in response to the inherent logic of the problem. This transition exemplifies how flow facilitates improvisation that enables individuals to move beyond rigid frameworks and discover novel solutions. In these scenarios, flow is not simply a byproduct of expertise but a mechanism that enhances cognitive adaptability and creativity. As Jack Kerouac (2014, pp.208) observes, the rhythmic nature of flow provides a structure that guides the thinker's engagement, allowing ideas to emerge in a fluid and intuitive manner. This rhythm mirrors the dynamic interplay of external stimuli and internal resources described by Matteucci's resonance (2021, pp.39) that signals how improvisation sustains intellectual movement.

6.1.3 Hope and Intellectual Courage

Imagine you are about to give a talk, and you are prepared for it. You hope that it will go as planned. As you are giving the talk as planned, something that is relevant and might be useful popped up to your mind. And in that moment, you decide to add that to your speech. To decide that and believe that it is going to be good, you again need hope. If you do not hope that it will turn out well when you add that extra bit, you would not decide to add that and would probably ignore it.

William Parker argues that that is how musicians end up with good songs and compositions (2014, pp.425). They hope that if they add that bit they just thought of, the piece will be better. Of course, you need some evidence to hope. You need past experiences that justify your hope. However, hope is something that can even shine in the absence of evidence or experience. That is a stronger hope, even some may call it a fool's hope. It is stronger because it is a kind of hope that one has even when the circumstances seem hopeless. I have been recently following someone on Instagram who shares his daily routine from the warzone Gaza. He is trying to work out every day and tries to find places to do it amongst the wreckage of a destroyed city. Every day, he believes that he will find food and space to work out while bombs are dropping near him. For some, this might be fools' hope, but for some, this is a stronger hope.

Now let me share a poem by William Parker about hope to better describe it. He shares this poem in his section on hope and improvisation. (2014, pp.449):

What is hope?
It is the ability to forgive
The ability to grow

The ability to know and see the unknown
To believe in what we can’t see
To trust our feelings
Hope never doubts the music
Like flowers in the snow
Like a lake in the middle of the desert
Hope is having compassion for those who hate us.
Hope is idealism over practicality
Not once but every time
Hope is seeing the sky in-between all the tall buildings on a Sunday evening

We can see here that the verses present hope as a deeply creative and almost improvisational force, one that requires a leap into the unknown. Hope is like seeing hidden beauty such as flowers in snow or a lake in the desert. It reflects the spontaneity of improvisation, where action is guided by faith rather than certainty. In both hope and improvisation, there is a belief in potential, a trust in one's instincts, and an openness to possibilities that are not yet visible. Improvisation relies on the moment, just as hope relies on a vision of a better future. Both require the courage to move forward without a clear path, creating something meaningful from what could seem like nothing. The connection between hope and improvisation is further emphasized by the idea that hope "never doubts the music," suggesting that even in unpredictable or challenging times, there's a trust in the process, much like a musician trusts their instincts during improvisation. This relationship underscores that both hope, and improvisation are essential for growth, creativity, and resilience, allowing us to navigate uncertainty with a sense of purpose and possibility that results in creativity. Lastly, I wish to share another poem by William Parker regarding hope. (2014, pp.450):

She hopes, he hopes, they hope, we hope.
Is hope a dream? A vision or a short story
I hope one day the sad goes away
And the happiness will come and stay
I hope the lie will die
And Truth will never fade away
I hope every child gets to fly
And every bullet and every bomb turns to dust
As of

Yesterday
And every millionaire, billionaire Gangster, businessman, politician
Realizes that they are not the only people on earth
I hope they realize that humans are fragile
They are more important than making money
That success in life is no war and no imperialism
See the poetry in the living
Little Huey poet from the south Bronx

Hope sustains the belief that engaging with difficult or ambiguous problems will lead to meaningful insights. Hope is not passive optimism but an active and generative force that drives individuals to navigate uncertainty with resilience and creativity. In thinking, hope manifests as intellectual courage, the willingness to confront complexity and embrace the risks inherent in exploring new ideas. Without hope, individuals may retreat to procedural thinking, avoiding the improvisational efforts required to tackle challenging questions.

In thinking, hope supports the improvisational act by encouraging individuals to take intellectual risks and explore uncharted territory. A philosopher, for instance, might propose a bold reinterpretation of a traditional theory, trusting that their insights will contribute to the broader discourse. This act of intellectual improvisation relies on hope as a guiding force that enables the thinker to move beyond fear of failure and engage fully with the possibilities of their ideas.

6.2 The Interplay of Critical and Creative Thinking

Critical and creative thinking are often viewed as complementary but distinct. Critical thinking is typically associated with analysis, evaluation, and logical reasoning, while creative thinking is linked to originality, imagination, and innovation. However, improvisation reveals that these modes of thought are deeply intertwined. When we improvise, we use both critical and creative thinking simultaneously. Improvisation acts as the bridge between them that signals a dynamic interplay that enhances both criticality and creativity.

Improvisation challenges the binary distinction between critical and creative thinking by demonstrating their mutual dependence. Critical thinking often requires creativity to generate novel perspectives and solutions, while creative thinking relies on critical engagement to refine and validate ideas. This interdependence is evident in Matteucci's (2021, pp.39) concept of

resonance that is mentioned above. In his idea of resonance, external stimuli and internal resources interact dynamically to shape thought. Improvisation allows these interactions to unfold and enables a more holistic kind of cognition. For example, consider the act of designing a new product. A designer must critically evaluate market trends, user needs, and technical constraints while creatively envisioning innovative solutions. Improvisation enables them to integrate these processes, adapting their approach as new challenges and opportunities arise. The designer's ability to pivot between critical analysis and creative exploration exemplifies the interplay of these cognitive modes.

Critical thinking involves engaging with complex problems and evaluating arguments, sometimes in unpredictable contexts. Improvisation enhances this process by enabling thinkers to respond dynamically to new information and perspectives. Ryle's (1981) distinction between tram-like and bus-like thinking is particularly relevant here. While tram-like thinking involves following pre-determined rules or procedures, critical thinking often requires the flexibility and adaptability of bus-like thinking, which improvisation provides. However, such improvisation is most effective when built on a solid foundation of well-practiced skills. Through repeated practice and experience, critical thinking habits become deeply ingrained, allowing thinkers to apply them more fluidly and creatively. For instance, a lawyer presenting a case in court must critically analyse the evidence, anticipate counterarguments, and adapt their strategy based on the judge's and jury's reactions. Their ability to improvise successfully depends not only on adaptability but also on years of training that have internalised core argumentative and analytical techniques. By blending critical evaluation with practiced skill and on-the-spot adaptability, the lawyer exemplifies how improvisation and deep familiarity with critical thinking processes work together to navigate complex situations effectively.

Improvisation also enhances critical thinking by encouraging diverse perspectives. Valgenti's (2021, pp.68) notion of improvisation as a formative process demonstrates how critical engagement involves re-forming existing ideas to uncover new possibilities. For instance, a philosopher analysing a moral dilemma might improvise by considering alternative ethical frameworks that might challenge their own assumptions to develop a better argument. This process of re-evaluation and adaptation emphasizes the improvisational nature of critical thought. Creative thinking is often associated with generating original ideas, but its effectiveness depends on critical engagement. Improvisation facilitates this integration by enabling thinkers to evaluate and refine their creative outputs in real time. Csikszentmihalyi's (2014, pp.152) concept of flow is particularly relevant here, as it illustrates how critical and

creative processes can merge in a state of immersive engagement. For example, a novelist drafting a manuscript may begin with a burst of creative inspiration but must critically assess their work to ensure coherence and impact. Improvisation allows them to alternate between these modes by refining their narrative structure while exploring new ideas. This iterative process demonstrates how critical thinking enhances creativity.

In artistic contexts, the interplay of critical and creative thinking is especially evident. A choreographer developing a dance routine must imagine innovative movements while critically evaluating their feasibility and emotional impact. Improvisation enables them to test and refine their ideas in the moment by balancing spontaneity with deliberate judgment. This dynamic interplay ensures that the final performance is both original and compelling. Emotions and imagination play a central role in bridging critical and creative thinking. As discussed in Chapter 4, emotions enrich both modes of thought by providing, emotional engagement, and a deeper understanding of context. Improvisation integrates these emotional dimensions which enables thinkers to connect with their subject matter on an intuitive level.

Imagination, similarly, enhances both critical and creative processes by enabling thinkers to envision alternative perspectives and possibilities. For instance, a scientist developing a new hypothesis must imagine how different variables might interact while critically assessing the plausibility of their predictions. The integration of emotions and imagination is particularly evident in storytelling. A screenwriter crafting a film must empathize with their characters while imagining how the audience will respond to the narrative. Improvisation allows them to use these elements together. This will help the writer to create a story that resonates both emotionally and intellectually. This holistic approach signals the interconnectedness of critical and creative thinking. This also demonstrates how improvisation unifies these modes of cognition.

The interplay of critical and creative thinking is not limited to individual cognition; it also extends to collaborative processes. Improvisation provides collective intelligence by enabling groups to integrate diverse perspectives. This dynamic is evident in team-based problem-solving, artistic collaborations, and organizational decision-making. Consider a corporate innovation team brainstorming ideas for a new product. Each team member brings their unique expertise and insights that contributes to a shared pool of ideas. Through improvisation, the team critically evaluates these ideas while building on one another’s contributions that refines and combines them into a coherent strategy. This collaborative process exemplifies how

improvisation integrates critical and creative thinking to achieve collective creation. In artistic collaborations, such as jazz ensembles or theatre troupes, improvisation plays a similar role. Musicians in a jazz group must listen to and respond to one another's performances, creating a cohesive and dynamic piece of music. This requires both critical awareness of the group's overall sound and creative spontaneity to contribute new ideas. Improvisation thus facilitates a balance between individual expression and collective coherence that demonstrates its power to unify critical and creative processes in collaborative contexts.

This brings the mind improvisation's holistic nature. It is particularly evident in improvisation's ability to integrate multiple dimensions of cognition. For instance, a musician improvising a jazz solo embodies this multi-dimensionality. They must be attuned to the harmonic structure of the piece (reason), respond emotionally to the mood of the performance (emotion), and imagine new melodies and rhythms in real time (imagination). This synthesis enables the musician to create something unique and expressive, demonstrating how improvisation integrates diverse cognitive elements into a cohesive whole. Similarly, in philosophical inquiry, emotions and imagination play a critical role. A philosopher exploring ethical dilemmas must empathize with the perspectives of others while imagining the broader consequences of different actions. This engagement enriches their analysis that allows them to have a better understanding of human experience.

In other contexts, this process is equally transformative. Consider an urban planner designing a sustainable city. They must analyse data on population density, traffic patterns, and environmental impact (reason), empathize with the needs and experiences of residents (emotion), and envision innovative solutions that balance these factors (imagination). Improvisation allows the planner to navigate these complex variables that adapts their approach as new information and challenges emerge. Improvisation also aligns with theories of embodied cognition, which emphasize the role of the body and environment in shaping thought. As Philipa Rothfield (2021, pp.105) argues, improvisation is not confined to the mind; it is a force that emerges from the interaction between the individual and their surroundings. This perspective demonstrates the importance of physicality, context, and sensory engagement in the improvisational process. For example, a dancer improvising a routine relies on the physical sensations of movement, the spatial dynamics of the stage, and the emotional energy of the music. These embodied factors influence their choices that creates a feedback loop between their internal state and the external environment. In Rothfield's words: "Dance improvisation is thus entirely enunciated within the field of corporeal formation. Each moment of corporeal

formation, and there will be many, is said to be consequent upon one element working other elements towards a corporeal conclusion." (2021, pp.107). Similarly, in thinking, physical and contextual elements, such as body posture, sensory stimuli, and environmental cues, can shape the flow and direction of ideas.

In summary, improvisation's holistic integration of thinking transforms how individuals and groups approach challenges. By dissolving the boundaries between cognitive domains, it enables a flexible and responsive mindset. Through the interplay of critical and creative thinking, improvisation allows for deeper engagement with complexity and uncertainty.

6.3 Challenges and Limitations of Improvisation in Thinking

While improvisation plays a foundational role in thinking, creativity, and critical engagement, it is not without its challenges. Understanding these constraints is important for developing a balanced perspective on improvisation as a dynamic synthesis of thinking.

One significant challenge of improvisation in thinking is the risk of overreliance on spontaneity, which can lead to inconsistency or lack of coherence. Improvisation thrives in contexts that allow for flexibility and adaptability, but in tasks requiring high precision or strict adherence to established protocols, reliance on improvisation may be counterproductive. For instance, in medical surgery or air traffic control, where accuracy and predictability are paramount, improvisation must be tightly regulated. Surgeons performing a complex operation rely on procedural knowledge to minimize risks, and while they may improvise when faced with unexpected complications, the scope of improvisation is constrained by the need for consistency and safety. Overreliance on improvisation in such contexts could result in errors. Similarly, in philosophical or scientific debates, improvisation can sometimes lead to fragmented arguments or tangential explorations. While spontaneity can generate novel insights, it may also divert focus from the central issue.

Improvisation's effectiveness often depends on the thinker's level of preparation and expertise. Without a solid foundation of skills and knowledge, improvisation risks becoming aimless or superficial. This limitation is evident in artistic contexts where novice musicians or actors may struggle to improvise effectively without mastering basic techniques. In thinking, this preparation includes familiarity with relevant concepts, analytical tools, and frameworks. For example, a chess player's ability to improvise depends on their understanding of strategies and patterns developed through practice. Without this foundation, their improvisational moves may

lack coherence and effectiveness, reducing their ability to respond to their opponent's tactics. In other words, improvisation might not be effective if one lacks the necessary expertise and knowledge.

Improvisation demands a high degree of cognitive and emotional engagement which can be taxing, especially in high-stakes or prolonged situations. The need to balance multiple variables, such as environmental cues, internal responses, and external constraints, can lead to cognitive overload that diminishes the thinker's capacity for effective decision-making. This challenge may occur in situations requiring rapid improvisation under pressure, such as disaster response or military strategy. Emergency responders, for instance, must make split-second decisions based on incomplete information. While their training provides a foundation for these decisions, the intense cognitive demands of improvisation in such contexts can lead to errors or burnout. Emotional factors further complicate improvisation. For instance, a debater facing a hostile audience may struggle to let go of their fear of judgment, hindering their ability to improvise effectively.

Improvisation in thinking also raises ethical and cultural questions. Improvisational decisions, particularly in high-stakes or collaborative contexts, can have unintended consequences, requiring careful consideration of their ethical implications. For example, a leader improvising a response to a crisis may inadvertently prioritize short-term solutions over long-term sustainability. This may potentially exacerbate the problem. Cultural factors further complicate improvisation. In some cultures, spontaneity and deviation from norms may be celebrated, while in others, they may be viewed as disrespectful or unprofessional. These cultural differences can influence how improvisation is perceived and practiced, shaping its role in thinking and decision-making. For example, in the Turkish culture where I come from, being able to act spontaneously in most situations is rewarded and considered to be a good skill. However, in another culture being planned might be more rewarded.

A central paradox of improvisation lies in its simultaneous reliance on structure and spontaneity. While improvisation thrives on flexibility and unpredictability, it also depends on a foundation of preparation, knowledge, and contextual awareness. This paradox can create tension, as thinkers must navigate the fine line between adhering to established frameworks and embracing creative freedom. For instance, in academic writing, improvisation plays a vital role in generating original ideas and connecting diverse concepts. However, this spontaneity must be balanced with adherence to disciplinary conventions. It needs to be ensured that the work is

both innovative and methodologically rigorous. Striking this balance requires careful negotiation between the constraints of structure and the possibilities of improvisation.

Improvisation's emphasis on spontaneity and adaptability can sometimes be misinterpreted as a lack of rigor or discipline. This perception can diminish its value, particularly in contexts that prioritize order and predictability. For example, in education, improvisational teaching methods may be dismissed as unstructured or unprofessional, despite their potential to provide deeper engagement and creativity among students. Additionally, improvisation can be misused to justify poor preparation or lack of accountability. In professional contexts, relying excessively on improvisation without adequate planning or expertise can lead to suboptimal outcomes that may erode trust and credibility. Addressing these misconceptions requires a better understanding of improvisation's role and its relationship to preparation and structure.

Conclusion

In this chapter, I have argued that improvisation serves as a key mechanism of thinking, integrating critical and creative faculties into a dynamic process. To support this claim, I explored key experiential states associated with improvisation: flow, letting go, and hope. I demonstrated how these elements contribute to a flexible and responsive mode of reasoning. These discussions provided the necessary groundwork for my central argument, that is, to establish improvisation as not only a method of thought but a process of thinking.

I further demonstrated how critical and creative thinking are deeply intertwined through the lens of improvisation. Rather than existing as separate or even opposing modes of cognition, these faculties enhance and reinforce one another, making thinking both more rigorous and more adaptable. Improvisation exemplifies this synthesis because of its holistic nature that includes emotions, imagination and feelings into the thinking processes.

Within the broader scope of this thesis, this chapter plays a role in bringing together the themes explored throughout the previous discussions. It serves as both a theoretical culmination and a practical demonstration of the thesis's central claim: that critical thinking, when expanded, can be enriched by aesthetic and creative dimensions. Just as earlier chapters explored the aesthetic dimensions of critical thinking, this chapter shows how improvisation embodies a mode of thinking that integrates logic, emotion, and imagination into a cohesive and holistic process.

Improvisation emphasizes the emancipatory potential of aesthetics in thought that reveals how a more inclusive and dynamic approach to reasoning can both enhanced criticality and creativity. As such, this chapter does not merely close a discussion but opens new pathways for considering how we might cultivate thinking that is both rigorous and creatively responsive to the challenges we face.

Conclusion

This thesis has argued that critical thinking is not only about logical analysis or the evaluation of arguments but also about creativity and the use of the full range of human mental capacities. It has shown that critical thinking involves not just reason but also imagination, emotion, and perception. It is not a purely technical skill or formal procedure. It is a deeply human activity that engages the whole mind.

The main achievement of this thesis is to expand the concept of critical thinking beyond the traditional frameworks found in standard models. By drawing on philosophy and aesthetics, it develops a more comprehensive understanding of critical thinking as a creative, emotional, and aesthetic practice. The thesis not only reinterprets critical thinking but reconstructs it as an improvisational process that integrates logical, imaginative, emotional, and aesthetic dimensions of thought.

Chapter 1 demonstrated that most traditional critical thinking models, especially those used in teaching, tend to neglect imagination and treat emotions merely as sources of bias or error. Chapter 2 then considered alternative frameworks such as Sharon Bailin and Mark Battersby's inquiry model and Michael Gilbert's multi-modal framework. Both of these approaches mark important progress because they recognize that reasoning is contextual and not limited to formal logic. However, as Chapter 2 revealed, they stop short of fully integrating the creative and imaginative dimensions of thought. They focus on expanding the scope of reasoning, but they don't refer to emotions and imagination as positive capacities. The remaining gap, therefore, concerned how to conceptualize and model critical thinking processes that includes reason, emotion, and imagination.

This gap is what the subsequent chapters addressed. Chapter 3 provided the conceptual groundwork for integrating propositional and non-propositional forms of representation, establishing a dual foundation for understanding reasoning as both analytic and expressive. Chapter 4 deepened this view by showing how imagination, emotion, and aesthetic attitude function not as distractions from critical thinking but as conditions that make reflective judgment possible. Chapter 5 applied this framework to philosophical inquiry. This

demonstrated that philosophical beauty, understood as the harmony of reason, imagination, and emotion, is not a peripheral notion but central to how philosophy advances understanding.

Chapter 6 synthesized these insights by introducing improvisation as the model that completes what Bailin, Battersby, and Gilbert began. Improvisation goes beyond their frameworks by offering a dynamic account of reasoning as a creative process of making meaning in real time. It shows how the logical, emotional, and imaginative dimensions of thought can interact fluidly, not as separate domains but as mutually constitutive aspects of human intelligence. Where Gilbert added plural modes of argument and Bailin and Battersby emphasized contextual inquiry, improvisation brings these strands together into a unified and generative model of critical thinking. It bridges the analytical and the aesthetic, demonstrating that to think critically is also to create.

The broader achievement of this thesis is to enhance critical thinking as a holistic intellectual practice that shows the complexity of human cognition. Rather than treating imagination and emotion as secondary to reason, it positions them as integral to how reasoning unfolds. By doing so, it opens new directions for both theory and pedagogy. These new directions suggest that critical thinking, when enriched through aesthetic and improvisational perspectives, can cultivate more creative and critical reasoning processes.

The central conclusion is that critical thinking achieves its fullest expression when it becomes an improvisational act, one that draws on reason, imagination, emotion, and aesthetic sensibility in concert. Only by engaging the whole mind can critical thinking realize its potential as both a rigorous and profoundly creative form of human understanding.

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Appendix

Table 1: Critical Thinking Textbooks List

Author(s)	Title	Date	Edition	Key Words
Theodore Schick, JR. - Lewis Vaughn	How to Think About Weird Things: Critical Thinking For a New Age	2005	4	**Creative Thinking**: Seen as positive and valuable. **Imagination and Senses**: Treated negatively, seen as unreliable. **Perceptual Construction**: Viewed as dangerous and distorting. **Memory**: Considered both helpful and risky due to bias. **Intuition vs. Math Evidence**: Intuition seen as less reliable than math. **Personal Experience**: Criticized as misleading and delusional.
Alec Fisher - Michael Scriven	Critical Thinking: Its Definition and Assessment	1997	1	**Creative Writing**: Compared to critical thinking. **Strong Emotions**: Negatively affect observation. **Critical Thinking**: Involves some creative thinking. **Critical and Creative Thinking**: Their connection is emphasized. **Standard-Based Definition**: Critical thinking defined rigidly. **Emotions**: Seen as part of the person, not the thinking process.
Bruce N. Waller	Critical Thinking: Consider the Verdict	1998	3	No mention of keywords
Vincent Ryan Ruggiero	The Art of Thinking: A Guide to Critical and Creative Thought	2007	8	**Imagining**: A form of thinking. **Expressions**: Includes images, sounds, and more, not just words. **Creativity and Imagination**: Key to the production phase of thinking. **Thoughts and Feelings**: Should work harmoniously, not separately. **Focus and Research**: Linked to emotions and intuition. **Critical and Creative Thinking**: Their dependency is emphasized. **Creativity**: Tied to playfulness. **Curiosity**: Drives thinking; lack of it hinders progress. **Expressions**: Variety benefits thinking. **Imagination**: Needs stimulation.

Brooke Noel Moore - Richard Parker	Critical Thinking	2008	9	**Feelings**: Acknowledged but not fully addressed. **Aesthetic Reasoning**: Explored as part of thinking. **Aesthetic Principles**: Eight principles beneficial for critical thinking. **Emotive Force**: Guides and directs attention.
J. Anthony Blair (ed)	Studies in Critical Thinking	1997		**Critico-Creative Thinking**: Combines critical and creative approaches. **Imagination and Creativity**: Essential for critical thinking but distinct from literary or poetic creativity.
Matthew Allen	Smart Thinking: Skills for Critical Understanding and Writing	2004	2	No mention of keywords. Analytical structure of thinking is emphasized.
Stewart E. Kelly	Thinking Well: An Introduction to Critical Thinking	2001	1	**Emotions**: Seen as barriers to thinking. **Sense Perception**: Considered unreliable.
Stephen S. Carey	The Uses and Abuses of Argument: Critical Thinking and Fallacious Reasoning	2000	1	**Emotions**: Seen as subject to manipulation. **Reason and Emotions**: Traditional distinctions upheld. **Emotions**: Their moral benefits are highlighted.
Greg Bassham, William Irwin, Henry Nardone, James M. Wallace	Critical Thinking: A Student's Introduction	2002	1	**Emotional Manipulation**: Explored in communication. **Emotional Power**: Highlighted in the impact of words.
Steven P. Lee	What Is the Argument?: Critical Thinking in the Real World	2002	1	**Key Words**: Not mentioned. **Everyday Critical Thinking**: Linked to manipulative multi-sensory arguments.
Trudy Govier	A Practical Study of Argument	2009	7	**Emotions**: Portrayed as distracting and dangerous for critical thinking.
M. Neil Browne, Stuart M. Keeley	Asking The Right Questions: A Guide to Critical Thinking	2007	8	**Emotions**: Seen as needing to be silenced and set aside.
Merrilee H. Salmon	Introduction to Logic and Critical Thinking	2013	6	**Emotive Forces**: Highlighted as something to approach with caution.
Jerry Cederblom, David W. Paulsen	Critical Reasoning	2001	5	**Emotional Fallacies**: Generally misleading but occasionally beneficial.
Richard L. Epstein	Five Ways of Sayin "Therefore"	2002	1	**Keywords**: Not mentioned. **Analytical Thinking**: Structure is emphasized.
Stella Cottrell	Critical Thinking Skills: Effective analysis, argument and reflection	2005	1	**Emotions**: Generally seen as barriers to critical thinking.
Stuart Hanscomb	Critical Thinking: The Basics	2017	1	**Emotions**: Not inherently irrational, but their inappropriate attachments are. **Heuristic and Valuable**: Often heuristic but also valuable. **Attention**: Important for focus in critical thinking.
Bruce. R. Reichenbach	Introduction to Critical Thinking	2001	1	**Emotive Force**: Seen as something to approach cautiously. **Creative Thinking**: Crucial for problem-solving in critical thinking.
Richard L. Epstein	Critical Thinking	1999	1	**Excessive Emotion**: Acts as a barrier to critical thinking. **Emotion Usage**: Appropriate and inappropriate mentioned, but no examples of appropriate use.

Joe Y. F. Lau	An Introduction to Critical Thinking and Creativity	2011	1	**Inappropriate Emotional Connotation**: Seen as a barrier to reasoning. **Emotions**: Viewed as obstacles in logical processes. **Emotional Abuse of Words**: Highlighted as a concern. **Imagination and Creativity**: Their importance is extensively emphasized. **Creativity**: The process is explained in detail.
Merrilee H. Salmon	Introduction to Logic and Critical Thinking 1	2013	6	**Emotions**: Described as fallacies and nonrational aspects of human life.

Table 2: Formal Logic Books

Author(s)	Title	Date	Edition	Key Words
Patrick J. Hurley	A Concise Introduction to Logic	2000	7	**Emotive Language**: Disengaged due to its value-laden nature.
Frances Howard- Snyder, Daniel Howard-Snyder, Ryan Wasserman	The Power of Logic	2009	4	**Emotive Force vs. Cognitive Meaning**: Differentiated in their roles. **Emotional Statements**: Seen as interfering with logical insights.
Irving M. Copi	Introduction to Logic	1978	5	**Emotive Force**: Contrasted with cognitive meaning. **Emotional Statements**: Viewed as disruptive to logical insights.
Harry J. Gensler	Introduction to Logic	2011	2	**Emotive Force vs. Cognitive Meaning**: Differentiated in reasoning. **Emotional Statements**: Disrupt logical insights and clear reasoning. **Emotional Language**: Should be avoided to maintain clarity in reasoning.
Siu-Fan Lee	Logic: A Complete Introduction1	2017	1	**Emotive Force vs. Cognitive Meaning**: Differentiated in reasoning.

				Emotional Statements: Disrupt logical insights. **Appeal to Emotion**: Highlighted as a rhetorical technique.

Table 3: Nursing, Business and Psychology Critical Thinking Books

Author(s)	Title	Date	Edition	Key Words
Jane Bottomley, Steven Pryjmachuk	Critical Thinking Skills for your Nursing Degree	2018	1	**Reflection**: Focuses on how you feel and think. **Gibbs' Reflective Cycle**: Explores what you were thinking and feeling and encourages careful observation of emotions. **Johns' Model**: Emphasizes interpreting others' feelings, understanding emotions, and reflecting on changes in your own feelings. **Emotions and Reactions**: Involves describing and explaining feelings and responses.
Eileen Gambrill	Critical Thinking in Clinical Practice: Improving the Quality of Judgements and Decisions	2012	3	**Intuition**: Treated as something to approach with caution. **Intellectual Virtues**: Empathy and humility are emphasized. **Perceptual Errors**: Highlighted as a concern. **Emotion Management**: Learning to manage emotions is important. **Feelings and Judgments**: Recognized as influential and requiring caution.
Sandra Luz Martinez de Castillo	Strategies, techniques, approaches to critical thinking: A clinical reasoning workbook for nurses	2014	5	**Nursing Staff**: Focus on their feelings about changes.
Stephanie McKendry	Critical Thinking Skills for Healthcare	2016	1	**Emotions**: Question and reflect on them. **Emotional Reactions**: Avoid reacting emotionally or manipulating emotions. **Creativity**: Linked to being an autonomous thinker.

Tine Nielsen	Critical Thinking of psychology students: A within-and cross- cultural study using Rasch models	2021	1	**Creative Thinking**: Emphasized as a key aspect.
Burke, Sears, Kraus, and Roberts-Candy	Critical Analysis: A Comparison of Critical Thinking Changes in Psychology and Philosophy Classes	2014	1	**Intuition and Emotion**: Considered sources of error. **Creative Thinking**: Recognized as part of critical thinking (APA, 2007)
Craig Newnes and Laura Golding	Teaching Critical Psychology: International Perspectives	2018	1	**Emotions**: Students are encouraged to reflect on their emotions. **Psycho-Emotional Effects**: Addressed in the learning process. **Emotional Challenges**: Highlighted as barriers to learning. **Emotional Health**: Promoted to support mental health and well-being. **Emotional Coaching**: Linked to students' emotional well-being. **Art and Culture**: Used to enhance emotional well-being. **Imagination**: Explored through subjective possibility spaces, awakening and inspiring creativity. **Creative Thinking**: Mentioned briefly.
John Ruscio	Critical Thinking in Psychology: Separating sense from nonsense	2005	2	**Emotional Reaction**: Seen as something to approach with caution. **Emotional Appeal**: Highlighted as a concern. **Emotional Distance**: Recognized as beneficial for critical thinking. **Emotionally Compelling**: Treated with caution. **Personal Experiences**: Relying on emotions derived from them is viewed as erroneous. **Emotions**: Seen as beyond control, manipulative, and even influential on the immune system.

				Emotional Strain: Acknowledged as a factor. **Imagination**: Linked to the placebo effect; active imagination can lead to false beliefs. **Mental Imagery**: Has potential downsides. **Creative Imagination**: Susceptible to false memory creation. **Creative Thought**: Associated with open-mindedness and alternative thinking.
Edward S. Inch and Kristen H.Tudor	Critical Thinking and Communication: The Use of Reason in Argument	2015	7	**Emotional Statements**: Not considered arguments. **Emotions**: Influence how arguments are understood and accepted. **Emotionally Loaded Language**: Seen as rhetorical. **Emotions in Arguments**: Reveal underlying agendas. **Expression vs. Clarity**: Emotions can enhance expression but must not cloud reasoning. **Manipulative Emotions**: Highlighted as a concern. **Imagination and Creativity**: Briefly mentioned.
Radu Atanasiu	Critical Thinking for Managers: Structured Decision-Making and Persuasion in Business	2021	1	**Aspects of Thinking**: Intuition, emotions, and the subconscious are comprehensively recognized. **Gut Feeling**: Beneficial in domain-specific managerial decisions, with rationalization. **Reason and Emotions**: Viewed as cooperating subsystems in decision-making. **Reason and Intuition**: Interconnected and mutually informative, not oppositional.