Individual and Society in *San Manuel Bueno, Mártir*, *Il Barone Rampante* and *La Peste*. A Cognitive Approach.

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Abstract

In this thesis I will investigate the relationship between individual and society in three novels by Miguel de Unamuno, Italo Calvino, and Albert Camus. I will do so using a cognitive approach to literature. My point of departure will be Georg Lukács and Franco Moretti's accounts of the novel's history. For these two, the relationship between the fictional characters and the society that surrounds them is fundamentally antagonistic. I will claim that there is a parallel to this conception in what is usually referred to as the first-generation of cognitive science. This approach to the human mind conceptualised the brain as the software of a computer, where the brain would function as the operational system which is operating autonomously from its physical parts (the body) and its surroundings. An alternative approach to the human mind, known as 4E cognition, has strongly criticized this approach. For them, the human mind is inseparable from its body and its social and physical surroundings. In my thesis, I investigate how 4E cognition, and more specifically, the enactivist approach, can contribute to an investigation of how *San Manuel Bueno, mártir*, *Il Barone rampante* and *La Peste* can be said to rethink the problematic relationship between individual and society as proposed by Lukács and Moretti. I will claim that all these books, in different ways, can be read as attempts to dissolve the strict dividing line between brain, body and surroundings. Through this, I argue that the three books suggest a new way that individuals can relate to their surroundings.

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Notes to the translations

I have chosen to include translations in the footnotes together with comments for readability. Which notes that are translations and which ones are comments will be clear from the context. The page number which follows each note refers to the translations listed in the bibliography. My own translations are marked as such.

Contents:

1. Introduction

Miguel de Unamuno, Italo Calvino, and Albert Camus all lived in troubled times. Miguel de Unamuno saw his native Spain thrown into a bloody civil war that still leaves its mark on Spanish society today, while Italo Calvino and Albert Camus were witnesses to the unprecedented destructions of the Second World War. Thus, these authors had first-hand experience of the destructive potential of human cooperation and coordination. However, even then, the positive potential for working together with others became visible. The social and economic improvements achieved during the second Spanish Republic and the many forms of resistance to the Nazi crimes were also characteristic of the times that the three authors in question lived through. As I was writing this thesis, Camus' *La Peste* suddenly became very relevant today as we had our own 'plague' in the form of the Covid-19 virus. In the situation we are currently in, the possibilities of human interaction have become very important for us all. The goal of my thesis is to examine how *San Manuel Bueno, mártir* by Miguel de Unamuno, *Il Barone rampante* by Italo Calvino, and *La Peste* by Albert Camus all revolve around the relationship between the individual and society, and, although less so with *San Manuel Bueno, mártir*, how all these novels explore the *positive* aspects of this interaction.

These novels are written within a period of about thirty years; the first, *San Manuel Bueno, mártir*, was published in 1930, *La Peste* in 1947, and *Il Barone rampante* in 1957. In this thesis, I will anchor my discussion in literary and scientific history. The focus will therefore not lie on the historical and cultural context which these authors share, nor will there be space to explore the direct philosophical or literary connections between them[1]. Instead, I will position these novels in an account of the history of the novel where the individual is considered to be in constant struggle with society, as proposed by Georg Lukács and Franco Moretti. I will then argue that this antagonistic view has a sort of cognitive flipside in the science of the mind. In the so-called first generation of cognitive science, the brain is strongly

[1] The most obvious one would be the link between existentialist philosophy and the three novels in question. All authors had a close relationship with existentialism. Camus and Unamuno are seen as closely connected to existentialist thought in their philosophical as well as fictional writing, although both remain on the fringes of the philosophical canon of existentialism. Italo Calvino, although less so than Camus and Unamuno, also retains a strong bond with this strain of thought (see Markey 1983). Interestingly, there are also some connections between existentialism and enactivism. Most obviously with Merleau-Ponty, which was very close to some of the most central existentialist thinkers such as Sartre and De Beauvoir and who is also seen as one of the most important forerunners to an enactivist conception of the mind. Another interesting link is the similarities between Jean-Paul Sartre's account of literature from 1947, *Qu'est-ce que la littérature?* and Yanna Popova's enactivist account of literature from 2015 *Stories, Meaning, and Experience. Narrativity and Enaction*.

separated from its surroundings. According to this view, the brain functions as a computer. It processes the data coming in from the world and from this data, it produces behaviour. Thus, the brain would be the centre of human thinking, and safely separated from the physical world by the barrier of the skull. In other words, both Lukács and Moretti on one hand, and the first generation of cognitive sciences on the other, see the individual, or brain, as clearly delineated from its surroundings. This parallel between the history of the novel and the sciences of the mind will function as a framework to rethink the place of the novels of Unamuno, Calvino and Camus in literary history and to see how they establish an alternative to Lukács and Moretti's account of the relationship between individual and society.

My goal with this thesis is to see how Unamuno, Calvino and Camus' books explore and question this strict dividing line between the world and the individual. My analysis of *San Manuel Bueno, mártir* will serve as an opening example of how literature can throw light on the human dimension that goes beyond the strictly individual and how the perspective from the cognitive sciences can help us understand this. Starting from this framework, I will then proceed to investigate how *Il Barone rampante* and *La Peste* explore different solutions as to how individuals can gain a more balanced and positive relationship to their surroundings.

I will do this by investigating these novels through the perspective of the so-called second-generation approach to the study of the human mind (Lakoff and Johnson 1999: 77-78). In contrast to the first, the second generation disagrees strongly with the brain-centred view of human cognition and sees the human mind as intrinsically dependent on its environment and the body. Although there is a considerable diversity within this label, Karin Kukkonen and Marco Caracciolo point out that

> [a]t the same time, second-generation approaches also show some remarkable continuities: they converge on a view of the human mind as shaped by our evolutionary history, bodily make-up, and sensorimotor possibilities, and as arising out of close dialogue with other minds, in intersubjective interactions and cultural practices (Kukkonen and Caracciolo 2014: 261-262)

The human mind cannot be seen as limited only to the brain. Human cognition is fundamentally dependent on its environment, taking advantage of the possibilities that our embodied interactions with the world as well as that of other minds offer.

Today, the second generation is often referred to as 4E cognition: embedded, extended, embodied and enactive. In what follows, I will focus (without limiting myself exclusively) on the last of the e's mentioned, that is, the enactive view of the mind. I will enter more in detail regarding enactivism throughout this thesis. However, in short, this

approach sees human cognition as an always *lived* experience. How we perceive and act in the world is determined by our embodied experience and always coupled to our social and physical surroundings. Thus, our most fundamental cognitive function is to make sense of our worlds from a perspective as embodied and social beings. Thinking, then, does not exclusively happen in the brain. Rather, thinking happens in the space between brain, body and the world. Thus, we do not perceive a pre-formed world, we *enact* it.

Recently, cognitive literature studies have worked through some of the implications of an enactive approach to literature. In her *Stories, Meaning, and Experience. Narrativity and Enaction*, Yanna B. Popova proposes a conception of literature that is anchored in an enactivist framework (see Caracciolo 2017 for another recent enactive approach to literature). Popova uses the notion of 'participatory sense-making' as coined by Di Paulo and De Jaegher in a 2007 article to understand the interaction between the reader and the narrator. I will examine De Jaegher and Di Paulo's notion more in detail later, as this concept will also be central to my analysis of *La Peste*. As for Popova, following enactivism's conception of human existence as a lived experience, one of her main points is that all that takes place in the fictional world is always told through the narrator's perspective, and thus the way this world is described is just as important as what actually happens. Thus, literature functions as an interaction between the perspective of the narrator and the reader who re-enacts this perspective:

> [A] reader does not just enact narrative events and experiences but events and experiences already filtered through somebody else's consciousness. Achieving this, most of the time, depends on the assumption that another consciousness has imposed a casual frame on a set of related experiences. Understanding narrative involves, then, enacting the experiences of characters (that is the content of the story), but equally, and perhaps even more importantly, enacting the reasons for those experiences to be the way they are (Popova 2015: 124)

In Popova's account, the reader is not so much trying to understand the workings of the fictional characters, but rather why the narrator perceives and understands the fictional world the way he does.

Popova's conception of literature provides the general enactivist framework within which I will discuss my three exemplary novels. All of them have a first-person narrator who plays a more or less important role in the narrative itself. I have proposed that these novels explore the question of the relationship between the individual and society. To understand how these novels differ from traditional approaches to this question, we must then understand not only the main protagonists, but also how the narrators perceive the fictional world. This is

not to say that the characters are not important. In all novels the fictional characters will play an important role in embodying an enactive take on the world. The point is rather that, given that according to enactivism, we enact the world, it is the narrators that enact the fictional world for the reader. The three narrators, Angela, Biagio and Rieux, all highlight certain aspects of the world through their narrational strategies which in turn serve to explain the events that take place.

Especially in my analysis of the last two novels, *Il Barone rampante* and *La Peste*, a key aspect will be understanding how the fictional worlds are perceived and described by the narrator. To investigate how these descriptions are linked to cognition and enactivism, I suggest using the term 'cognitive realism', first coined within literary studies by Emily Troscianko in her *Kafka's Cognitive Realism* published in 2014. She defines this notion as follows:

> [A] text may be considered cognitively realistic in its evocation of, for example, visual perception if that evocation corresponds to the ways in which visual perception really operates in human minds and bodies, according to the best understanding available in current cognitive science[…]. Here 'to correspond' means to describe, in this case vision, in a way that can most economically be accounted for with reference to the relevant cognitive facts (Troscianko 2014: 2)

In her book, Troscianko argues that Kafka describes the fictional world in the manner human perception actually works, as according to the enactive approach to the human mind. The narrators of Kafka enact the fictional world, that is, they perceive and describe it from their embodied and cultural point of view. This she claims, can explain the effects Kafka had on his readers. Kafka's work is attractive to readers exactly because they can enact a fictional world in a similar way as they would in the real world. Yet, at the same time, they are disturbed because this enactive perception goes against the way they *thought* their perception to work (Troscianko 2014: 33). Fictional worlds that are "cognitively realistic" then, get offered to readers by the narrator in a way that is true to the most current findings in the cognitive sciences, but not in a way that rings true with folk-psychological assumptions on how the mind works. I will argue that this is the case for *Il Barone rampante* and *La Peste*.

My claim is that, long before such a knowledge was stated by cognitive science and in all probability, without the explicit awareness of the authors themselves, these novels explore the relationship between the individual and society in a cognitively realistic manner as conceived by the enactive approach to the human mind. Yet this analysis will not limit itself to simply demonstrating more life-like descriptions of cognitive mechanisms. As described by

the narrators of *Il Barone rampante* and *La Peste*, through living in accordance with how the mind is seen to work in the enactivist approach, the protagonists seem to gain a positive relationship to the people that surround them. The protagonists succeed in making sense of their worlds by understanding and enacting their existence through their physical and social surroundings and extending into their environment. Thus, in contrast with the mainstream antagonistic distinction between individuals (and their brains) and what surrounds them, they succeed in creating a positive relationship with the world around them. Further, I will speculate that this cognitive realism bears a specific effect on the readers. Through enacting the fictional worlds of Calvino and Camus, the readers get to feel some of the same cognitive mechanisms that create bonds between the protagonists and their surroundings. Thus, the readers would not only look in on the fictional world, but also experience this world in an embodied manner.

In the first chapter of this thesis I will outline the conception of the relationship between individuals and their place in society in two seminal works of literary history. Georg Lukács describes how after the Greek world, there is an "essential difference between the self and the world" (Lukács [1916] 2006: 29). In Lukács' study of the history of western literature, he shows how the novel represents this conflictual relationship. Franco Moretti follows in a similar vein as he examines the rise and fall of the modern *Bildungsroman* as an attempt to conceptualise and represent some of the major conflicts between modern society and the individual that inhabits it. I will then proceed to argue that there can be said to be a similar conception in the science of the mind. Just as Lukács and Moretti understood the modern western individual, the computational approach to the human mind, which underlies the first-generation of cognitive sciences, conceives of the brain as secluded from its surroundings, both physical and social. Contrary to these views, enactivism considers the human mind as spread out into its environment; the human mind cannot be conceived of without taking into consideration the body, as well as its physical and social surroundings. My claim will be that, seen through enactivist lenses, *San Manuel Bueno, mártir*, *Il Barone rampante* and *La Peste*, without attempting a return to the ancient Greek world, can be seen to construct an alternative vision of the individual's place in the world. In the end of this first chapter, I will attempt to show how literature can address this question. In Miguel de Unamuno's novel *San Manuel Bueno, mártir*, the narrator Angela tells the story of the atheist saint Manuel. He works ceaselessly for the good of his co-villagers and is sanctified for his services. The problem, however, is that he does not believe in God. Through Angela's story we will see how Manuel

seems to nicely represent a dualistic approach to the individual and society, and how Angela proposes a possible way out of his dilemma through the very way in which she tells her story.

In the second chapter, we meet Cosimo, Italo Calvino's 18th century baron who, after a fight with his parents at the age of twelve, escapes up in the trees and, just as he promised, stays there forever. In the trees, he constructs a life for himself. He falls in love, exchanges letters with the most famous intellectuals of his time and participates in local commerce. I argue that this novel functions as a sensorimotor *Bildungsroman*. The enactivist account sees higher forms of cognition as built upon sensorimotor interaction with the physical environment. My main claim is that Cosimo can be read as constructing a highly meaningful life, which is lived in relative harmony (although not without conflicts) with the society that surrounds him, by building exactly on his movements in the trees. By doing this, Cosimo succeeds in making sense of his world. This process, I will claim, is described by the narrator, Cosimo's younger brother Biagio, in a 'cognitively realistic' manner.

In the third and last chapter, I will go from how a single individual, the young baron Cosimo, succeeds in constructing a meaningful existence for himself in society, to see how a group of people can find meaning together. As the plague hits the Algerian town of Oran, the narrator Rieux and his co-citizens find themselves trapped, left to the ravaging of the plague. I will investigate how a process of participatory sense-making takes place, and how the inhabitants of Oran slowly form an organisation that both helps battle the plague, and also makes them capable of making sense out of the horrible events. Contrary to earlier literature on this novel, I will claim that this process largely takes place in the interaction itself and through mostly pre-conscious processes. Through coordination and participation, the citizens of Oran slowly come together, creating an interaction that takes on a life of its own. This process, as I hope to show, is also told by the narrator Rieux in a cognitively realistic manner. Through different coordinating processes as well as Rieux's descriptions, we are shown how the city turns from directionless chaos to forming an interaction which restores sense into the plague-ridden city of Oran.

2. Alone in the world? The limits of the individual and *San Manuel Bueno, mártir*

The relationship between the individual and society is a central conflict that runs like a thread through much of modern western literature. To open up my discussion, I will begin by examining how Georg Lukács and Franco Moretti, with 70 years between them, have analysed how literature addresses this relationship. I will then proceed to argue that there is a cognitive flipside to the conflictual relationship between individual and its surroundings proposed by Lukács and Moretti. I argue that the clear divide between brain and surroundings (body, physical and social environment) most famously stated by Descartes and continued by what is referred to as the computational approach to the mind, conceives of the human mind much as Lukács and Moretti conceived of the social individual. I will propose that by drawing on enactivist insights and Miguel de Unamuno's novel *San Manuel Bueno, mártir* we can begin to understand the issues at stake and how literary fiction might propose an alternative to strict dualist conceptions of mind, individual and world.

2.1 Lukács and Moretti on individual and society

San Manuel Bueno, mártir, *Il Barone rampante*, and *La Peste* all centre around how the protagonists relate themselves to their physical and social surroundings. Thus, Lukács and Moretti will provide us with a starting point which helps understand how the problematic relationship between individuals and their surroundings has been formulated in modern literature and how the novels of Unamuno, Calvino and Camus situate themselves in this tradition of thinking. Georg Lukács, an important Marxist thinker and literary scholar, published his influential *The Theory of the Novel* in 1916. In this work, Lukács analyses the modern novel in relation to the historical and political context it was created. Lukács sees the novel as an expression of the modern age, as an aesthetic form that tries to represent and address the main conflicts of its time. As his point of departure, Lukács uses the contrast between the modern individual and the ancient Greeks. In the ancient Greek world, each individual was in equilibrium with society. It was not that everyone was equal, far from it, but everyone espoused the same worldview and accepted their place in life. According to Lukács, there was no conflict between one's inner self, and the norms of society:

> The world is wide and yet it is like a home, for the fire that burns in the soul is of the same essential nature as the stars; the world and the self, the light and the fire, are

> sharply distinct, yet they never become permanent strangers to one another, for fire is the soul of all light and all fire clothes itself in light (Lukács 2006: 29)

As Lukács expresses in his characteristically poetic turns of expression, in the Greek world, everything was known, everything was expected, and everything was as it should be; the world was a home. This will change in the modern world. For there, a divide between the individuals and their world emerges, and the fire of the soul is no longer that of the stars: "We have found the only true substance within ourselves: that is why we have to place an unbridgeable chasm between cognition and action, between soul and created structure, between self and world […]" (Lukács 2006: 34). According to Lukács, the individuals have become irreversibly separated from the world that surrounds them. To give form to this change, we have the novel.

Lukács proposes two main ways that the conflictual relationship between the individual and society has been approached in literature. Firstly, there is the novel where the protagonist has a too narrow soul (Lukács 2006: 97). Such is the case when the novelistic protagonists have such a clear idea in their mind of how the world should be, that they cannot imagine it otherwise: "The narrowing of the soul of which we speak is brought about by its demonic obsession by an existing idea which it posits as the only, the most ordinary reality" (Lukács 2006: 98). Thus, the feedback from the world becomes irrelevant, as the heroes try to force their ideas onto a world that very often resists. Don Quixote and his illusions of living in the world of chivalry novels is the foremost example of this kind of hero. The Spanish knight tries to impose his chivalric ideals onto the cynical world of a poor Spanish countryside, an undertaking doomed to fail.

Then Lukács move onto the heroes who have a soul that is too wide (Lukács 2006: 112). These heroes consider their inner world infinitely more important than the actual world which can never provide the heroes with a place to unfold the greatness of their souls. They regard themselves "as the only true reality, the essence of the world: and the failure of every attempt to realise this equality is the subject of the work" (Lukács 2006: 112). In this kind of novel, the heroes no longer attempt, like Don Quixote, to force their ideals onto the world, rather, they give up before they have even tried: "[T]his self-sufficiency of the subjective self is its most desperate self-defence; it is the abandonment of any struggle to realise the soul in the outside world, a struggle which is seen *a priori* as hopeless and merely humiliating" (Lukács 2006: 114). The inner world of the protagonists is absolutely irreconcilable with the outside world. A prosaic world of normal people can never fulfil the requirements of the unique inner world of the heroes. Through the analysis of these two types of heroes, Lukács

attempts to investigate the condition of the modern individual. For Lukács, the modern novel gives literary form to the latter's alienation from the world. In Lukács' account then, the individual and society are seen as two sharply delineated entities that are engaged in a constant battle for control.

However, is it possible to bridge what Lukács called the "unbridgeable chasm" and reconcile humans with society's norms without inflicting irreparable damage to the integrity of the individual? According to Lukács, Goethe came close with *Wilhelm Meisters Lehrjahre*. In this novel, the process of finding oneself and one's position in society, is an occasion to grow, not a process of losing one-self. However, Goethe's ambitious attempt fails in the end. To show how Meister's formation into a member of society was planned out and had a clear goal from the start, Goethe introduces a secret society and thus he reveals the shortcomings of his novel: "[R]eality refuses to be forced up to such a level of meaning, and, as with all the decisive problems of great literary forms, no artist's skill is great and masterly enough to bridge the abyss" (Lukács 2006: 143). For Lukács then, all attempts at a reconciliation between the individual and society seem doomed to fail.

Seventy years later, Franco Moretti, greatly inspired by Lukács' work, sees Goethe's *Meister* as the archetypical example of the European *Bildungsroman*. For Moretti, the European novel after the French revolution is inscribed in the *Bildungsroman* tradition, a genre which, broadly defined, addresses the passage from adolescent to adult member of society. We will enter more into details about the *Bildungsroman* in the chapter on *Il Barone rampante*, for now we will only discuss it as the paradigmatic example of the modern European novel. According to Moretti, *Meister* provides a starting point for this tradition as well as an ambitious attempt at a synthesis between society's demands and the rich inner world of the modern individual. Yet, if Goethe's novel successfully integrates young Meister into society, this comes at a steep price:

> [L]a totalità simbolica del *Bildungsroman* non prevede l'atto dell'interpretazione: ammetterlo, sarebbe già riconoscere che tra il soggetto e il suo mondo continua ad esistere un'alterità, e che essa ha consolidato una sua cultura: e ciò non deve essere. Quel conflitto, quel dissidio sociale che, sul piano conoscitivo, l'atto dell'interpretazione mantiene aperto, la bella armonia del simbolo lo chiude. Il che può esser detto anche in un altro modo. Che il senso, nel *Bildungsroman*, ha un prezzo. E che questo prezzo è la libertà (Moretti 1999 [1986]: 70, author's italics)[2]

[2]The symbolic totality of the classical *Bildungsroman* does not allow for interpretation. To do so would be to recognize that an alterity continues to exist between the subject and his world, and that it has established its own *culture*: and this must not be. That clash, that social strife which, on the cognitive plane, the act of interpretation keeps open and alive, is sealed by the beautiful harmony of the symbol. Or in other words: meaning, in the classical *Bildungsroman*, has its price. And this price is freedom (63)

To interpret the world in a subjective manner, is to enter in conflict with it. With his novel, Goethe provides the reader with a way of avoiding this conflict, but the price is a loss of freedom. For Moretti, Goethe's novel hides a strong conformism and moral subordination: "[L]'educazione' di Wilhelm ed Elizabeth [of Jane Austen's *Pride and Prejudice*] consiste, tra l'altro, nel riconoscere che *la superiorità sociale vi fa tutt'uno con la superiorità morale*" (Moretti: 81, author's italics)[3]. Wilhelm and Elizabeth renounce to interpret their world as individuals and must therefore accept the conventions of society as the source of their morale.

Yet, this solution would not be possible for long. According to Moretti, the classical *Bildungsroman* was an attempt to disavow the French revolution and hold on to the ordered world that these historical events had shaken in its foundations. However, this would quickly reveal itself an impossible task:

> Quando divenne chiaro che le cose sarebbero andate altrimenti, il mondo apertosi in modo definitivo a un incessante conflitto di valori e a uno sviluppo sussultante di cui non s'intravedeva più il fine (e 'la' fine) non poté più specchiarsi nella solare normalità di Wilhelm Meister, né credere in una felicità così piena, così a portata di mano (Moretti: 82)[4]

Meister's happy formation into an adult is no longer believable, and after him there will not be any more important attempts to write another synthesis of the individual and society. The divide between them will be too big: "L'idea di formazione come sintesi di varietà e armonia; l'omogeneità di autonomia individuale e socializzazione; l'idea stessa di romanzo come forma organica e unitaria – tutto questo viene adesso, e per sempre, ridotto al rango di una favola" (Moretti: 83)[5].

Moretti details this conflictual relationship through the nineteenth century until the beginning of the First World War. Julien Sorel, the protagonist of Stendhal's *Le Rouge et le noir*, hides his true ideals inside himself while he cynically uses all means available to succeed in the world. Balzac's heroes on the other hand are simply pawns in the greater flux of society, being tossed around by the Parisian society. In England, the protagonists become simple representatives for society's norms and there are no longer any heroes to exercise their

[3] The 'education' of Wilhelm and Elizabeth [of Jane Austen's *Pride and Prejudice*] also consists in the acknowledgement that social superiority and moral superiority are one and the same (72)

[4] When it became clear that this was not to be, a world which had opened itself to a ceaseless clash of values and an erratic development with no end in sight could no longer recognize its own features in the bright normality of *Wilhelm Meister*, nor believe in such a total and easily available happiness (73)

[5] Formation as synthesis of variety and harmony; the homogeneity of individual autonomy and socialization; the very notion of the novel as a 'symbolic' and organic form – all these beliefs are now dismissed as so many fairy-tale illusions (75)

freedom (with the exception of George Eliot's protagonists). Throughout Moretti's elaborate analysis of the novel's role in Europe after the French revolution, we see the same central thread as with Lukács: The conflictual relationship between individual and society. Both see the modern individual as facing society in a constant struggle for power, a struggle which the novel represents in writing. Society imposes itself and the individual tries to retain as much as possible of his own integrity. This relationship is necessarily an oppressive one: To be integrated into society, is to give up or hide one's true self.

This seemingly irresolvable conflict is the point of departure for my analysis of the relationship between individual and society in *San Manuel Bueno, mártir*, *Il Barone rampante*, and *La Peste*. My intention is no way to contradict the account of Lukács and Moretti. Their insights into the conflict between individual and society are profound and have informed the history of the novel for decades. What I am interested in is rather to see how the three novels attempt to find an alternative way out of this conflict. I will try to show that, although they are very different, they all have the same point of departure. All three novels seem to question the idea that there is a clear line which divides the two entities, society and individual. Thus, instead of showing how the modern individual is irreconcilable with society, they attempt to create ways of becoming a part of a community of people without giving up their freedom or personal integrity.

I propose that in order to do this, the narrators of these novels construe the protagonists' ways of thinking in an unusual manner. I claim that these novels (although less so with Unamuno) describe the characters actions (both mental, social and physical) in a cognitively realistic manner. My claim in this investigation, is that all the narrators in the three novels, in very different ways, seem to propose a radical idea: the self is not a clearly delineated entity, rather, it spreads out into the environment, both social and physical. In the discussion of *Il Barone rampante* and *La Peste*, I will argue that in these two books, a full redefinition of the boundaries of what makes up a human being is developed. Such a redefinition is at the heart of the second generation of cognitive science and resonates especially strongly with the enactivist approach to the human mind. Thus, by investigating these novels from an enactive perspective, I will suggest that the two novels can be said to redefine the relationship between the individual and his community through redefining the relationship between body and mind. In fact, I will propose that by doing so, *Il Barone rampante* and *La Peste* can be said to succeed where *Meister* failed; their protagonists become part of society without any resort to any unlikely secret societies and without giving up their freedom or integrity.

2.2 The cognitive dividing line. The computational approach

The first-generation computational approach has held and still holds a very strong position in the cognitive sciences, but it has come under growing criticism the three last decades (Di Paulo et al 2017: 13). Enactivists posit themselves against a computational approach that views the human mind as functioning essentially as a computer. According to this computational approach, the mind receives its input (sensory data in a wide sense) from the world and processes this input in the brain to produce a certain output (behaviours of all forms). Consequently, the physical and the social world is reduced to simple data for the computer mind. Even though it responds to the exterior world, the mind is still detached from its surroundings and it operates autonomously in principle.

However, for the computational view, not only is the brain operating in autonomy from its surroundings, it is also separated from the body it inhabits. This idea can be summed up in what is called 'the brain in a vat' experiment. This thought experiment is used to prove that that even though the brain is dependent on a body to receive its signals, it is still the brain that constitutes all the mental activity: "According to this way of thinking, the body is strictly inessential for conscious experience; for example, in principle, a disembodied brain in a vat could have the same kinds of subjective experiences or states of phenomenal consciousness as an embodied brain" (Thompson and Cosmelli 2011: 164). In such an account, the only cause of cognition would be the neural activity in the brain.

This kind of approach is usually traced back to René Descartes who conceptualised humans as dualistic beings. According to Antonio Damasio, the most important (and most mistaken) idea of Descartes is the division between body and mind:

> This is Descartes' error: the abyssal separation between body and mind, between the sizable, dimensioned, mechanically operated, infinitely divisible body stuff, on the one hand, and the unsizable, undimensioned, un-pushpullable, nondivisible mind stuff; the suggestion that reasoning, and moral judgment, and the suffering that comes from physical pain or emotional upheaval might exist separately from the body. Specifically: the separation of the most refined operations of mind from the structure and operation of a biological organism (Damasio 1994: 249-250)

For Descartes, as Damasio constructs him, the body has strictly mechanistic functions, and simply follows orders from the mind or reacts to the physical environment. As Damasio points out, the computational approach have many similarities with Descartes' conception of the mind and the body: "The Cartesian idea of a disembodied mind may well have been the source, by the middle of the twentieth century, for the metaphor of the mind as a software program" (Damasio 1994: 250). In other words, the Cartesian separation of mind and body

can be said to be present still in the metaphor of the mind as software and the body as hardware.

Furthermore, still according to the computational model as seen by the enactivists, for the human mind to process the data from the external world, it must produce internal representations of what the world looks like. Since our minds are limited, we can only process a certain amount of data. This means that all the data coming in from our bodies are transformed by the brain into more easily manageable representations of the world. In turn, these mental images are then interpreted by the mind/software and cause behaviour. Again, this idea is traced back to Descartes, this time by Daniel Dennett. Descartes, Dennett says, conceives of a small part of the human brain, the pineal gland, as the *locus* of human consciousness: "[I]n order for a person to be conscious of something, traffic from the senses had to arrive at this station [the pineal gland], where it thereupon caused a special – indeed, magical – transaction to occur between the person's material brain and immaterial mind" (Dennett 1991: 105). Despite being highly controversial, Descartes' conception of the mind as containing a sort of control room (the pineal gland) where all the information is gathered and processed has proved hard to get rid of. Dennett famously described this stubborn idea as a "Cartesian Theatre", calling it "a bad habit" (Dennett 1991: 111). The Cartesian theatre is the idea that the brain has a central observer who observes the external world as were it a stage putting on a show. Dennett points out that there is no such stage at the centre of the brain, in fact, "[t]here is no single point in the brain where all information funnels in […]" (Dennett 1991: 102-103). Even though Dennett disagrees with the enactivists on many points, he would probably agree with them that a view of consciousness as somehow centred in a mysterious location within the brain from which it looks upon the world is deeply mistaken. Instead of being safely lodged in the brain, the enactivists see the mind as intrinsically connected to the world and to the body. This is the premise from which I shall approach *San Manuel Bueno, mártir, Il Barone rampante* and *La Peste* in the analysis of how they develop an alternative conception of individual and society in the novel.

2.3 Enactivism: Autopoiesis and sense-making

In order to explain the enactivist alternative to the computational approach, we must begin at a very basic level. Enactivism is informed by biology, and a fundamental assumption for the enactivist approach is that there is a strong continuity between lower and higher forms of life. From the simplest bacteria to the complex workings of human beings, all living things work

according to the same principles. This is not a reductionist model, humans are not reducible to their cellular components, nor does cells think in the same way as humans do. It is rather the refusal of any independent sphere of phenomena to be found outside a naturalistic understanding. Thus, Di Paulo rejects the idea of a

> sudden appearance of fully independent novel levels of description – for instance, the realm of human normativity – without an account of how their emergence and relative autonomy is grounded on (understandable in terms of and interaction with) phenomena at other levels (Di Paulo 2018: 4)

Any account of the human mind must therefore be coherent (but not identical) with the workings of the most basic biological levels. The enactivist understanding of the workings of a complex organism such as the human mind, begins therefore at the level of a simple cell.

There are of course certain nuances in the way that different enactivist thinkers understand these basic premises, but for the present stage of this work, Evan Thompson's account in *Mind in Life* from 2007 will serve as our point of departure[6]. Thompson grounds his discussion in a concept taken from biology, namely the notion of *autopoiesis*, which designates the most basic common denominator of life. First formulated by Maturana and Varela in 1973, this concept separates life from what is just simple physical elements. The hallmark of autopoiesis is self-production:

> There is a basic formal organization of life, and its paradigm and minimal case is to be found in the single cell. A single-cell organism is a self-making or self-producing being. Self-production is different from reproduction: In reproduction, a cell divides in two; in self-production, a cell continuously produces itself as a spatially bounded system, distinct from its medium or milieu. What is remarkable about self-production is that every molecular reaction in the system is generated by the very same system that those molecular reactions produce (Thompson 2007: 92)

However, even though this process is one of self-production and individuation from its milieu, it is also highly dependent of its surroundings:

> A cell is a thermodynamically open system, continually exchanging matter and energy with its environment. Some molecules are imported through the membrane and participate in processes inside the cell, whereas other molecules are excreted as waste. Throughout this exchange, the cell produces a host of substances that both remain within the cell (thanks to its membrane) and participate in those very same production

[6] It exists certain divergences between different strands of enactivist thinkers. Yet, those that define themselves as belonging to enactivism do not seem to hesitate to refer to enactivism as a one single thing and there is in fact a high degree of coherence between different thinkers under the enactivist umbrella. In this thesis therefore, I will treat them as belonging to one single school of thought and will rather point out any differences when the need arises.

> processes. In other words, a cell produces its own components, which in turn produce it, in an ongoing circular process. The word "autopoiesis" was coined to name this kind of continual self-production (Thompson 2007: 98)

Autopoiesis designates then the self-organising and autonomous nature of life. The whole is maintained by its parts, and its parts are maintained by the whole. However, the autopoietic cell is also actively engaged in its environment. The cell needs energy, and it acquires this from the outside, using some materials and rejecting others. Through its membrane, it actively controls this exchange, which then makes its self-production possible. This self-production is a circular process, what Thompson calls "organizational closure […]" (Thompson 2007: 45, italics removed), a process within the cell, without any hierarchy or top-down control. The cell is thus at the same time autonomous (it self-produces without being determined by external factors) and co-dependent (it relies on its surroundings for food).

The autonomous nature of the organism determines the nature of its coupling to the world. To maintain its autopoietic structure, it needs nurture, and so it is the metabolism that drives an autopoietic organism. As we have seen, to maintain its organisational autonomy, it must engage itself in its environment to attain food. By this process, the world attains a meaning (at its most basic level) for the organism[7]. The world becomes coloured by different values in relation to the organism's self-maintenance. Thus, the world is never perceived by the cell as neutral, but always in relation to itself and its metabolism. Thompson uses an example common to enactivists, that of bacteria looking for food:

> *Escherichia coli (E.coli)* is a kind of bacteria that has motile, rod-shaped cells. When swimming in the presence of a sucrose gradient, these cells will tumble about until they hit upon an orientation that increases their exposure to sucrose. At this point they will swim forward, up-gradient, propelled by their flagella, toward the zone of greatest sucrose concentration (Thompson 2007: 74)

This is the most basic process of sense-making for the enactivists. The sucrose's status as food is dependent on what they call the norms of the organism; that is, the factors relevant to its continuation and maintenance of its metabolism. Thompson explains how metabolism gives meaning to the world, even at this very basic level of life:

[7] The question whether autopoiesis is a sufficient condition for sense-making is discussed by Thompson with regards to Varela and Di Paulo (2005). Di Paulo suggests that in addition to autopoiesis an organism needs to have the capacity for adaptation, which is a more nuanced capacity that allows for regulating its coupling with the world with regard to states that comparatively better or worse, not only life-threatening. We will enter into these nuances later, in discussing *Il Barone rampante*.

> While sucrose is a real and present condition of the physicochemical environment, the status of sucrose as a nutrient is not. Being a nutrient is not intrinsic to the physicochemical structure of the sucrose molecule; it is a relational feature, linked to the bacterium's metabolism (Thompson 2007: 74)

The environment acquires thus different layers of relations to the organism, it "becomes a place of valence, of attraction and repulsion, approach or escape" (Thompson 2007: 158). Even a bacterium sees the world with its own eyes, so to speak. A meaningful world is brought forth by the constant need for self-maintenance. A cell constantly self-produces in a circular process but is at the same time dependent on its surroundings for nurture, thus imbuing the world with a meaning and a point of view. These are the basic structures of the simplest forms of life. However, according to the enactivists, even the most advanced forms of life emerges from these very basic structures. Thus, we will now see how enactivism makes the move from the basic cell to complex life.

2.4 Enactivism: Embodied cognition and sense-making

The human being is an autopoietic creature. Firstly, we are autonomous and self-producing, retaining our own version of the cell's membrane; our bodies. Secondly, we are also coupled to the environment by our need for nurture to self-maintain; that is, by metabolism[8]. This necessary coupling to the world regulates itself based on a third element, namely normativity within the human agent. Through this normativity, the process of sense-making takes place. The world is given a subjective meaning relative to the agent's needs. Normativity, meaning and bodily autonomy is of course not reduced simply to the need for food. However, the enactivists suggest that our complex lives emerge from these basics needs and must be coherent in some way with this very physical foundation of our existence. The embodied nature of human experience arises out of these conceptions of autopoietic organisms.

In *The Embodied Mind* from 1991, a milestone in the embodied turn in the sciences of the mind and a foundational work within enactivism, Francisco Varela, Evan Thompson and Eleanor Rosch construct a meeting between the cognitive sciences, phenomenology and Buddhist practices. They ground human cognition in the body and define it as "embodied action" (Varela et al. 2016 [1991]: 172). The point of departure of their discussion of human cognition is visual perception and the question of whether to give primacy to the perceiver or to the world. Is the world a pre-given structure which the perceivers must investigate,

[8] And, as we shall see in the discussion of *Il Barone rampante*, we are also coupled to our sensorimotor surroundings through the need to maintain our sensorimotor schemas.

discarding as much as they can of their own subjectivity to achieve the highest possible accuracy? Or is the perceived external world simply a result of the subjective inner worlds of the perceivers? According to Varela, Thompson and Rosch, the problem is that both the objective as well as the subjective view deem necessary that perception passes through some sort of internal representation, an idea which they reject. Varela, Thompson and Rosch propose instead that perception is a form of *action*. Here, perception does not work on internal representations, instead it functions as an embodied agent's engagement with the world: "Our intention is to bypass entirely this logical geography of inner versus outer by studying cognition not as a recovery or projection but as embodied action" (Varela et al 2016: 172). We understand the world by acting in it as an embodied agent, not by processing representations in a detached brain. But how does one perceive without representations?

For the enactivists, perception is a form of action. The idea is that in order to see an object, the body must move in a way as to be able to see it. Head movements, eye movements, moving the body around to access new perspectives, are all indispensable elements of seeing. To understand this idea, we can have a look at the example that Varela, Thompson and Rosch use, a well-known experiment performed by Held and Hein of two different sets of kittens. Both sets are raised in the same environment (a carriage) and exposed to the same amount of light. However, one of the sets of kittens is made to stand still, while the other can move around in the carriage. After a few weeks, this results in significant differences in the kittens. The active set behaves like normal kittens, while the passive set acts as if they were blind. They stumble around without being able to respond to the obstacles in their environments (Varela et al. 2016: 174). Without an embodied exploration of their visual environment, the kittens have not learnt to perceive; they are as if blind. We shall return to the subject of action and perception later in this work. At the present stage, it suffices to understand that enactivism considers perception not as a passive creation of representations in the brain, but as a form of coupled action between the agent and his world.

The enactivists see a continuity between the simplest forms of life and the more advanced forms, and similarly they insist on a continuity between the most basic forms of perceptually guided action and high-level cognition. For Varela, Thompson and Rosch, the human mind uses this embodied way of perceiving as a foundation to build more and more complex levels of cognition. They draw on the 'genetic epistemology' of Jean Piaget to elaborate on this point. Piaget noticed that the child's development is entirely based on a sensorimotor exploration of the world they are situated in:

> Within Piaget's system, the newborn infant is neither an objectivist nor an idealist; she has only her own activity, and even the simplest act of recognition of an object can be understood only in terms of her own activity. Out of this she must construct the entire edifice of the phenomenal world with its laws and logic (Varela et. al 2016: 176)

Although, according to Varela, Thompson and Rosch, Piaget construes this development as having its endpoint in the adult with objectivist and world-independent cognitive skills, his investigations are none the less "a clear example in which cognitive structures are shown to emerge from recurrent patterns […] of sensorimotor activity" (Varela et al. 2016: 176). In addition, Varela, Thompson and Rosch draw on the field of cognitive linguistics. Mark Johnson has proposed that humans possess something he calls "kinesthetic image schemas […]" (Johnson 1987; quoted in Varela et al. 2016: 177, italics removed). These schemas would be different ways of understanding the world which are drawn from very basic sensorimotor actions. Drawing on Johnson, Varela, Thompson and Rosch discuss the example of the 'container' schema which consists of an inside, an outside and a boundary (Varela et al. 2016: 177). This basic schema would then work as a conceptual tool to accomplish a wide set of higher cognitive operations: "[I]ts metaphorical projection gives structure to our conceptualizations of the visual field (things go in and out of sight), personal relationships (one gets in or out of a relationship), the logic of sets (sets contain their members), and so on" (Varela et al. 2016: 177). In other words, in this approach, it is our most basic sensorimotor actions that provide us with the foundations for abstract thought. I will elaborate further on the relationship between sensorimotor capacities and high-level cognition in relation to the analysis of *Il Barone rampante*. For now, we need only to retain that the main idea of embodied cognition, as construed by Varela, Thompson and Rosch, is that higher cognitive functions develop from and is dependent on the basic structures of sensorimotor perception.

For enactivism then, consciousness and cognition are not confined exclusively to the brain; they are not even exclusive to the human organism. As we saw, human cognition cannot be separated from the body. And, just as the cell makes sense of its surroundings through its embodied being in the world, so do human beings. Thompson underlines that the mind does not control the body as if it were a sort of robot, but that rather our bodies are inseparable from how we make sense in the world. As bacteria tumbling about looking for sugar, we tumble about in the world as embodied agents. Human life is in continuity with the simplest forms of life, and as such we do not so much perceive the world, as we *enact* it. Not as a detached computer/brain, but from a subjective standpoint that imbues the world with

meaning which is related to exactly *this* body. For consciousness is not about experiencing the world *from* a body, but rather *as* a body. Thus,

> [t]he scientific task is to understand how the organizational and dynamic processes of a living body can become constitutive of a subjective point of view, so that there is something it is like to be that body. For the enactive approach, this task takes the form of trying to understand a lived body as a special kind of autonomous system, one whose sense-making brings forth, enacts, or constitutes a phenomenal world (Thompson 2007: 237)

Instead of a Cartesian theatre, where the mind is a spectator looking at the brain's representations of the world, our sense-making must be an active and embodied world-involving process.

Its concept of the human mind and its situatedness in the world takes enactivism very far from the computational model of the human mind. Later in this thesis, I will investigate how the enactivist view of human cognition and action can help us understand sense-making as a sensorimotor process in *Il Barone rampante* and what implications it can have for social interaction in the analysis of *La Peste*. For now, what I want to underline here is how enactivism stands in stark contrast to the computational approach. Instead of an internal computer processing an external world, the world and the embodied human subject are enacted together in a co-dependent process.

We will now look at a novel that deals with some of the same questions, although in a very different language. In *San Manuel Bueno, mártir* by Miguel de Unamuno, the protagonist seems to grasp after new solutions to the relationship between the individual and the surrounding world. While Manuel himself ultimately fails to do so, Unamuno's narrator Angela succeeds in questioning some of the main tenets of a conception of individuals as clearly delineated from their social or physical surroundings. Through this double perspective, Unamuno's novel will open up our discussion and show how this novel can function as a counterweight to the historic analysis of Lukács and Moretti as well the computational approach to the human mind.

2.5 San Manuel Bueno and the others

The relationship between individuals and the people who surround them is a recurring theme in Miguel de Unamuno's writings. In *Niebla*, which first appeared in 1914, Augusto, the main protagonist, struggles to ground his own existence independently of others. In a highly metafictional finale where Unamuno himself appears, Augusto understands that he is only a

fictional character, dependent on the whims of the author. More conventionally, in *Abel Sánchez*, published in 1917, we get to see how the two main protagonists live and understand their entire lives through the other. At the end of Unamuno's career, in 1931, the first version of *San Manuel Bueno, mártir* is published (a final version was published in 1933). In this novel, its protagonist Manuel struggles with the corner stones of his own existence and his relationship to other people. The main plot revolves around the village priest, Manuel, who does not believe in God. That does not stop him from being a good priest. In fact, he looks so well after the villagers that he becomes immensely popular and ends up being canonized as a saint. This contradiction, that his good deeds are linked to a faith he does not actually hold, tears Manuel apart, and his story ends tragically. He dies at an early age, seemingly from the fatigue of performing his good deeds without having the matching mental attitude.

San Manuel Bueno, mártir can be read as staging a meeting between different ways to construct both the relationship between our actions and our inner selves and the relationship between others and the self. Through my analysis, I will show how, on one hand, ideas that resonate with Lukács and Moretti's conception of the individual and its cognitive flipside, the computational approach, are in play in this novel, but also, on the other hand, ideas closer to an enactive approach to the human mind. This discussion of *San Manuel Bueno, mártir* will prepare the ground for an enactivist analysis of *Il Barone rampante* and *La Peste*. Although *San Manuel Bueno, mártir* cannot be said to dissolve the limits between the self and its surroundings nor be cognitively realistic, as is the case for Calvino and Camus, we will see that the conflict between internal states and external actions is already clearly exposed in the story of Manuel as told by Angela. In Unamuno's short novel, we find a proto-enactivist exploration of the problem that stands in the centre of this thesis.

2.6 The priest that does not believe.

The story, written down by Angela, a close friend of the protagonist, revolves around the life of the village priest, Manuel. Right from the start, we are made aware that after his death he will be canonized for his good deeds (Unamuno 2018 [1933]: 115). However, it becomes clear as the novel develops that Manuel does not really believe in God. Despite this fact, Manuel deserves his sainthood. Along with Lazaro, Angela's brother, who gradually develops into a clerical non-believer as well, Manuel works tirelessly for the people of the village. He integrates the unfortunate into society (Unamuno: 119, 121), comforts the old and dying (Unamuno: 119), even helping them with their day-to-day tasks (Unamuno: 125). However,

as he preaches to the village, he is torn inside by his lack of faith. Unamuno's short novel explores this paradox.

Because Manuel has based his life on something that he does not himself believe in, he struggles to maintain a meaningful existence. This problem is so big that it seems even to threaten Manuel's will to live. In the voice of Lazaro, we are told how Manuel struggles with the temptation of suicide:

> Mira ayer, paseando a orillas del lago, me dijo [Manuel to Lazaro]: 'He aquí mi tentación mayor.' Y como yo le interrogase con la mirada, añadió: 'Mi pobre padre, que murió de cerca de noventa años, se pasó la vida, según me lo confesó el mismo, torturado por la tentación del suicidio, que le venía no recordaba desde cuándo, *de nación*, decía, y defendiéndose de ella […] Y yo la he heredado (Unamuno: 147, author's italics)[9]

Just as his father, to maintain his will to live seems a constant task for Manuel. It is the allure of suicide's promise of peace and quiet which tempts him: "¡Y cómo me llama esa agua con su aparente quietud – la corriente va por dentro – que espeja al cielo!" (Unamuno: 147)[10]. Manuel knows his good deeds to be without foundation, he does not believe what he preaches. His existence thus seems to be under constant threat, and the temptation to end it all and enter the apparent calm that seems to lie beyond these contradictions is always there. The question then becomes, what is it that keeps him going?

It seems that Manuel's strategy for overcoming the lack of a coherent meaning in his life is by a frenetic activity: "Su vida era activa, y no contemplativa, huyendo cuanto podía de no tener nada que hacer. Cuando oía eso de que la ociosidad es la madre de todos los vicios, contestaba: 'Y del peor de todos, que es el pensar ocioso'"(Unamuno: 124)[11]. Manuel is all over the place, always doing something. It is interesting here to see how this restlessness does not limit itself to mere physical busyness, but also extends to his mind; idle thinking is the worst of all. Before the narrator Angela grasps the full picture of Manuel's lack of faith, she understands that he flees from something: "Bien comprendí yo ya desde entonces que don Manuel huía de pensar ocioso y a solas, que algún pensamiento le perseguía" (Unamuno:

[9] Yesterday as we walked along the lake he [Manuel to Lazaro] said: 'There lies my direct temptation.' When I interrogated him with my eyes he went on: 'My poor father, who was close to ninety when he died, was tormented all his life, as he confessed to me himself, by a temptation to suicide, by an instinct to self-destruction which had come to him from a time before memory – from birth, from the beginning, as he said – and was forced to fight against it always […] and I have inherited it (63-64)

[10] How that water beckons me in its deep quiet (64)

[11] His life was active rather than contemplative, and he constantly fled from idleness, even from leisure. Whenever he heard it said that idleness was the mother of all vices, he added: 'And also of the greatest vice of them all, which is to think idly' (50-51)

125)[12]. To escape from the threatening thought of the complete mismatch between his inner ideas and his good deeds, Manuel keeps up a very high level of activity, both mentally and socially. This seems to be his solution to his problem. By avoiding being alone and inactive, neither mentally nor physically, he tries to avoid the horrible truth. As Manuel claims, without other people, facing his existential fears alone, he would not live on for long: "[L]a soledad me mataría el alma […]" (Unamuno: 129)[13]. It is through his solidarity with others, both in mind and action, that Manuel manages to go on living.

However, for Manuel, this contradictory existence is exhausting. No matter how much he tries, he does not manage to believe in the grounding of his own actions (Catholicism) and finds no solace in his good deeds alone. When discussing social reforms with his disciple Lazaro, he puts his own twist on a famous quote of Marx:

> Sí, ya sé que uno de esos caudillos de la que llaman la revolución social ha dicho que la religión es el opio del pueblo. Opio…, opio…Opio, sí. Démosle opio, y que duerma y que sueñe. Yo mismo, con esta mi loca actividad, me estoy administrando opio. Y no logro dormir bien, y menos soñar bien… (Unamuno: 152) [14]

Manuel does not have access to his own opium, he fails in drugging his inner state into believing itself in sync with his outer behaviour. I propose that Manuel's struggle with the contradiction between his inner state and outer actions illustrates well Lukács and Moretti's conflict between individual and the community. Manuel tries to adapt, to integrate himself into human society, but the prize is very high. His outer behaviour is definitively in accordance with societal norms; he is a village priest being canonized in a Catholic country. However, when we look on the inside, we see that his inner life is out of tune with his social actions. By integrating himself into society, Manuel has paid a steep prize. He has compromised his inner integrity.

This mismatch between inner life and outer activity is too much for Manuel. His powers are exhausted by his frenetic activity: "E iba corriendo el tiempo y observábamos mi hermano y yo que las fuerzas de don Manuel empezaban a decaer, que ya no lograba contener del todo la insondable tristeza que le consumía, que acaso una enfermedad traidora le iba

[12] Even in those early days I had already begun to realize that don Manuel fled from being left to think in solitude, and I guessed that some obsession haunted him (51)
[13] The solitude would crush my soul (53)
[14] I know well enough that one of those leaders of what they call the Social Revolution has already said that religion is the opium of the people. Opium… Opium… Yes, opium it is. We should give them opium, and help them sleep and dream. I, myself, with my mad activity, give myself opium. And still I don't manage to sleep well, let alone dream well (66)

minando el cuerpo y el alma" (Unamuno: 151)[15]. Hiding his lack of faith to himself by a constant mental and social activity can only last so long, and Manuel seems to die exhausted from the efforts to patch over the gaping contradiction between his beliefs and his actions. This last quotation also nicely underlines how Manuel can be said to exemplify the cognitive version of Lukács and Moretti's conceptualisation of the western individual's struggle with society. The insistence that Manuel's illness attacks both body and mind, reminds the reader of Manuel's Cartesian conception of the mind and the body; for Manuel, thought and action are disconnected. Manuel can be said to have a computational conception of the mind; his inner mental states do not match its output; his actions are not in sync with his mind. In any of these two conceptualisations, the main premise is the same; what is going on inside the brain or soul, is very hard to reconcile with the outside world. By his constant activity, he manages to push this contradiction aside for a while, but when he no longer has the strength to do so, he pays the ultimate prize for his own paradoxical existence.

2.6 Angela as narrator. Creating a middle ground

The conflict between inner doubt and outer activity that drives Manuel seems to resonate well with Moretti and Lukács' view of the relationship between individual and community as well as its cognitive version, the computational approach to the human mind. However, the novel also provides an alternative to Manuel's outlook on life. The narrator Angela seems to present a middle ground which could be accommodated by an enactivist framework. Thus, we now turn from Manuel to his biographer, Angela. To understand her role in the novel, we must in fact start at the end. In the closing pages of the book, Unamuno makes a metafictional move. A fictional version of himself appears and claims to only have written down Angela's manuscript as it has been handed down to him, with only some very few corrections (Unamuno: 167). Among other things, this finale serves to underline Angela's role as the author of Manuel's story. Throughout the book, her role seems to be to bring some balance to the extreme poles of life's meaninglessness and the frenetic activity of Manuel. This mediating effect is primarily achieved through being the narrator of Manuel's story; through her style of writing and the words she uses.

At the time Angela writes down the story of Manuel, many years after his death, she is in her fifties. Angela has not lost her faith by living so close to the sanctified atheist Manuel,

[15] And time went hurrying by, and my brother and I began to notice that Don Manuel's spirits were failing, that he could no longer control completely the deep rooted sadness which consumed him; perhaps some treacherous illness was undermining his body and soul (65)

but the nature of her believes changes throughout the book. As Stephen J. Summerhill claims, Angela's religious believes and her view on Manuel's sainthood pass through three different stages, a first deep religious stage, where she believes Manuel to be a true saint, a second stage of catholic orthodoxy in line with the way the church practices where she considers Manuel a sinner and finally a more pragmatic stage. At this last stage, she leaves this orthodox religion aside, but retains her faith in God and still acknowledge that Manuel was a saint although he did not believe (Summerhill 1985: 69-71). In the last paragraphs written by her, the notion itself of faith seems to have become blurred. She explains how believing, knowing and dreaming have become mixed together: "[Y]o no sé lo que es verdad y lo que es mentira, ni lo que vi y lo que sólo soñé – o mejor lo que soñé y lo que sólo vi –, ni lo que supe ni lo que creí" (Unamuno: 166)[16]. However, the question of faith no longer seems to be the most important issue. A few lines further down, talking about the effect that Manuel had on the villagers, she explains that it is to *live* that matters: "¿Y éstos, los otros, los que me rodean, creen? ¿Qué es eso de creer? Por lo menos viven. Y ahora creen en san Manuel Bueno, mártir, que sin esperar la inmortalidad los mantuvo en la esperanza de ella" (Unamuno: 166)[17]. The high-strung Manuel considers faith and doubt as two irreconcilable extremes; either one believes in God and work for the good of others, or one loses one's faith and with it one's will to live. Manuel tries to reconcile these extremes but fail in the end. The contradiction becomes too much of a burden. Angela on the other hand, approaches life in a much more pragmatic and balanced way; believing, knowing and living blend together. In what follows, we shall see how she invites the reader to consider an alternative solution to the dualist dilemma of Manuel through her way of writing.

To understand the role of Angela in this novel, we need therefore understand her as writer and narrator. I argue that Angela's descriptions of Manuel reveal how the two differ in their outlook on life. Already from the first pages, Manuel is described by using two physical opposites as similes: "[L]levaba la cabeza como nuestro Peña del Buitre [the nearby mountain] lleva su cresta, y había en sus ojos toda la hondura azul de nuestro lago" (Unamuno: 116-117)[18]. These are two very different pictures. On the one hand there is the hard, rocky mountain one cannot penetrate nor mould and on the other there is the water of

[16] Truly, I do not know what is true and what is false, nor what I saw and what I merely dreamt – or rather, what I dreamt and what I merely saw –, nor what I really knew or what I merely believed to be true (73)
[17] And the others, those around me, do they believe? And what does it mean, to believe? At least they go on living. And now they believe in saint Emmanuel the Good, Martyr, who, with no hope of immortality for himself, preserved their hope in it (74)
[18] He carried himself the way our Buitre Peak carries its crest, and his eyes had all the blue depth of our lake (46)

the lake which yields to and softens every movement. These two contradicting images of Manuel will reappear throughout the book.

After returning from a five year stay in a monastery, Angela describes Manuel a few pages further down as melting together with the mountain and the lake as well as the village itself: "[A] los quince volví a mi Valverde de Lucerna [the village]. Ya toda ella era don Manuel; don Manuel con el lago y con la montaña" (Unamuno: 119)[19]. In another example, this time in the voice of Lazaro, the moon underlines the melting together of Manuel and the lake by reflecting its light on first the surface of the lake, then in the tears of Manuel:

> Una noche de plenilunio –me contaba también mi hermano– volvía a la aldea por la orilla del lago, a cuya sobrehaz rizaba entonces la brisa montañosa y en rizo cabrilleaban las razas de la luna llena, y don Manuel le dijo a Lázaro. – ¡Mira, el agua está rezando la letanía y ahora dice: *Ianua caeli, ora pro nobis*, puerta del cielo, ruega por nosotros! Y cayeron temblando de sus pestañas a la yerba del suelo dos huideras lágrimas en que también, como en rocío, se bañó temblorosa la lumbre de la luna llena (Unamuno: 149-150, author's italics)[20]

Not only does the lake emulate Manuel by reflecting his preaching, Manuel also aligns himself physically with the lake by letting the moon first reflect itself in the lake, then in the tears of Manuel. The story is told by Lazaro, but the poetic use of words, and the complex way the moon connects the two, may suggest that Lazaro's story has been embellished afterwards by Angela's pen. Either way, when Angela choses to include it in her story, this passage contributes to the recurrent comparisons between lake, mountain and village on the one hand and Manuel on the other. In the last pages, Angela describes what she has learnt from Manuel by describing how to choose life is to melt together with these three entities: "¡Hay que vivir! Y él [Manuel] me enseñó a vivir, él nos enseñó a vivir, a sentir la vida, a sentir el sentido de la vida, a sumergirnos en el alma de la montaña, en el alma del lago, en el alma del pueblo de la aldea, a perdernos en ellas para quedar en ellas" (Unamuno: 164)[21]. In her writing, Angela describes Manuel as becoming part of his physical surroundings. In what

[19] When I became fifteen I returned to my own Valverde de Lucerna. By now everything revolved around Don Manuel: Don Manuel, the lake and the mountain (47)

[20] My brother told me, too, about one moonlit night when they were returning to town along the lake – whose surface a mountain breeze was stirring, so that the moonbeams topped the whitecaps – Don Manuel turned to him an said: 'Look, the water is reciting the litany and saying: 'ianua caeli, ora pro nobis; gate of heaven, pray for us' Two evanescent tears fell from his lashes to the grass, where the light of the full moon shone upon them like dew (65)

[21] I must live! And he taught me to live he taught us to live, to fell life, to feel the meaning of life, to merge with the soul of the mountain, with the soul of the lake, with the soul of the village, to lose ourselves in them so as to remain in them forever (72-73)

follows we shall see how these textual images point to a way out of Manuel's dualistic framework.

As suggested by Mario Valdés, one possible and plausible interpretation of the lake, the mountain and the village would be allegorical. In his interpretation, the lake would then represent doubt, the mountain faith, and the village humanity (Valdés 2018: 83). As we saw earlier, for Manuel, the lake works at one level as a physical representation of the attraction of suicide. This attached meaning is concurrent with the allegorical interpretation of Valdés. If Manuel lets his doubts grow too strong, life will lose all sense and he will drown himself in the lake. Angela on the other hand, constantly suggests in her way of writing that Manuel must become part of this lake, melt together with it. However, Angela also describes Manuel as being part of the mountain and the village, which in Valdés' interpretation symbolizes respectively faith and humanity. I propose that this is Angela's way of refusing the dualistic framework of Manuel. He must accept doubt, faith and the demands of society (the village or humanity in Valdés' interpretation) not as conflicting forces, but as different co-dependent aspects of his life. There is no doubt that Angela respects Manuel's good deeds, but she refuses his dualistic outlook on life.

Worn out by the contradiction between his inner doubt and his saintly outer behaviour, Manuel, stuck in his dualistic cul-de-sac, is led to an early death. Through her descriptions, Angela suggests how Manuel could have dissolved this contradiction. I propose that for Angela, this solution consists in seeing doubt as an incitement to act rather than a hindrance to good deeds. The solution for Manuel, as construed by Angela, would be to emerge himself into the doubt, become part of it, rather than fight it. Manuel should embrace doubt as that force which gives him his enormous drive to do good. After all, without his doubt-driven activities, Manuel would not have become a saint. In her descriptions, Angela shows that faith and doubt, that is the mountain and the lake, can in fact be two sides of the same coin: the struggle to maintain meaning in life. Doubt gives the forward movement, and faith is the meaning created. Conceptualized in an enactivist framework, one could say that doubt and faith can function in this story as elements of a sort of existential metabolism. Similar to bacteria searching for sugar, and so creating meaning in the world, humans are driven forward by our doubts to search for metaphysical nurture; that is, faith, and so we are driven to create sense in the world.

Finally, to cast further light on this co-dependence, we turn to Angela's taste for literary fiction. The previously mentioned metafictional finale not only serves to underline the fact that Angela is the author of the novel, the fictional Unamuno also issues another

interesting claim. He mentions, seemingly in passing, that "la novela es la más íntima historia, la más verdadera, por lo que no me explicó que haya quien se indigne de que se llame novela al Evangelio, lo que es elevarle, en realidad, sobre un cronicón cualquiera […] (Unamuno: 168)[22]. The bible is a novel, and this categorisation should be considered a compliment. This comparison points to the task of writing. The bible seeks to create sense in the world, and Angela's story, I suggest, does exactly that. Angela's role is to interpret the story of Manuel. She launches on a creative quest to *make* sense, instead of, as Manuel, looking for some external guarantee (God) for this. By claiming that literature is truer than reality, I suggest that the fictional Unamuno means to suggest that we must *create* our own sense in the world, instead of insisting, as Manuel does, that the world must be absolutely coherent with some eternal truth which resides somewhere outside of our minds. Perhaps it is through this creative power of literature that Manuel's contradiction can be solved. For, as we will see, it seems that Manuel lacks exactly this literary capacity to create the meaning that Angela possesses.

From a young age, Angela has been an avid reader of the books her father brought with him coming to the small village: "Trajo consigo unos cuantos libros, el *Quijote*, obras de teatro clásico, algunas novelas, historias, el *Bertoldo*, todo revuelto, y de estos libros, los únicos casi que había en toda la aldea, devoré yo ensueños siendo niña" (Unamuno: 116)[23]. Manuel on the other hand, with the only exception of distracting oneself with the popular seventeenth century poem *Bertoldo*, is very negative towards literature. When Angela comes to him with her doubts and problems, he brushes them aside and blames her literary readings: "Me [Angela] animé y empecé a confiarle mis inquietudes, mis dudas, mis tristezas. – ¡Bah, bah, bah! ¿Y dónde has leído eso, marisabidilla? Todo eso es literatura. No te des demasiado a ella, ni siquiera a Santa Teresa. Y si quieres distraerte, lee el *Bertoldo*, que leía tu padre" (Unamuno: 132)[24]. Doubts, anxiety and sorrows all seem to belong to the realm of literature for Manuel. This puts literature in clear opposition to Manuel's way of being. Although he experiences all these feelings, he always tries to sweep them aside, as if they could be overcome by an act of will. Angela on the other hand, gifted with a literary capacity, dares to address her doubts and so she manages to turn them into something productive and to

[22] The novel is, after all, the most intimate, the truest history, so that I scarcely understand why some people are outraged to have the Bible called a novel, when such a designation actually sets it above some mere chronicle or other (75)

[23] He had brought a number of books with him: *Don Quixote*, some plays from the classic theatre, some novels, a few histories, the *Bertoldo*, everything all mixed together. From these books – practically the only ones in the entire village – I nurtured dreams as a young girl, dreams which in turn devoured me (45-46)

[24] Bah! Where did you read this, Miss Intellectual. All this is literary nonsense. Don't succumb to everything you read just yet, not even to Saint Theresa. If you need to amuse yourself, read the *Bertoldo*, as your father before you did (54)

reconcile herself with the world. Thus, Angela not only sketches out a solution to Manuel's dilemma, but also points forward to the role of literature. Through the narration of Angela, writing and reading gain an important role in understanding oneself and others. In the following chapters we will see how this will be taken even further by the narrators of Calvino and Camus.

2.7 Enactivism and Angela's solution

As we have seen, enactivism provides a way to dissolve the dichotomy between the self and the world. It stands then in contrast to the antagonistic conception of the individual and society proposed by Lukács and Moretti as well as the computational approach to the mind. Angela, the narrator of *San Manuel Bueno, mártir* suggests a possible solution to Manuel's dilemma through creativity. However, how this actually would work is an open question. Yet, Angela might still give us the clue we need. Her metaphors suggesting that Manuel must become part of his environment could be more than just words. Instead of Manuel's strict separation between himself and the world, the solution could be to get rid of this divide once and for all. The enactivist approach provides the framework to do exactly that. By investigating *Il Barone rampante* and *La Peste* in an enactivist perspective, we will see how Angela's insights are extended in these novels in order to create a redefinition of the boundaries between the self and its surroundings. To extend into our social and physical environments is not a price to pay, as Moretti would have it, but rather a necessary condition of what it is to be a human being. It seems that Manuel was onto something after all, for "la soledad" and "la ociosidad" makes human existence very difficult. We do not exist in a detached brain but as embodied beings who enact our physical and social surroundings.

3. *Il Barone rampante*. A sensorimotor bildungsroman

The life of Italo Calvino's Cosimo in *Il Barone rampante* is defined by his somewhat unusual choice of living in the trees. And, as we will see, different from Unamuno's Manuel, Cosimo grounds his existence in the bodily interaction with the environment he lives in. In my analysis, I will investigate Calvino's novel as a modern *Bildungsroman* in two parts. The first depicts how Cosimo emancipates himself from his family and becomes an adult. In the second part, I will examine how Cosimo then turns to the world around him and how he interacts with and understands this world, both his village Ombrosa, but also an 18th-century Europe in turmoil. To do this, I will look to the enactivist approach for insights that allow us to understand Cosimo's *bildung* in terms of the establishment of sensorimotor mastery in his physical surroundings, which in turn serves as the base for Cosimo's understanding of the world.

3.1 Cosimo and the European *Bildungsroman*

In 1957 Italo Calvino published *Il Barone rampante* which would three years later appear together with two other short novels in the collection *I Nostri antenati*. Set in the 18th century, the story begins when the twelve-year old noble Cosimo Piovasco di Rondò refuses to eat his plate of snails (for many, an understandable choice) during a family dinner. After being scolded by his father, he decides to climb up into a nearby tree. As so many children before him has claimed with great conviction, Cosimo defiantly proclaims that he will stay there forever. However, unlike other children, Cosimo actually does. The narrator, his younger brother Biagio, tells how Cosimo grows up, becomes an adult and eventually an old man in the trees. He will make a home for himself in the forest, fall in love, and explore the world, all from the leafy treetops.

Apart from the oddity of living in the trees, the novel tells an easily recognizable story of growing up. Reaching the end of childhood at the age of twelve, Cosimo breaks away from his family. He emancipates himself from them by moving out to live amongst the lofty crowns of the trees, but at the same time stays close, as his arboreal existence is mostly limited to the forests of his hometown Ombrosa. Further, after telling the story of how Cosimo establishes himself in the trees, the novel depicts how he partakes in the world around him. This includes both everyday activities in the family and the neighbourhood, and the political events brought about by the French revolution. The novel ends with Cosimo old and dying, but still pleased with the way he has lived his life. Since his vow, he has never touched

ground. In fact, he seems to continue his airy existence even in death. From his deathbed (hoisted up into the trees), Cosimo hitches on to an air balloon in flight which lifts him out into the sea, where he disappears without a trace. Thus, the novel contains the entire life-story of Cosimo (except his early childhood). And, perhaps surprisingly in a modern novel, it is the story of a rich life which is lived in happy, if not always easy, coexistence with his surroundings.

I propose then that Calvino's novel functions as a *Bildungsroman*. Cosimo's story portrays how he is shaped as an individual and then how he creates a position for himself in society. However, Calvino's novel seems to be untypical of the genre, not only by its unusual setting, but also with regards to the relatively successful and happy *bildungs*-experience for Cosimo. As we have seen, in *Il Romanzo di formazione*, Franco Moretti posited the *Bildungsroman* as the modern genre above all. However, according to Moretti, the modern western and bourgeois *Bildungsroman* is a fundamentally contradictory genre. In fact, it is exactly this contradictory nature that gives the *Bildungsroman* its explanatory power:

> E anzi: [The *Bildungsroman*] non 'poté' esistere - *dovette* esistere. Giacché la contraddizione tra opposte valutazioni della modernità e della gioventù, o tra opposti valori e rapporti simbolici, non è un difetto – o magari è anche un difetto – ma è soprattutto il paradossale *principio di funzionamento* di larga parte della cultura moderna. Si pensi ai valori menzionati più sopra: libertà e felicità, identità e mutamento, sicurezza e metamorfosi – benché in contrasto tra loro, essi sono *tutti egualmente importanti* per la mentalità occidentale moderna (Moretti: 10, author's italics)[25]

The *Bildungsroman* functions as a vehicle for representing central conflicts in modern European history. It manages to hold within itself some of the most important contradictions between the individual and society. However, with time, these contradictions eventually become too strong. In the appendix to *Il Romanzo di formazione*, Moretti claims that the *Bildungsroman* as a genre was efficiently ended by the First World War (Moretti: 257-258). After this catastrophic event, the *Bildungsroman* was no longer possible, and the road was cleared for modernism and its interest for the unconscious and ineffable. Moretti's account of the *Bildungsroman* construes it as the genre that contains the fundamental contradictions of

[25] It [the *Bildungsroman*] could exist: better still, it *had* to exist. For the contradiction between conflicting evaluations of modernity and youth, or between opposing values and symbolic relationships, is not a flaw – or perhaps it is *also* a flaw – but it is above all the paradoxical *functional principle* of a large part of modern culture. Let us recall the values mentioned above – freedom and happiness, identity and change, security and metamorphoses: although antagonistic they are *all equally important* for modern western mentality (9, author's italics)

modern Europe. For Moretti, the *Bildungsroman* is a sort of impossible genre, which tries, hopelessly, to mend the fissures in the new modern society. For us, the question is then: How does *Il Barone rampante* situate itself in this account of the modern *Bildungsroman*?

I propose that Calvino represents an alternative to the rather dualistic western conception of the individual's road to adulthood that Moretti (and Lukács) so sharply examined. I suggest further that Calvino's novel counters the typical *Bildungsroman* by doing away with these contradictions and instead portrays a story of one individual's successful integration into society without having to compromise his own freedom. However, Calvino's novel could also easily be read as congruent with Moretti's framework. After all, Cosimo does seem to escape society in some way by ascending into the trees. From this perspective, Cosimo would point to the impossibility of retaining one's freedom among other human beings, and that an escape from society would be the only chance of independence. In an essay on Calvino's links to existentialism, entitled "Calvino and the existential dilemma: The Paradox of Choice", Constance Markey seems to place Calvino's novel in a similar framework as the one discussed by Moretti:

> In many respects, then, Cosimo's decision takes on the character of a choice between the lesser of two evils, as opposed to the positive choice between right and wrong espoused by a traditional ethic. Cosimo has opted for a lonely course not because it clearly reflects the *best* way to live, but only the least painful, the least fraught with threat to his individuality (Markey 1983: 60, author's italics)

Markey sees Cosimo as torn between the conflicts identified by Moretti some years later. According to Markey, Cosimo chooses to live in the trees to conserve his own individuality. His choice is essentially one of resignation: "Unable to decide between two diametrically opposed life styles, the active involved social life in contrast to the withdrawn contemplative existence, Cosimo retreats from both" (Markey 1983: 59). The choice might not be as stark as Markey makes it to be, however.

As the narrator Biagio underlines, even though Cosimo lives above ground, his need for human contact is still high. In fact his choice of dwelling seems to heighten this need: "Si direbbe che egli, più era deciso a star rintanato tra i suoi rami, più sentiva il bisogno di creare nuovi rapporti col genere umano" (Calvino 2016 [1957]: 274). Perhaps Cosimo does not retreat to the trees to retain his freedom, as Markey claims. Perhaps it is exactly his arboreal existence that makes it possible to succeed in combining individual freedom with society's demands. For I will argue that Cosimo establishes a positive relation with society, even though this gets difficult at times, all the time while retaining his independence. I will propose

that the key to Cosimo's success is to be found in the most basic elements of his life. The successful *bildung* of Cosimo into a useful member of society does not happen by somehow overcoming the overarching superstructures of society which restrain the individual's freedom. Cosimo succeeds rather by building his existence and understanding of the world from the most basic level. He learns to inhabit his embodied existence right within his physical surroundings.

Moretti saw the modern *Bildungsroman* as attempting a compromise rather than a synthesis of what he conceived of as a struggle between individual and society. This compromise would consist of giving of one's own freedom and in turn receive a safe place in society. According to him, the last important attempt of a synthesis was Goethe's *Faust*, which failed. Such a synthesis would be to construct a relationship between the individual and society which would not be antagonistic. I propose here, that *Il Barone rampante* can be said to attempt such a synthesis that Moretti seemed to think almost impossible. I suggest that Calvino's novel can be read as a humoristic and exaggerated description of how human beings construct their existence starting from the most basic sensorimotor processes. Building stone by stone, they can arrive at a rich comprehension of the world they live in and imbue it with a deep sense of meaning. The baron's story is strange and extraordinary, to live one's entire life in the trees is surely a fantastic feat. Yet, Biagio's story of his rather eccentric brother highlights some of the central mechanisms of human cognition. Seen through an enactivist framework, the story of Cosimo, as told by the narrator Biagio, depicts a human life which is both fantastic and realistic at the same time.

3.2 Sensorimotor contingencies. An enactivist account of vision

To support these claims, we must go back to enactivism and its claim that human existence is fundamentally embodied. I have already discussed that enactivism argues that we do not perceive the exterior world as a representation lodged somewhere in the brain but rather through our bodily sensorimotor engagement with this world. The ground-breaking article "A Sensorimotor Account of Vision and Visual Consciousness" by Kevin O'Regan and Alva Noë (2001) provides an account that grounds vision in the world rather than in the brain: "Instead of assuming that vision consists in the creation of an internal representation of the outside world whose activation somehow generates visual experience, we propose to treat vision as an *exploratory activity*" (O'Regan and Noë 2001: 940, authors' italics). According to them, it is not the activity in the brain that mediates what we see, but rather a certain know-how, that is,

a “knowledge of what we call sensorimotor contingencies” (O’Regan and Noë 2001: 940, italics removed). To perceive what is around us is not just a matter of using our eyes. Rather, we use the sensory feedback coming from our movements, that is our sensorimotor coupling to the physical environment, to construct what we see. In the act of ‘looking’ then, the human brain does not project the ‘data’ transmitted from the eyes to the brain onto some version of a mental ‘screen’. Rather, in looking, we master the physical rules that apply when we use our eyes, but also when we move around in and touch our physical surroundings.

Because they ground perception in the world and not the brain, O’Regan and Noë reject the idea that when we perceive a visual scene, we actually take in every single detail. However, an important issue then arises: “How then, – if at any moment only a small fragment of the world is actually being seen, – could we ever have that strong subjective impression that we continually have of seeing ‘everything’?” (O’Regan and Noë 2001: 946). The answer lies in the richness of the world perceived, not in the richness of some 3D representation in the brain. The world is immensely detailed, and because we can move our eyes and body to direct our attention to these details, our visual perception of the world appears to be equally detailed. However, what our eyes are actually seeing at any specific moment is very limited. To support their claims, O’Regan and Noë draw on a varied set of sources. Among these is the research being done on change blindness which aims to investigate how test subjects can fail to notice even the most obvious disturbances in their visual field if they are primed to direct their attention elsewhere. For example, in several experiments (Haines 1991 and Fischer et al. 1980, cited in O’Regan and Noë 2001: 954), it has been observed that aircraft pilots in flight-simulation, during the attention demanding landing of an airplane, can fail to notice massive obstacles in the runway. When a large airplane suddenly appeared on the screen of the flight simulator, two out of eight pilots ignored it, and landed right through it. The attention directed at the getting the plane down safely and the sheer improbability of the other airplane appearing, in some cases completely blocked out the visual signals for some of these pilots. What is in plain sight ends up being invisible. The authors use these results, along with others, to support their claim that vision is far from being a simple matter of the eyes transferring visual data to the brain. But if our eyes do not function as windows to the world, how do they then work?

To explain this, O’Regan and Noë draw on experiments conducted by, among others, Paul Bach Y Rita, on the effect of the so-called ‘tactile visual sensory substitution’ (TVSS). In Rita y Bach’s experiment, a camera, which transmitted signals to different vibrators strapped to the skin, was mounted on the spectacles of the test subjects. The idea of this device is to

help blind people perceive the world by distributing impulses based on visual data on some part of the skin in order to create a visual impression of the subjects' surroundings through these signals. Perhaps the most interesting result is that it was not before the subjects were able to move around with the TVSS that they succeeded in producing a visual experience: "This important point constitutes an empirical verification of the mainstay of the present theory of visual experience, namely, that seeing constitutes the ability to actively modify sensory impressions in certain law-obeying ways" (O'Regan and Noë 2001: 958). It is only when we combine the use of our eyes with our other senses and motoric actions (moving in this example) that we can grasp what is the base of visual experience; the laws of how the world acts when we move in it. This is the mastery of sensorimotor contingencies that O'Regan and Noë claim are the basis of visual perception.

This means that to perceive is to use the sparse data we have coming from our eyes along with our other senses to understand the rules that govern our movements. As one of their key examples, the authors use a system meant to guide missiles:

> Consider a missile guidance system allowing a missile to home in on an enemy airplane. As the missile zigzags around to evade enemy fire, the image of the target airplane shifts in the missile's sights. If the missile turns left, then the image of the target shifts to the right. If the missile slows down, the size of the image of the airplane decreases in a predictable way. The missile guidance system must adequately interpret and adapt to such changes in order to track the target airplane efficiently. In other words, the missile guidance system is 'tuned to' the sensorimotor contingencies that govern airplane tracking. It 'knows all about' or 'has mastery over' the possible input/output relationships that occur during airplane tracking (O'Regan and Noë 2001: 943)

This example shows how visual information functions as a way to understand the regularities of the environment. Instead of providing bits that together make up a rich picture, the sensory data provides information on how to move. In O'Regan and Noë's framework then, the world works as a gigantic store of information. We can only ever grasp a small portion of this plenitude at the time. This is less of a problem than it might appear at first glance. We come to understand the laws that govern our movements in the world by directing our visual attention towards certain parts of our visual scene, and this is enough: "Visual consciousness is not a special kind of brain state, or a special quality of informational states of the brain. It is something we do" (O'Regan and Noë 2001: 970). In other words; seeing is moving.

3.3 Sensorimotor agency. The normativity of the treetops

The enactivist conception of our senses as the mastery of sensorimotor contingencies will help us understand the logic according to which the *bildung* of Calvino's young baron becomes a success. I will suggest that Cosimo's path from adolescent to adult with full agency over his own life pass through his sensorimotor mastery of his surroundings, that is, of the life in the trees. Shortly after Cosimo's ascent into the trees, some servants encourage him to come down so as not to hurt himself. He states what might seem like a rather standard teenage claim of independence, almost a cliché: "[S]o la mia strada, so la mia strada da me!" (Calvino: 118)[26]. However, with Cosimo this is not so straight forward. Moments later we are told how Cosimo bewilders the spectators with his impressive movements through the trees : "Sparì dietro il tronco e riapparve su un altro ramo, girò ancora dietro il tronco e riapparve un ramo più su, risparì dietro il tronco ancora e se ne videro solamente i piedi su un ramo più alto, perché sopra c'erano fitte fronde, e i piedi saltarono, e non si vide più niente (Calvino: 118)[27]. I propose that if we read this "strada a me" together with Cosimo's subsequent acrobatics, we understand how it not only marks his emancipation from his parents but also how it points to the nature of this emancipation. I will argue that Cosimo's path to independence goes through "la strada" itself, his sensorimotor interactions with the trees.

How then does Cosimo achieve independence and reach adulthood not only *in* the trees and but also *by means of* the trees? To understand this, we will have a look at how Cosimo fits into an enactivist conception of agency. In their book *Sensorimotor Life,* the enactivists Ezequiel A. Di Paulo, Thomas Buhrmann and Xabier E. Barandiaran propose a definition of what makes up a full agent. They list three requirements for agency: "self-individuation, interactional asymmetry, and normativity […]" (Di Paulo et al. 2017: 139). The first requirement of agency, self-individuation, is similar to the notion of autopoiesis as we have seen earlier in our discussion: "Only systems that manage to sustain themselves and distinguish themselves from their surroundings, and in so doing define an environment in which their activity is carried out, are considered as candidate agents in this approach" (Di Paulo et al. 2017: 112). All agents must have defined borders that separate them from their surroundings. Such self-individuation is however 'precarious'. If it does not actively define itself, it perishes (Di Paulo et al. 2017: 116).

[26] I know the way, I know my own way (46)

[27] He disappeared behind the trunk and reappeared on another branch, made another circuit of the trunk and reappeared on a higher branch, then disappeared behind the trunk again, and they saw only his feet on a higher branch, because the foliage above him was thick, and the feet jumped, and nothing more could be seen (46)

This precariousness leads to the next requirement: "interactional asymmetry" (Di Paulo et al. 2017: 116). This notion designates the nature of the interaction between agent and surroundings. As Thompson pointed out, any agent must seek out some sort of nourishment from the environment to maintain itself. However, Di Paulo, Buhrmann and Barandiaran introduce an asymmetry in this interaction. Full agents must not only interact but also modify their interactions with their surroundings, that is, at least at certain points, they must induce changes in the interchange between them: "Rather than implying an equal relation between agent and environment, we mean that the agent is, at least on occasions and with some regularity, the source of certain activity, not always just the sufferer of external forces." (Di Paulo et al. 2017: 116). All agents must in other words be active in forming their environment to better suit their needs.

The third requirement for agency is 'normativity'. At a very basic level, the agent's norms consist of evaluating its actions regarding to its own viability: "[A]ctions are good as long as the agent is viable" (Di Paulo et al. 2017: 122). However, Di Paulo, Buhrmann and Barandiaran introduce the concept of "adaptivity" which underlines how normativity is not only a matter of life or death but also a matter of nuanced decisions which aim to improve living conditions, also in the long run: "Being adaptive […] entails the capacity to improve living conditions or avoid or address threats to viability by assessing a situation relative to the norms given by self-individuation, and acting on it in a graded and directed manner" (Di Paulo et al. 2017: 122). This in turn enables sense-making: "A sense-maker is involved in interactions with its environment that are regulated with respect to their virtual consequences for the viability of the sense-maker's form of life" (Di Paulo et al. 2017: 123). Based on its normativity, the world receives its meaning from the subjective viewpoint of each agent.

However, Di Paulo, Buhrmann and Barandiaran take their enactive approach of agency to a new level, beyond mere physical survival. According to them, the biological level cannot account for all behaviour: "Much of the behaviour we observe in animals and persons, while remaining biologically viable, is clearly underdetermined by the conditions for biological autonomy. Many actions acquire value 'on top of' their organic functionality, sometimes even in tension with it" (Di Paulo et al. 2017: 143). They suggest that, going beyond just the biological concerns, an agent can achieve what they call "sensorimotor agency"[28] (Di Paulo et al. 2017: 141-142). With this form of agency, the acts which the agents perform achieve a value in themselves, not only from the biological rewards they can attain:

[28] Although their main focus lies with the sensorimotor agency, the authors claim in a note that there are other forms of agency too, as for example social agency (Di Paulo et al. 2017: 143). It would be interesting to examine

> It is acts – the acts of an agent – that constitute and reassert a new kind of agency, one that is enabled and constrained, but ultimately underdetermined, by biology. It is literally a case of explaining who you are by referring to what you do, and explaining what you do by referring to who you are (Di Paulo et al. 2017: 142)

Sensorimotor agency then means that it is how the agents act that defines who they are and how they make sense of the world.

The building stones of this sensorimotor agency are sensorimotor schemes. These function as "organizations of sensorimotor coordination patterns that are often enacted together and in combination with other schemes" (Di Paulo et al. 2017: 81). The schemes are then flexible skill sets, which can be combined in always new ways. Thus, they function as a form of sensorimotor knowledge which is used in combination to face new challenges:

> We always come into any situation not with the task of adequately constructing from scratch every single muscle activity and the specific movement of each joint. On the contrary, we are equipped with a rich repertoire of ready-made, highly organized ways of engaging with the world (Di Paulo et. al 2017: 81)

When schemes from this "repertoire" are combined in similar ways over time, they can in turn strengthen their connections among themselves and form habits. What separates habits from schemes, is the need to maintain them: "Habits […] extend the concept of sensorimotor schemes by adding the notion of precarious self-maintenance: if the habitual scheme is not enacted with sufficient frequency, the structures supporting it start to lose the properties that enable it" (Di Paulo et al. 2017: 144). This precariousness in turn introduces the need of a sort of sensorimotor nurture; without using the habits, they disappear.

When the precarious habits then bundle together and interact with each other in co-dependent structures, they form what Di Paulo, Buhrmann and Barandiaran call "sensorimotor networks" (Di Paulo et al. 2017: 149). It is these networks, they claim, that can achieve a degree of independence and internal coordination so strong that they can be said to provide the agent with a new form of agency. This agency would then satisfy the standards previously discussed: Individuation, asymmetric coupling to the world and normativity (Di Paulo et al. 2017: 157-158). I will argue that Cosimo develops exactly such sensorimotor networks which provide with him agency and thus enabling him to make the passage from childhood to adulthood.

Calvino's novel in the light of such an agency as well. However, since my point is that Cosimo builds his social relations on his movements in the trees, in this thesis, I will limit myself to investigating his sensorimotor agency.

How then can these networks bestow sensorimotor agency to the agent? Firstly, these networks can self-maintain and create their own limits. By defining what is relevant for its maintenance, the network defines its limits:

> The sensorimotor agent's environment […] is constituted by all those aspects that can influence the web of sensorimotor schemes. Conversely, any external factors that in principle cannot influence the dynamics of the sensorimotor network are not part of its environment. The closed network of sensorimotor schemes thus specifies a new domain of what is or is not relevant, and it is in this sense that it distinguishes itself from its own environment (Di Paulo et al. 2017: 153)

Secondly, the agents actively regulate their coupling to the world to better maintain these networks. For example, a kitchen chef or a carpenter modify their environment to facilitate their sensorimotor networks:

> They often prepare themselves for the task at hand, by wearing the right shoes, goggles, aprons, etc., not just for safety reasons but also to work better. Ensuring that everything is in its proper place and other acts *aimed at future acts*, are asymmetric regulations of the primary activity that is precision woodwork or preparation of a sophisticated dish (Di Paulo et al. 2017: 157, authors' italics).

Thirdly, the networks make sense of the world according to a normativity connected to their own survival. This normativity yields of a certain flow: "The idea of cooperation or harmony is precisely the kind of normative notion that emerges at the sensorimotor level. Other sensorimotor normative dimensions include efficiency, robustness, adequacy, dexterity, elegance, and coherence" (Di Paulo et al. 2017: 156). Thus, from the basis of biological agency emerges a sensorimotor agency equipped with its own normativity. This normativity is the standard of evaluation according to which these sensorimotor networks maintain themselves. And, as we have seen earlier, normativity gives sense to one's surroundings. A sensorimotor agent thus becomes an autonomous individual through his sensorimotor engagement with the world, and through this engagement, the world is imbued with meaning. Now we shall see how this form of agency, together with O'Regan and Noë's account of how we perceive the world, can help us understand Cosimo's passage from adolescent to adult. This passage, I propose, takes place through his sensorimotor coupling with the trees.

3.4 Sensorimotor agency and *Il Barone rampante*

We have now seen how the enactivist approach accounts for how we perceive as well as how we can become full agents through creating sensorimotor networks. The jump from such a

philosophical account to a fictional novel can seem rather large. I underline that my intention is not to claim that *Il Barone rampante* can be reduced to a sort of literary illustration of enactivist philosophy, where each philosophical argument about the nature of the human mind would have its allegorical counterpart in Calvino's novel. Rather, my claim will be that the insights gathered from enactivism enable us to understand Cosimo's *bildung* differently. The enactivist account gives me a selection of conceptual tools which allows an examination of the embodied nature of Cosimo's *bildung*. He reaches adulthood not only *in* the trees, but *through* his embodied mastery of these same trees. Thus, I will claim that the story of Cosimo can be understood as the story of his passage to sensorimotor agency. Read as such, by living in the trees, Cosimo slowly fulfils all three requirements listed by Di Paulo, Buhrmann and Barandiaran and thus he reaches adulthood.

Here, not only Cosimo's movements in the trees but also the narration of his brother Biagio needs to be considered. As I stated in the introduction, following Popova's enactive account of literature, I consider literature as an interaction of sense-making between the reader and the narrator. Biagio's sources for his narrative in *Il Barone rampante* are his own first-hand experience from the ground, as well as what Cosimo himself has told him. The story told by Biagio, emerges partly from the words of the tree-dweller Cosimo himself, partly from Biagio who spends his life looking at his older brother's lofty manoeuvres among the trees. This means that not only the actual sensorimotor interactions of Cosimo, his movements in the trees, but also the way in which they are described can provide us with insights into how the young Cosimo accomplishes his passage into an adult. As we learnt from O'Regan and Noë, perception is something we do, and what Biagio chooses to describe says a lot about how Cosimo acts and, consequently, thinks. Therefore, as we shall see, how the story is told is inseparable from what is told.

Cosimo's story starts with a choice, namely his vow to live in the trees for the rest of his life. However, any deeper reason for this choice is never made explicit. As in much other literature, we are not told everything. However, it might also be the case that Cosimo himself does not understand fully the reasons for what he is doing. For Kathryn Hume, in her book on Calvino, *Calvino's Fictions: Cogito and Cosmos*, it is ultimately a problem that Cosimo lacks the capacity to explicate why he decides to stay in the trees:

> However, ultimate meaning escapes Cosimo as it does Qfwfq [the protagonist of *Le Cosmicomiche*]. Indeed, the baron cannot even fully define what he has done and why; as he says to Tolstoy's Prince Andrej [who makes an appearance in the book], he has lived for ideals which he does not know how to explain to himself. Definable,

> defensible meaning thus trickles away, leaving one with pattern for its own sake (Hume 1992: 100)

Hume is right to point out that Cosimo does not know explicitly why he lives the way he does. Early in the novel, Biagio asks Cosimo about the reasons for his choice after he has proudly announced that has not yet touched the ground:

> Perché? – chiesi io; era la prima volta che lo sentivo enunciare quella sua regola, ma ne aveva parlato come d'una cosa già convenuta tra noi, quasi tenesse a rassicurarmi di non avervi trasgredito; tanto che io non osai più insistere nella mia richiesta di spiegazioni. – Sai, – disse, invece di rispondermi, – è un posto che ci vuole dei giorni a esplorarlo tutto, dai D'Ondariva! (Calvino: 107)[29]

The rule that ends up defining Cosimo's life is not an elaborate rational choice. Biagio thinks that Cosimo avoids the why-question. However, within an enactivist framework, it might be that Cosimo gives the only answer he can give: He lives in the trees, not for some profound philosophical reason, but rather for the very simple reason that this way of life enables him to move in a way not possible on the ground.

I will argue that "meaning" does not so much escape Cosimo, as Hume claimed, as it is lodged instead in what she called "pattern for its own sake". My claim is that these patterns can be construed as the sensorimotor networks that Cosimo establishes in the trees. Cosimo might not be able to put the reason into words, but his actions express it without the need for explicit articulation. It is here that the enactivist account of sensorimotor agency becomes relevant to Calvino's novel; it allows us to explicate the embodied sense-making and individuation that Cosimo for the most time expresses through his actions rather than words. Words, however, are by no means irrelevant. The way Biagio tells Cosimo's story also reflects how Cosimo interacts with his surroundings, and how he creates meaning through his sensorimotor networks. The literary techniques strengthen this meaning through the way his movements are described. As we will see, Biagio's extended use of motion verbs and tactile adjectives supports my suggestion that Cosimo's passage to adulthood passes through his sensorimotor interaction with the trees. This interaction enables what would be the maintenance of his sensorimotor networks that gives meaning to his world and establishes him as a full individual, independent from his family. Seen in an enactivist framework, I will

[29] Why? I asked; it was the first time I'd heard him pronounce that rule of his, but he had spoken of it as of something already settled between us, as if he were eager to reassure me that he hadn't broken it, so I no longer dared to insist on my demand of an explanation. 'You know', he said, instead of answering, 'it would take days to explore the whole of that place, the D'Ondarivas! (30)

suggest that Cosimo arrives at sensorimotor agency by meeting the three requirements of Di Paulo, Buhrmann and Barandiaran: Individuation, asymmetric coupling to the world, and normativity.

However, to investigate Cosimo's road to sensorimotor agency, we must first examine if it can be said that his arboreal existence creates the kind of sensorimotor networks which lie at the core of this type of agency. Cosimo chooses the trees for his escape from his family not at random. He and Biagio have already spent hours climbing there: "Ci arrampicavamo sugli alberi (questi primi giochi innocenti si caricano adesso nel mio ricordo come d'una luce d'iniziazione, di presagio; ma chi pensava, allora?)[...]" (Calvino: 89)[30]. This activity was motivated by no other reason than the sheer fun of it:

> Ho già detto che sugli alberi noi trascorrevamo ore e ore, e non per motivi utilitari come fanne tanti ragazzi, che si salgono solo per cercar frutta o nidi d'uccelli, ma per il piacere di superare difficili bugne del tronco e inforcature, e arrivare più in alto che si poteva, e trovare bei posti dove fermarci a guardare il mondo laggiù, a fare scherzi e voci a chi passava sotto (Calvino: 94)[31]

I suggest that what Biagio describes here is the beginning of the development of Cosimo's meaning-building sensorimotor networks. The two brothers do not climb as a means to achieve something, but rather they find meaning in the activity itself, in the overcoming of obstacles and reaching of new heights. When the conflict arises with his family, it is only logical that Cosimo uses the already established sensorimotor networks of tree-climbing: "Trovai quindi naturale che il primo pensiero di Cosimo, a quell'ingiusto accanarsi contro di lui, fosse stato d'arrampicarsi sull'elce[...](Calvino: 94)[32]. When Cosimo ascends into the trees for good, his sensorimotor mastery, already present when he lived on the ground, is taken to another level.

Soon after his ascent, he starts to move from tree to tree and his movements become smoother:

> Cosimo era sulla magnolia. Benché fitta di rami questa pianta era ben praticabile a un ragazzo esperto di tutte le specie d'alberi come mio fratello; e i rami resistevano al peso, ancorché non molto grossi e d'un legno dolce che la punta delle scarpe di

[30] We climbed the trees (these first innocent games are now charged in my memory with the light of initiation, of premonition, but who would have thought of it then?) (7)
[31] I have already said that we spent hours and hours in the trees, and not for utilitarian reasons, like many boys, who climb up just to look for fruit or birds' nests, but for the pleasure of overcoming difficult protuberances and forks, and getting as high as possible, and finding beautiful places to stop and look at the world below, to make jokes and shout at those who passed under us (14)
[32] So I found it natural that Cosimo's first thought at that unjust anger against him was to climb the holm oak[…] (14)

> Cosimo sbucciava, aprendo bianche ferite nel nero della scorsa; ed avvolgeva il ragazzo in un profumo fresco di foglie, come il vento le muoveva, voltandone le pagine in un verdeggiare ora opaco ora brillante (Calvino: 98)[33]

We see here how Cosimo uses the sensorimotor contingencies discussed by O'Regan and Noë. The resistance provided by the branches and the scraping from his shoes opening the bark give Cosimo the 'feedback' needed to establish the know-how of moving in the trees. He also discovers that his world of trees enables him to move very far:

> Capì che, le piante essendo così fitte, poteva passando da un ramo all'altro spostarsi di parecchie miglia, senza bisogno de scendere mai. Alle volte, un tratto di terra spoglia l'obbligava a lunghissimi giri, ma lui presto s'impratichì di tutti gli itinerari obbligati e misurava le distanze non più secondo i nostri estimi, ma sempre con in mente il tracciato contorto che doveva seguire lui sui rami (Calvino: 112)[34]

Cosimo's displacements over large distances become so smooth that his measuring no longer converts to the standards used on the ground, he thinks directly in terms of different paths through the trees instead of abstract miles on the ground. This again shows how Cosimo can be seen as establishing strong sensorimotor networks, bundles of behavioural patterns that couple with the environment by mastering the sensorimotor contingencies of the trees. However, the question remains; do these networks meet the requirements for sensorimotor agency previously discussed? We now turn to how the networks develop independency and how the need arises to regulate their coupling to their surroundings. This in turn creates a sensorimotor normativity that I will claim underlies Cosimo's entire life in the trees and the endpoint of his passage from adolescence to adulthood.

3.5 Coming of age. Individuation, asymmetric coupling and normativity

Throughout the novel, Cosimo stays close to his family and forms strong links to his surroundings, both practical and physical as well as more intellectual ones. Even if Cosimo lives his whole life in the trees, he never loses himself in nature; he always remains a human being. According to Biagio, "per quante doti egli assorbisse dalla comunanza con le piante e

[33] Cosimo was in the magnolia. Although its branches were close together, this tree was easily accessible to a boy like my brother, expert in all species of trees; and the branches stood up to his weight, although they weren't very large and were of soft wood that the tips of Cosimo's shoes scraped, opening white wounds in the black bark; it wrapped the boy in a fresh scent of leaves as the wind stirred them, turning them to a green that was now opaque, now bright (18)

[34] He understood that since the trees were so thick, he could travel many miles, going from branch to branch, without ever having to get down. At times a stretch of bare earth obliged him to make lengthy detours, but he soon learned all the necessary routes, and he measured distances not according to our estimates but always having in mind the circuitous path he had to follow along the branches (37)

dalla lotta con gli animali, sempre mi fu chiaro che il suo posto era di qua, era dalla parte nostra" (Calvino: 160)[35]. The danger of losing oneself in nature is mentioned at several passages in the novel. During the wars raging in the wake of the French revolution, Cosimo helps out the French soldiers around Ombrosa. The soldiers, posted deep in the forest, are in danger of being swallowed by it: "Muschi e licheni crescevano sulle divise dei soldati, e talvolta anche eriche e felci; in cima ai colbacchi facevano il nido gli scriccioli, o spuntavano e fiorivano piante di mughetto gli stivali si saldavano col terriccio in uno zoccolo compatto: tutto il plotone stava per mettere radici" (Calvino: 286)[36]. Cosimo decides to help. From the trees he throws fleas at the soldiers, and the result is immediate: "si lavavano, si radevano, si pettinavano, insomma riprendevano coscienza della loro umanità individuale, e li riguadagnava il senso della civiltà, dell'affrancamento dalla natura bruta" (Calvino: 287-288)[37]. Cosimo's way of life lies in the trees, but he also knows that one must not go too far, as the French soldiers did, and forget one's own individuality.

After losing the love of his life, Viola (we will return to their love-affair at a later point), Cosimo actually do lose himself in nature for some time. Cosimo is so unhappy that he wants to become a bird: "Finì per farsi delle marsine tutte ricoperte di penne, e ad imitare le abitudini di vari uccelli, come il picchio, traendo dai tronchi lombrichi e larve e vantandoli come gran ricchezza" (Calvino: 263)[38]. This period of heartbreak is described several times by Biagio as absolute madness (Calvino: 262-263). I suggest that Biagio's insistence of Cosimo's madness, along with the example of the French soldiers, effect a strong warning against becoming too close to nature. Cosimo is closely coupled to his surroundings, but like the bacteria and the sugar, this coupling never compromises his individuality. Cosimo thus fulfils the first requirement for sensorimotor agency, namely independence from his environment. Cosimo is always autonomous, no matter how closely coupled he lives with the trees and the birds.

The second requirement for sensorimotor agency is the asymmetric regulation of the coupling between agent and surroundings. Though this sounds very technical, in Cosimo's case, it is in fact more of a practical issue. Cosimo spends a lot of time solving the everyday

[35] No matter how many gifts he absorbed from his commonality with plants and his contest with animals, it was always clear to me that his place was over here; he was on our side (106)
[36] Mosses and lichens were growing on the soldiers' uniforms, and sometimes even heathers and ferns; in the tops of their busbies mites made their nests, and lilies of the valley sprouted and flowered; the soldiers' boots solidified with the earth into compact clods – the whole platoon was about to put down roots (285)
[37] They washed, they shave, they combed their hair; in short they regained consciousness of their individual humanity, and the sense of civilisation, of deliverance from brute nature, won them back. (287)
[38] He made himself tailcoats all covered in feathers, and imitated the habits of various birds, like the woodpecker, extracting worms and larvae from the trunks and boasting of them as of great wealth (254)

problems which arise when you live among the trees. He solves the issue of how to supply water by collaborating with nature: "[A]veva una sua fontana pensile, inventata da lui, o meglio costruita aiutando la natura" (Calvino: 154)[39]. The more private needs are also solved elegantly by using the affordances offered to him by nature: "Allora trovò, sulla riva del torrente Merdanzo, un ontano che sporgeva sul punto più propizio e appartato[...]" (Calvino: 155)[40]. Cosimo adjusts the trees to his and others' needs. As he develops a keen interest in artisan trades, he helps out the local fruit-farmers with pruning their trees. This service is popular with all the farmers. Yet, there is no reason why he should not help himself a bit while he is helping others:

> Certo, egli badava sempre, potando e disboscando, a servire non solo l'interesse del proprietario della pianta, ma anche il suo, di viandante che ha bisogno di rendere meglio praticabili le sue strade; perciò faceva in modo che i rami che gli servivano da ponte tra una pianta e l'altra fossero sempre salvati, e ricevessero forza dalla soppressione degli altri (Calvino: 185)[41]

Cosimo thus skilfully shapes his environment to suit his sensorimotor needs and to ensure his smooth passage from tree to tree. This, along with his practical adjustments, can be understood as the way Cosimo actively regulates his coupling to his physical surroundings, and thus fulfilling the second requirement.

For our purposes, the third requirement, that these sensorimotor networks gain their own normativity, is the most important. This normativity arises due to the precariousness of the networks; the fact that the bundles of habits, which the networks consist of, will dissolve themselves if they are not actively practiced. Thus, the networks need to self-maintain, and consequently, the world gains a meaning related to this need. I suggest that Cosimo establishes such normativity in tandem with his need to maintain his sensorimotor mastery of the trees. An early example of this is when Cosimo looks out on the world from the treetops. Seen from above, everything looks different: "Cosimo guardava il mondo dall'albero: ogni cosa, vista di lassù, era diversa, e questo era già un divertimento" (Calvino: 96)[42]. Here, we

[39] He went to the fountain, because he had a hanging fountain, which he had invented, or rather constructed, by giving nature a hand (98)
[40] So on the bank of the River Merdanzo he found an alder that stuck out at a most convenient and secluded point, with a fork on which one could sit comfortably (99)
[41] Certainly he was always careful, in pruning and trimming the trees, to serve not only the interest of the owner of the tree but also his own, that of a traveller who has to make his paths more passable; so he worked in a way that the branches he used as a bridge between one tree and another were always saved, and gained strength from the suppression of the others (142)
[42] Cosimo look at the world from the tree: everything was different seen from up there, and that was already an entertainment (15)

need to remark two things. Firstly, how Cosimo's world looks like depend on how he moves in it, as O'Regan and Noë would have it. Secondly, his capacity of seeing the world differently gives Cosimo pleasure. This pleasure functions as a motivational factor for Cosimo to maintain his way of moving, pointing forward to the emergent normativity of his sensorimotor networks.

Some time after Cosimo's ascent into the trees, Biagio tells, in vivid detail, how Cosimo meets, fights and defeats a fierce forest cat. This first meeting with the dangers of nature can be read as showing how Cosimo has established strong sensorimotor networks and how this in turn has created a normativity. Just before his encounter with the cat, we are given access to the flow of Cosimo's movements as we follow him from the ground, racing through the trees. I have put the motion verbs in italics to highlight just how much movement this short passage contains.

> Lo vedevamo *correre* (se la parola correre ha senso tolta dalla superficie terrestre e riferita a un mondo di sostegni irregolari a diverse altezze, con in mezzo il vuoto) e da un momento all'altro pareva che dovesse *mancargli il piede* e *cadere*, cosa che mai avvenne. *Saltava*, *muoveva* passi rapidissimi su di un ramo obliquo, *s'appendeva* e *sollevava* di scatto a un ramo superiore, e in quattro o cinque di questi precari zig-zag era *sparito* (Calvino: 131, my italics)[43]

The high number of motion verbs shows how Cosimo's world is made up of movements. Most of these movements are sudden and highly skilled, and importantly, highly dependent on the physical surroundings. Each verb in italics is dependent on the branches: Running depends on the resistance of the branches, falling depends on the empty space between these branches, jumping and moving depend on the sloping branches, and finally hanging, raising oneself and disappearing depend on the different vertical layers of branches. Through Biagio's description, we see how Cosimo has developed highly skilled sensorimotor networks, and how these are very tightly coupled to his surroundings. However, at the same time as Cosimo has a need to master his displacements, he also wants to push his skills even further:

> Quel bisogno d'entrare in un elemento difficilmente possedibile che aveva spinto mio fratello a far sue le vie degli alberi, ora gli lavorava ancora dentro, malsoddisfatto, e gli

[43] We saw him run (if the world *run* makes sense removed from the surface of the earth and transported to a world of irregular supports at different heights, with a void in between), and at any moment it seemed that he might miss his footing and fall. It never happened. He leaped, he moved rapidly along a slanting branch, hung from it and suddenly rose to a higher branch, and with four or five of these precarious zigzags had disappeared (64-65)

> comunicava la smania d'una penetrazione più minuta, d'un rapporto che lo legasse a ogni foglia e scaglia e piuma e frullo (Calvino: 131-132)[44]

I suggest that this 'need' to enter even further into this difficult element can be seen to show the precariousness of Cosimo's sensorimotor networks that he has established in the trees. Without maintaining them, that is, without moving through the trees, his sensorimotor networks will eventually perish. Thus, we see how a normativity establishes itself. The flow of movements through the trees and the need for an even closer and deeper coupling to these trees, all point to a strong motivation of maintaining his sensorimotor networks in the trees.

Then, Cosimo sees the cat, and the love for his way of life, that is, his sensorimotor mastery of the trees, is put to the test. At first, Cosimo is frightened stiff: "L'immagine del gatto, appena vista scostando il ramo, restava nitida nella sua mente, e dopo un momento Cosimo era di nuovo tremante de paura. Perché quel gatto, in tutto uguale a un gatto, era un gatto terribile, spaventoso, da mettersi a gridare al solo vederlo" (Calvino: 132)[45]. Cosimo understands the size of the threat: "[T]utto questo [the different horrible traits of the cat] gli fece capire di trovarsi davanti al più feroce gatto selvatico del bosco" (Calvino: 133)[46]. And so, the battle begins. First the two adversaries find themselves in close coordination while waiting each other out:

> Era là, rattratto, ne vedeva la pancia dal lungo pelo quasi bianco, le zampe tese con le unghie nel legno, mentre inarcava il dorso e faceva: fff... e si preparava certo a piombare su di lui. Cosimo, con un perfetto movimento neppure ragionato, passò su di un ramo più basso. Fff...fff...fece il gatto selvatico, e ad ognuno dei fff...faceva un salto, uno in là uno in qua, e si ritrovò sul ramo sopra Cosimo. Mio fratello ripeté la sua mossa, ma venne a trovarsi a cavalcioni del ramo più basso di quel faggio (Calvino: 133)[47]

In the preliminaries to battle, we see how Cosimo and the cat engage each other. Just as the guided missile of O'Reagan and Noë, Cosimo and the cat seem to rely on sensorimotor

[44] That need to enter an element difficult to possess which had driven my brother to make his the ways of the trees was now working in him again, unsatisfied, and communicated to him the desire for a more detailed penetration, a relationship that would bind him to every leaf and scale and feather and flutter (65)

[45] The image of the cat, barely glimpsed by shifting the branch, remained clear in his mind, and after a moment Cosimo was again trembling with fear. Because that cat, in every way just like a cat, was a terrible, frightening cat, the mere sight of which might cause you to scream (66)

[46] From all this [the different horrible traits of the cat] he understood that he was facing the fiercest wild cat in the forest (67)

[47] It was there, contracted; he saw the belly with its long, almost white fur, the paws tensed with nails in the wood, while it arched its back and went *fff*… and certainly was preparing to pounce. Cosimo, with a perfect yet not even thought-out movement, got to a lower branch. *Fff*…*fff*… went the wild cat, and at each of those *fff* sounds it made a leap, one here, one there, and landed on the branch above Cosimo. My brother repeated his move but found himself straddling the lowest branch of that beech (67)

contingencies to follow each other, only it is the cat, and not Cosimo, who is the missile. The protraction of the claws into the wood and its curving of its back is the beginning of a tightly coordinated dance; the cat moves, and thus Cosimo moves with it. Through this sensorimotor coupling, Cosimo is pushed further and further down between the branches and the two are quickly approaching ground level. At this point, Cosimo has not stayed for too long in the trees and his odds of defeating the cat would probably be more in his favour at solid ground. Should he jump down to the ground to better defend himself? Or should he stay in the trees at all costs, maintaining his choice to never descend from them? Cosimo is drawn between the two: "[I]n lui scontrassero due istinti – quello naturale di porsi in salvo e quello dell'ostinazione di non scendere a costo della vita [...]" (Calvino: 133)[48]. Seen in an enactivist framework, Cosimo's normativity, tied to his arboreal sensorimotor networks, is so strong that he wants to sustain these links at all costs. As he struggles to make up his mind, the cat attacks. Luck smiles at Cosimo, and his indecision results in him making a move which surprises the cat. Cosimo sees his chance and kills the cat in one decisive blow. This victory binds Cosimo even closer to his choice: "[O]ra sa che strazio è vincere, e sa che è ormai impegnato a continuare la via che ha scelto e non gli sarà dato lo scampo di chi fallisce" (Calvino: 134)[49]. I propose that this scene can be read as showing how Cosimo's sensorimotor networks have created a very strong normativity. He is willing to risk his life in order to maintain these networks which make up his arboreal existence, and when he succeeds in doing so, this strengthens these networks even further.

However, normativity in the account of Di Paulo, Buhrmann and Barandiaran is not the only effect of these networks. They also give sense to the world according to this normativity, that is, one perceives the objects in the world according to how they relate to the maintenance of one's sensorimotor networks. In the following passage, we see how Cosimo understands his world with his full sensorimotor apparatus and that this world obtains sense according to his movements:

> Gli olivi, per il loro andar torcendosi, sono a Cosimo vie comode e piane, piante pazienti e amiche, nella ruvida scorza, per passarci e per fermarcisi, sebbene i rami grossi siano pochi per pianta e non ci sia gran varietà di movimenti. Su un fico, invece, stando attento che regga il peso, non s'è mai finito di girare; Cosimo sta sotto il padiglione delle foglie, vede in mezzo alle nervature trasparire il sole, i frutti verdi gonfiare a poco a poco, odora il lattice che geme nel collo dei peduncoli. Il fico ti fa

[48] Two instincts clashed – the natural one of getting to safety and the obstinate one if not descending, at the cost of his life (67)
[49] Now [he] knows what torture it is to win, and knows that he is now committed to continue the life he has chosen and will not be granted the escape of failure (68)

> suo, t'impregna del suo umore gommoso, dei ronzii dei calabroni; dopo poco a Cosimo pareva di stare diventando fico lui stesso e, messo a disagio, se ne andava. Sul duro sorbo, o sul gelso da more, si sta bene; peccato siano rari (Calvino: 152)[50]

This is how Cosimo's world of trees looks like. Every tree has meaning according to his sensorimotor networks which take him from one tree to another at great speeds and with great control. Even the smallest details of the trees receive a sensorimotor meaning. Their tactile sensation, the feeling of the bark's texture, is imbued with meaning: "Amava anche i tronchi bugnati come ha l'olmo, che ai bitorzoli ricaccia getti teneri e ciuffi di foglie seghettate e di cartacee samara; ma è difficile muovercisi perché i rami vanno in su, esili e folti, lasciando poco varco" (Calvino: 152-153)[51]. Perception and sense-making thus come together, with movements as the common base for both. Cosimo perceives the trees according to how they respond to his movements and thus they receive their meaning from the support they provide to his sensorimotor networks. Down to the smallest detail, every aspect of the trees he lives in receives a sense as it is coupled with Cosimo's incessant flow of movements.

These descriptions of the tactile details lead us to the narrator of Cosimo's story, Biagio. It is thanks to him that the reader is given access to these details. What then does these details say about Biagio's style of writing? Roland Barthes famously examined the function of the similar type of small details in an essay called "L'Effet du réel" in 1968. Barthes examines a novel by Flaubert and Michelet's history of the French revolution and is puzzled when he encounters certain details, a barometer and a small door, which "aucune fonction (même la plus indirecte qui soit) ne permet de justifier : ces notations sont scandaleuses[…]" (Barthes 1968: 84)[52]. The solution to this scandalous problem lies in the meaninglessness itself. For Barthes, since the details have no function, this means that they have to signify reality: "[L]e baromètre de Flaubert, la petite porte de Michelet ne disent finalement rien d'autre que ceci : *nous sommes le réel* […]" (Barthes 1968 : 88, author's italics)[53]. Reality is rich in details, and

[50] The olive trees, because of the way they twist, are for Cosimo comfortable and gentle paths, patient and friendly trees, with their rough bark, to pass through and to stop in, although each tree has only a few large branches and there is not a great variety of movements. In a fig, on the other hand, if you pay attention to whether it will hold your weight, there is no end of turnings; Cosimo sits under the pavilion of leaves, he sees the sun shining through their veins, the green fruit slowly swelling, he smells the latex oozing in the neck of the stems. The fig makes you its own, saturates you with its sticky liquid, with the buzzing of the wasps; after a while it seemed to Cosimo that he was becoming a fig himself, and, growing uneasy, he left. The hard service tree and the mulberry are comfortable; too bad they are rare (94)

[51] He also loved rusticated trunks, like the elm's, whose knots sprout tender shoots and clumps of serrated leaves and papery samaras; but it's hard to climb in an elm, because the branches go up, slender and leafy, leaving little room for passage (95)

[52] No function (as indirect as it may be) allows to justify: these notations are scandalous (my translation)

[53] Flaubert's barometer and Michelet's small door in the end say nothing else than this: *We are reality* (my translation)

when writers insert seemingly meaningless details into their stories, this is a way to create an illusion of representing reality. *Il Barone rampante* is sprinkled with this kind of details. We have already seen Cosimo's toilet facilities, the different tree types, the texture of the trees, and numerous other details, which for Barthes might function as a claim to reality. Yet, I suggest that, even though, in a certain manner, they do aim to portray reality, Biagio's detailed descriptions function quite differently than Flaubert's barometer in Barthes' account.

I propose, that instead of creating an impression of describing a complete reality by expounding detail after detail, as Barthes would have it, Biagio writes in a cognitively realistic manner. His reason for describing all these details of bark and branches could simply be that this is what Cosimo sees. As we have seen, all the different trees have different meanings to Cosimo in connection with how they relate to his movements. This sensorimotor meaning lies exactly in the small differences; in the different texture of the bark, the compliance of the branches and the height of its crowns. If Biagio did not describe these tactile elements, it would be much harder to understand Cosimo's sense-making. Together with the action descriptions, Biagio shows us through his writing what Cosimo demonstrates in his movements: Cosimo's arboreal world has meaning according to how he moves.

I propose then, that *Il Barone rampante* can be seen as a sensorimotor *Bildungsroman*. My claim is that Calvino's novel shows how Cosimo emancipates himself from his family in the passage from childhood to adulthood. He gains independence and gives his world meaning. By understanding this novel in an enactivist framework, I have read this process as taking place through Cosimo's sensorimotor interactions with his surroundings, that is, in his smooth transitions between the trees. Through Biagio's rendering of the tactile details of Cosimo's world as well as by employing a high number of motion verbs, we are given access to Cosimo's interactions with the trees as well as his sense-making. Thus, Cosimo's life in the trees would not simply be an allegory for humans' need for independence. I have argued that Cosimo depends on the trees in a very concrete manner to gain this independence in form of his sensorimotor agency.

3.6 Embodied thought. Metaphors and mirror neurons

We have seen how Cosimo grows up by emancipating himself from his family and gaining what I claimed can be conceptualized as sensorimotor agency. In the second part, we now address the social dimension and see how Cosimo establishes himself as an integrated and valuable member of society without sacrificing his personal integrity. Moretti described the

Bildungsroman as a genre seeking a compromise between individual freedom and society's demands. I will claim that Calvino's novel rather imagines a synthesis between the two. The individual and its social and physical surroundings cannot in fact be separated. As we have seen, in my interpretation, Cosimo is both autonomous and at the same time dependent on his physical surroundings to make sense of his world. I will suggest that the way Cosimo moves in the trees can be mapped onto his intellectual and social interactions; his love life, his intellectual activity and his relationship with the different inhabitants of Ombrosa. Thus, from a happy relationship with his sensorimotor surroundings, Cosimo in turn extends this to form a happy relationship with his social surroundings.

To support this claim, I will leave a strict enactivist framework and draw on the work of linguist George Lakoff and philosopher Mark Johnson as well as the neuro-scientist Vittorio Gallese. Lakoff and Johnson, both together, and individually, have done a lot of work on the embodied basis of our abstract reasoning. In their ground-breaking work, *Metaphors We Live By*, first published in 1980, Lakoff and Johnson propose that the metaphors we use are not reducible to a sort of decoration meant to embellish our language. On the contrary, they constitute the groundwork of human language and thought: "[M]etaphor is pervasive in everyday life, not just in language but in thought and action. Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature" (Lakoff and Johnson: [1980] 2003: 3). As an example, the authors give the conceptual metaphor of ARGUMENT IS WAR. The two concepts, argument and war, are certainly different, but through this metaphor, our notions of what an argument *is*, receives its structure from warfare: "Many of the things we *do* in arguing are partially structured by the concept of war. Though there is no physical battle, there is verbal battle, and the structure of an argument – attack, defence, counterattack, etc. – reflects this" (Lakoff and Johnson 2003: 4, authors' italics). In other words, metaphors change and structure the way we think in a fundamental way. Although they do not exclusively anchor abstract thought in the body, the two underline how the physical often serves to structure more abstract notions: "[W]e typically conceptualize the nonphysical *in terms of* the physical – that is, we conceptualize the less clearly delineated in terms of the more clearly delineated" (Lakoff and Johnson 2003: 59, authors' italics). For Lakoff and Johnson then, our abstract thinking is structured by other more basic concepts in the form of metaphors.

In *The Meaning of the Body* from 2007, Mark Johnson develops these deliberations on the embodied foundation of our thoughts. In the same vein as the enactivists, he proposes the need for what he calls an embodied theory of meaning:

> An embodied view of meaning looks for the origins and structures of meaning in the organic activities of embodied creatures in interaction with their changing environments. It sees meaning and all our higher functioning as growing out of and shaped by our abilities to perceive things, manipulate objects, move our bodies in space, and evaluate our situation. Its principle of continuity is that the 'higher' develops from the 'lower', without introducing from the outside any new metaphysical kinds (Johnson 2007: 11)

Johnson's central claim is that even our most abstract and advanced thoughts arise from basic forms of embodied interaction with the physical and social world. He draws on *Metaphors We Live By* and proposes that "what we call abstract concepts are defined by systematic mappings from body-based, sensorimotor source domains onto abstract target domains" (Johnson 2007: 177). Human beings use patterns of understanding which are developed for coping with the physical environment and re-apply them to our high-level forms of thinking.

In my discussion of *The Embodied Mind*, I referred to Johnson's earlier thoughts on containers functioning as "kinesthetic image schemas". In *The Meaning of the Body* he returns to our bodily experience of containers. We interact physically with different forms of containers on a daily basis, and so we have an embodied knowledge of how they work. This knowledge can then be mapped onto an abstract concept such as categories: "[C]onsider the common conceptual metaphor CATEGORIES ARE CONTAINERS, in which a conceptual category is understood metaphorically as an abstract container for physical and abstract entities" (Johnson 2007: 180). How a container works is something very basic for our sensorimotor interactions with our environment, we learn of the functioning of different containers at an early stage of development. Johnson's claim is that we use this basic physical concept to structure our intellectual experience of the world. The highly abstract capacity of humans to divide their world into different categories, is based on the most basic embodied interactions. This is what Johnson refers to as embodied meaning.

Johnson argues further that this claim is not only supported by linguistic, phenomenological and psychological evidence, which he discusses in depth, but also from findings in neuroscience. Johnson cites an article by Vittorio Gallese and George Lakoff called "The Brain's Concepts: The Role of the Sensory-Motor System in Conceptual Knowledge" from 2005. There, Gallese and Lakoff explain some of the data available in neuroscience and suggest how this supports a view of human cognition as embodied. According to these two, one of the keys for understanding how the brain works, is that the brain does not consist in a set of specialised modules, where each module would perform one specific task: "[W]e will argue that a key aspect of human cognition is *neural exploitation* –

the adaptation of sensory-motor brain mechanisms to serve new roles in reason and language, while retaining their original function as well" (Gallese and Lakoff 2005: 456, authors italics). Human cognition is multimodal according to the authors, the brain recycles the functions used to control the body to be used in more abstract functioning, for example language: "Accordingly, language is inherently multimodal in this sense, that is, it uses many modalities linked together – sight, hearing, touch, motor actions, and so on" (Gallese and Lakoff 2005: 456).

To show how this neural exploitation works, the authors draw on findings in studies of monkeys. In these studies, which are considered applicable to humans as well (See Molenberghs, Cunnington and Mattingley (2012) for a recent meta-analysis), scientists have discovered two classes of closely related neurons: the canonical neurons and the mirror neurons. The canonical neurons are related to the different concepts of physical actions. What makes these neurons so interesting is the fact that they fire not only when an action schema is activated (the authors use the action of grasping as their example), but also when an object that *can* be grasped is perceived, without actually performing this task (Gallese and Lakoff 2005: 461). Mirror neurons have similar abilities, they fire not only when performing an action, but also when the monkey observes someone else performing the same action (Gallese and Lakoff 2005: 462). The canonical and the mirror neurons indicate a very strong link between imagined and actual physical actions. The brain is using the circuits originally made for bodily actions, and then recycles them to be used in abstract imagery and concepts, such as imagining someone grasping a cup or thinking about what grasping really is. Human thinking is therefore embodied: "These data altogether show that typical human cognitive activities such as visual and motor imagery, far from being of a disembodied , modality-free, and symbolic nature, make use of the activation of sensory-motor brain regions" (Gallese and Lakoff 2005: 464).

But what does all this have to do with Cosimo? How can mirror neurons and our metaphorical and embodied way of thinking help us understand the fictional story of the baron in the trees? As I have suggested earlier, read as a *Bildungsroman*, *Il Barone rampante* is divided into two parts. In the first part Cosimo mastered life in the trees. He learnt how to move in them, adjusted his environment to suit his needs, and fought for his existence with the forest cat. However, just reaching independence is not enough, and so Cosimo turns to the world that surrounds him. The second part of Cosimo's *bildung* centres around Cosimo's relations to other human beings and his social milieu, both locally and on a European scale. He falls in love with Viola and experience how rewarding as well as how difficult the

relations with other people can be. He reads immensely, interacts with leading intellectual figures and is deeply engaged in the political events of his century. However, he also finds the time for more practical issues, and engages with the different artisans who work around his hometown Ombrosa. My claim is that we can use the idea that human cognition is founded in basic physical concepts to understand this second part of Cosimo's *bildung*. I will suggest that Cosimo maps his physical interactions with the trees unto the world that surrounds him, using them to structure his understanding of the world.

In what follows, I am not going to provide a full catalogue of what embodied metaphors or sensorimotor interactions that Cosimo uses to understand each aspect of the world. This would be an interesting endeavour in itself, but in this context, there is simply not enough space for such an undertaking. My goal will rather be to show that when Cosimo turns to the world, he does so by building on his already established sensorimotor networks. In the following pages, I will first analyse how the love relationship between Viola and Cosimo is understood differently by the two lovers, and how this can be seen as a consequence of their different sensorimotor surroundings; Cosimo in the trees, and Viola at horseback. Secondly, I will analyse Cosimo's intellectual engagement as well as his artisanal and local interactions in the same embodied framework. The analysis of Cosimo's embodied thinking aims to show how Cosimo draws on his sensorimotor interactions to understand his social environment in a way that enables his successful formation into a fully integrated member of society.

3.7 Love up high. Cosimo and Viola

In Cosimo's stormy and passionate relationship with Viola, the ways in which the lovers move metaphorically map on the development of their love. In an early conversation between Cosimo and Viola, still only children, we see the first example of how this sensorimotor love-affair works. Cosimo talks to Viola who is sitting in a swing, tied to the tree that Cosimo sits in. They discuss the difference between the world in the trees and the one on the ground: "L'altalena è tua, – stabilì Cosimo, – ma siccome è legata a questo ramo, dipende sempre da me" (Calvino: 102)[54]. This will be how Viola is experienced by Cosimo; tied to his world, but never fully a part of it. On one side, this is part of the literary techniques Biagio uses to tell the tale. He foreshadows the future courtship through the metaphorical mapping of spatial and personal relationships. However, the way Biagio construes this first meeting can also be read as pointing to how Cosimo himself comes to understand this relationship in the same way

[54] The swing is yours, Cosimo confirmed, but since it's tied to this branch it's my dependent (24)

through the complementary perspective of meaning-making through sensorimotor networks. This contrast between life on the ground and in the trees is the main tension which drives their relationship, and, as I will show, it can be said to function as an embodied base which structures the lovers' understanding of themselves. However, after their first meeting on the swing, the two will have to endure a separation. Shortly after this first meeting, Viola is sent away from Ombrosa to go to school.

When they meet again some ten years later, before they actually recognise and talk to each other, the embodied dimension of the language already expresses the relation between the two stubborn and independent lovers. The day of their reunion, Cosimo, as always, is in the trees, and Viola in what is her favourite element; at horseback. First, Cosimo spots a rider on a black horse. He quickly understands that it is a woman, and he might already begin to recognize the independent-minded Viola, even if he does not spell it out: "era un'amazzone, correva a briglia sciolta ed era bionda" (Calvino: 235)[55]. Following the mysterious women is two other riders, which later turn out to be Viola's servants trying to follow her wild ride. The woman on the black horse seems to be completely in control, she plays with her followers, riding back and forth. Without realising it at first, Cosimo begins to connect the galloping amazon to his memory: "Ora ogni cosa andava veramente per il suo verso: l'amazzone galoppava nel sole, sempre più bella e sempre più rispondente a quella sete di ricordo di Cosimo [...] (Calvino: 236)[56]. Slowly she comes closer, through a series of zig-zag movements across the field that are incomprehensible to Cosimo and her followers. Finally, she reaches the place where Cosimo sits, he sees her face, and finally recognises her: "e tutto tutto tutto ricordava la ragazzina vista a dodici anni sull'altalena il primo giorno che passò sull'albero: Sofonisba Viola Violante d'Ondariva" (Calvino: 236)[57]. However, before seeing her face, Cosimo had already understood who she was: "Questa scoperta, ossia l'aver portato questa fin dal primo istante inconfessata scoperta al punto di poterla proclamare a se stesso riempì Cosimo come d'una febbre" (Calvino: 236)[58]. The recognition of Viola passes first through her movements at horseback: her reins hanging loose, fooling him and her followers, showing her independent and playful personality to Cosimo. He recognises her first on her movements, without understanding consciously who she is. I suggest that this recognition

[55] It was an amazon; she galloped at full speed and she was fair-haired (21)
[56] Now everything really was going in the right way: the amazon galloped in the sun, increasingly beautiful and increasingly responsive to Cosimo's thirst for memory (214)
[57] And all all all of it recalled the girl seen at the age of twelve on the swing the first day he spent in the trees: Sofonisba Viola Violante d'Ondoriva (215)
[58] This discovery, or rather, his having brought that discovery, unconfessed since the first instant, to the point where he could proclaim it to himself, filled Cosimo as if with a fever (215)

scene serves to underline my reading of the two lovers' embodied interactions as the foundation of their relationship.

Viola at horseback is hard to catch for Cosimo as he runs through the trees. The sensorimotor pattern of distance and closeness, makes Cosimo's memory of her flame up:

> L'amazzone dirigeva il cavallo un po' in un verso e un po' in un altro, e Cosimo ora la pensava già lontana e irraggiungibile, ora saltando d'albero in albero la rivedeva con sorpresa riapparire nella prospettiva dei tronchi, e questo modo de muoversi dava sempre più fuoco al ricordo che fiammeggiava nella mente del Barone (Calvino: 237)[59]

Just as he recognised her by her movements, it is the way that Viola moves that enflames his memory. One moment Viola is swinging away from Cosimo, the other towards him. However, even if Cosimo now recognises Viola and has reignited his love for her through her movements, the direction of these movements is still hard to understand for him. Nevertheless, while the others soon lose track of her, Cosimo slowly begins to see a pattern in her erratic movements. After observing her without succeeding in making contact, he begins to understand where she is going:

> Ora, avveniva che tutti questi andirivieni e inganni ai cavalieri e giochi si disponessero attorno ad una linea, che pur essendo irregolare e ondulata non escludeva una possibile intenzione. E indovinando quest'intenzione, e non reggendo più all'impresa impossibile di seguirla, Cosimo si disse: 'Andrò in un posto che se è lei ci verrà. Anzi, non può essere qui che per andarci' (Calvino: 237)[60]

Although he cannot follow her from the trees, Cosimo slowly understands her intentions based on the irregular pattern of her movements on horseback.

I propose that this reunion scene between Cosimo and Viola illustrates how their relationship can be read as based on their embodied interactions with their physical surroundings. Confirming the pattern already established in the first meeting in the swing, this reunion further structures how Cosimo understands his relationship with Viola. He tries to follow her, but her wild movements are too much to handle for him. Even though he manages to guess where she is going, he cannot follow her from the trees. This is exactly how their

[59] The amazon guided her horse this way and that, and now Cosimo thought she was already far away and unreachable, now, leaping from tree to tree, he saw her, to his surprise, reappear in the perspective of the trunks, and this way of moving fuelled the memory that blazed in the baron's mind (216)

[60] Now it happened that all those comings and goings and games and tricks played on the horsemen were disposed around a line, which although it was irregular and wavy did not exclude a possible intention, and Cosimo, unable to endure the impossible enterprises of following her, said to himself, 'I will go to a place where she'll come if it's her. In fact, she can be here only to go there' (216)

relationship will unfold, as two very different ways of moving and thinking encounter each other. In the end, the two are just too different, a horse cannot climb in the trees (even though Viola at one point succeeds in getting her horse up to the first branch (Calvino: 249)). Read as such, Biagio's rendering of this scene does not only describe their different movements as an allegory for their different characters. Rather, he points to how their ways of thinking are based on so different forms of movements that their relationship is doomed from the beginning.

Before the relationship eventually comes to an end however, the two lovers are reunited and go on to experience a happy if tempestuous time. Their relationship is passionate and intense, something which shows in Viola's conception of love: "L'amore era per lei esercizio eroico: il piacere si mescolava a prove d'ardimento e generosità e dedizione e tensione di tutti le facoltà dell'animo. Il loro mondo erano gli alberi i più intricati e attorti e impervi" (Calvino: 244)[61]. For our purposes, it is highly interesting to see how they understand this heroic love through moving in the trees. Firstly, the stage for these demonstrations of their love is closely defined to the most knotty and twisted trees. Again, we see a high level of tactile detail, this time it can serve to underline how Cosimo's thinking is based on his sensorimotor interactions. The term 'intricato' has two meanings: it can designate both a tangled texture (in this instance, the bark) but can also mean 'complicated'. In the current framework, this points to how Cosimo maps sensorimotor concepts onto his abstract thinking. He understands the unpredictable Viola from what he has under his feet, the intricate and complicated pattern of the bark. Secondly, the courage and dedication that makes up Viola's heroic love, are also physically acted out by hazardous manoeuvres in the trees: "Là! – esclamava indicando un'alta inforcatura di rami, e insieme si slanciavano per raggiungerla e cominciava tra loro una gara d'acrobazie che culminava in nuovi abbracci" (Calvino: 244)[62]. We see that Cosimo expresses his love through his movements. I propose that these movements function not simply as a metaphor which serves to understand their relationship. It is rather the other way around. Their relationship is built from their very movements.

Another example of how their relationship is lived through their sensorimotor interactions is told after they have one of their big fights. First, Viola descends from the trees,

[61] For her, love was a heroic exercise: pleasure was mixed with proofs of daring, with generosity and dedication and tension of all the faculties of the mind. Their world was the most intricate and twisted and impassable trees (227)

[62] 'There', she exclaimed, pointing to a fork high up in the branches, and together they rushed to reach it, and a contest of acrobatics began between them that ended in new embraces (227)

and thus breaks their connection. She only speaks to her horse, but sends a strong message to Cosimo: "La seguiva fin sul palco più basso: – Viola, non te ne andare, non così, Viola… Lei ora parlava, ma al cavallo, che aveva raggiunto e slegava; montava in sella e via" (Calvino: 246)[63]. Cosimo begs her not to leave him like that, and especially so since descending from the trees makes her not only emotionally, but also physically unavailable. Cosimo follows her, each of them separately in their element: "Lei era galoppata via. Lui per i rami l'inseguiva" (Calvino: 246)[64]. Cosimo becomes desperate:

> Cosimo aspettava che tornasse, *a zig-zag* tra gli alberi. – Viola! Sono disperato! – e *si buttava* riverso nel vuoto, a testa in giù, *tenendosi* con le gambe a un ramo e *tempestandosi* di pugni capo e viso. Oppure si metteva a *spezzar* rami con furia distruttrice, e un olmo frondoso in pochi istanti era ridotto nudo e sguernito come fosse passata la grandine (Calvino: 246-247, my italics)[65]

As Viola leaves him for the ground, we can see from the verbs in italics how Cosimo's violent emotions are expressed in equally violent movements. In the earlier quotation describing Cosimo's movements through the trees, we saw how his movements were in interaction with the branches. As his feelings are spinning out of control, he zigzags from side to side, then suddenly falls down. He proceeds to fix his feet, but then his arms violently attack his face or the nearby elm. Seen in an embodied framework, this can be read as illustrating how Cosimo feelings are now interacting with his movements.

However, their fight ends suddenly. Viola is as hard to predict as she is to please, and from one moment to another she stops being angry with Cosimo and forgives him. This reconciliation is expressed by movements as much as words: "Di tutte le follie di Cosimo che pareva non l'avessero sfiorata, una repentinamente l'accendeva di pietà e d'amore. – No, Cosimo, caro, aspettami! – e saltava di sella, e si precipitava ad arrampicarsi per un tronco, e le braccia di lui dall'alto erano pronte a sollevarla" (Calvino: 247)[66]. The way Viola shows Cosimo that he is forgiven is by jumping from her element, the horse, into Cosimo's, the trees. Again, this example highlights how their quarrel can be understood and acted out

[63] He followed her to the lowest platform. 'Viola, don't go, not like that. Viola…' Now she was speaking, but to the horse, whom she had reached and untied; she climbed into the saddle and was off (229)
[64] She had galloped away. He followed her through the branches (230)
[65] Cosimo waited for her to return, zigzagging among the trees. 'Viola! I'm desperate!' And he jumped upside down into space, headfirst, holding on to a branch with his legs and hitting head and face with his fists. Or he began breaking branches with destructive fury, and a leafy elm in a few instants was bare, stripped as if a hailstorm had passed (230)
[66] Of all Cosimo's follies that apparently hadn't touched her, suddenly one would kindle in her pity and love. 'No Cosimo, dear, wait for me!' And she jumped out of the saddle and rushed to climb a trunk, and his arms, above, were ready to lift her up (230-231)

through their physical surroundings and how their movements can function as the basis of their understanding of each other.

At the moment of their break-up, the different sensorimotor networks of Cosimo and Viola are lined up to form a powerful framework for their last conversation, anchoring this break-up in the embodied nature of the relationship. After having had a big fight, Viola on horseback meets with Cosimo in the trees: "Prese il cavallo, andò verso il bosco. Cosimo era su una quercia. Lei si fermò sotto, in un prato" (Calvino: 260)[67]. As in their reunion scene previously discussed, they meet in a meadow, but this time the arboreal existence of Cosimo and Viola's free-roaming life on the horseback are just too different. The great open space of the meadow lying between them underlines the distance that separates them. Instead of trying to patch things up, Cosimo understands that his way of life is not compatible with Viola's: "Non ci può essere amore se non si è se stessi con tutte le proprie forze" (Calvino: 260)[68]. Viola leaves Ombrosa, never to return. Understood in an enactivist framework, Cosimo and Viola's love is tightly coupled to their different sensorimotor networks; Cosimo in the trees and Viola on horse. Viola is the only one who manages to really become a part of Cosimo's life. Yet, as in their first meeting, even if she is connected to the trees, she also has one foot on solid ground, or rather, on the stirrup of the saddle. As we saw in our discussion of embodied thinking, much points to that our embodied engagements with the physical world lie at the centre for our more abstract forms of thinking. Thus, we can understand how the differences between Cosimo and Viola end up being insurmountable. They act out and understand their relationship based on very different sensorimotor networks. And so, the two are simply too different: They move differently and thus they think differently.

3.8 Cosimo's intellectual and practical involvement in society

As I have suggested earlier, Cosimo's *bildung* is divided into two parts, one individual and one social. As we have just seen, I have read his single most important social interaction, the love-affair with Viola, through the interaction with his physical world that he established in the first part of his *bildung*. However, I propose that what I have referred to as Cosimo's sensorimotor networks, not only can serve to understand the basis for his love life, but also his other social and intellectual interactions. Now, we will see how Cosimo's understanding of both European politics and his involvement in the local community can be said to exploit his

[67] She took the horse and went into the woods. Cosimo was in an oak. She stopped below, in a meadow (249)
[68] There can't be love unless one is oneself with all one's strength (250)

sensorimotor understanding of his physical surroundings. Thus, I suggest, that building on his sensorimotor networks, Cosimo develops a positive relationship between him and the rest of society. In this relationship, no party exploits the other, on the contrary, both parties gain mutually. We will now see how Calvino's sensorimotor *Bildungsroman* lets the reader join in on a happy integration (which never becomes assimilation) of Cosimo into society.

We have already seen how Cosimo helped the farmers prune their trees, but that is only one of his many contributions to the local community. During a scorching hot summer, forest fires are ravaging southern Europe. Local criminals, for which Cosimo has caused trouble, are starting fires in the trees in order to steal wood and at the same time get rid of the bothersome tree dweller. In the process of battling these forest fires, Cosimo is central. To save his dear forest, he uses the advantages of his viewpoint from above. First, he contrives a system to help extinguish the fires from the trees: "Cosimo fece incetta di barilotti e li issò pieni d'acqua in cima alle piante più alte e situate in luoghi dominanti" (Calvino: 189)[69]. Further, he uses his overview of the forest to coordinate the measures being put into place by the different people working there: "[C]on Cosimo che sovrintendeva ai lavori dall'alto, costruirono delle riserve d'acqua in modo che in ogni punto in cui fosse scoppiato un incendio si sapesse dove far capo con le pompe" (Calvino: 189)[70]. Finally, Cosimo can act as a spotter since he is able to visually locate any fires before they start to spread: "[P]assava le notti tutto solo nel bosco di sentinella, su un albero come era sempre vissuto. Se mai vedeva fiammeggiare un focolaio d'incendio, aveva predisposto sulla cima dell'albero una campanella, che poteva esser sentita di lontano e dar l'allarme" (Calvino: 190)[71]. When Cosimo uses his viewpoint from the treetops to help out, this serve to highlight how he builds upon his sensorimotor networks in order to contribute to the local community.

Later, this viewpoint from above also enables Cosimo to help the villagers fight off several hungry packs of wolves. At the time these wolves start showing up in the forest of Ombrosa, Cosimo seems to have gone mad after breaking up with Viola. It is the pressing danger that wakes him up from his madness: "Lui restava con gli occhi semichiusi, come se non capisse o non gli importasse niente. Invece, a un tratto alzò il capo, tirò su dal naso e disse, rauco: – Le pecore. Per cacciare i lupi. Vanno messe delle pecore sugli alberi"

[69] Cosimo bought up barrels and, having filled them with water, hoisted them to the tops of the tallest trees situated in commanding places (146-147)
[70] With Cosimo superintending the works from above, [they] constructed reservoirs in such a way that at every point where a fire might break out they would know where to go with the pumps (147)
[71] He spent the nights alone in the forest, keeping watch in a tree, as he had always lived. If he ever saw a locus of fire flare up, he had a bell set up at the top of a tree, which could be heard from a distance and would give the alarm (148-149)

(Calvino: 266)[72]. The others are at first sceptical, but Cosimo's plan works perfectly. Dressed as a sheep himself and armed with his gun, Cosimo picks off the wolves, drawn to the trees by the scent of sheep, one by one. His plan is a success and he becomes a hero for the inhabitants of Ombrosa: "Nessuno parlava più del Barone di Rondò come d'un matto, ma tutti come d'uno dei più grandi ingegni e fenomeni del secolo" (Calvino: 268)[73]. That Cosimo has access to solutions not available to those on the ground, like spotting fires or shooting wolves, might seem trivial. But understood in an enactivist framework of embodied thinking, I claim that Cosimo can be seen to solve these problems not only because being in the trees gives him other possibilities, but because his way of understanding the world is in fact built upon his movements in the trees. He helps extinguish the fires by exploiting his view from above and chases the wolves by luring them from the trees. This is very important to Cosimo's integration into society. His arboreal way of perceiving the world makes him useful and thus helps him connect to the larger society that surrounds him.

However, Cosimo does not only engage himself in society in a practical manner. He also engages vividly with the new ideas flying around at the time. Cosimo is a free thinker which embraces new and radical thoughts coming from the enlightenment philosophers. He exchanges letters with some of the leading contemporary thinkers (Calvino: 184) and reads and studies passionately (Calvino: 181). In Cosimo's meeting with another group of tree dwellers, we can see how his free-thinking might be related to his existence in the trees. After living in the trees for some time, Cosimo hears of a neighbouring village which also has, not only one, but a whole group of people residing in the treetops. He decides to visit them. They turn out to be Spanish nobles, exiled from their homeland, and who, because of a juridical technicality, are forced to live in the trees, waiting to return home. The contrasts between them and Cosimo allow us to gain some insights about Cosimo's intellectual attitudes, and how his thinking can be understood as based on his sensorimotor networks. Being exiled, the Spaniards are not there of their own choice, as Cosimo is, and so they do not adapt, rather, they try instead to change the trees to suit their former lifestyle. The women are sitting on embroidered cushions and the men on saddles, as they try to make everything as it is back home: "Tutti questi hidalghi e queste dame serbavano, pur nelle ineliminabili scomodità del

[72] His eyes remained half closed, as if he hadn't understood or it didn't matter. But suddenly he raised his head, sniffed, and said hoarsely, 'Sheep. To drive out the wolves. They should put sheep in the trees' (257)
[73] People no longer spoke of the Baron di Rondò as a madman, but all as one of the greatest minds and phenomena of the century (260)

loro soggiorno, atteggiamenti abituali e composti" (Calvino: 212)[74]. And, being rich, they eventually end up paying their way out of their exile in the trees. Industrious locals help them with what they need to live and charge them for every service rendered. Thus, they sitt still: "Gli esuli, da parte loro, non muovevano un dito in tutta la giornata" (Calvino: 211)[75]. As we shall see, their lack of physical movements is reflected by their lack of intellectual vivacity.

Cosimo stays with these Spaniards for almost a year. He helps them facilitate their life in the trees and falls in love with the daughter of their leader. Cosimo also tries to introduce the Spaniards to some of the new ideas in the air around this time. But, with the exception of a count, they are not interested in other philosophy than the daring bits of a Voltaire poem: "Gli altri hidalgi, niente, sebbene qualcuno di nascosto da Padre Sulpicio chiedesse a Cosimo in prestito la *Pulzella* per andarsi a leggere le pagine spinte" (Calvino: 217)[76]. The Spaniards are as immobile intellectually as they are physically. In the aftermath of a sword fight between a narrow-minded Jesuit priest, accompanying the nobles, and the free-thinking Cosimo, the unwillingness of the nobles to challenge their habitual way of thinking becomes especially evident: "Mettere a tacere un fatto così grave sarebbe stato impensabile in qualsiasi altra comunità, non in quella, con la voglia che avevano di ridurre al minimo tutti i pensieri che s'affacciavano alle loro teste" (Calvino: 218)[77]. The Spaniards simply pretend nothing has happened; their minds are as inactive as their way of life.

As we saw with Viola, different sensorimotor engagements can result in very different ways of thinking. This is also the case with Cosimo and the Spanish nobles. The latter sit still, and so their minds do the same. As for Cosimo, as we have seen, he is very innovative and active in his inventions, both to help himself and his community. And, as I will discuss more in detail in what follows, he also energetically engages himself intellectually, and throws himself into the contemporary discussion (and putting into action) of the new progressive ideas of his time. I suggest then that Cosimo, as do the Spaniards, engages intellectually in the same way as he moves; in an incessant flow of movement, jumping from idea to idea, always open to new ways of thinking. The leader of the Spaniards, Don Frederico, in his peculiar mix of Spanish and Italian, expresses this in a striking way. After having offered his daughter in marriage to Cosimo, an offer he refuses, Don Frederico states his hope that Cosimo will grow

[74] In spite of the unavoidable discomforts of their sojourn, all these hidalgos and these ladies preserved their habitual dignified attitudes (180)
[75] The exiles, for their part, didn't lift a finger all day long (179)
[76] The other hidalgos nothing, although some, unbeknown to Father Sulpicio, asked Cosimo if they could borrow *The Maid* so they could read the racy pages (188)
[77] Passing over in silence an action so serious would have been unthinkable in any other community, but not in that one, with the desire they had to reduce to the minimum all thoughts that surfaced in their minds (189)

out of his youthful ideas and become a worthy member of their family: "*Oh, es joven, es joven*, le idee vanno e vengono, *que se case*, che si sposi e poi gli passerà, venga a Granada, venga" (Calvino: 219, author's italics)[78]. Unknowingly, Don Frederico expresses exactly what intellectual activity is for Cosimo: coming and going, from idea to idea, and thereby the very opposite of the Spaniards' approach.

The practical involvement in local life and Cosimo's enlightenment ideas come together towards the end of the novel, when Ombrosa joins in on the spirit of the time and rebels against the ancient order. Cosimo stages and re-enacts the main events of the French revolution by using a tree: "Cosimo spiegava e recitava tutto saltando da un ramo all'altro, e su un ramo faceva Mirabeau alla tribuna, e sull'altro Marat ai Giacobini, e su un altro ancora re Luigi a Versaglia che si metteva la beretta rossa per tener buone le comari venute a piedi da Parigi" (Calvino: 277)[79]. Keeping with his embodied way of thinking, Cosimo uses the branches to organise his telling of the events in Paris, as well as a method for transmitting these complicated events to his less educated co-villagers. Cosimo even organises Ombrosa's own *Cahiers de doléance* where the inhabitants write (or draw if they cannot write) their complaints, but also their wishes. Thus, a revolutionary mood is building up, centred around Cosimo. In this ambience, the harvest is approaching, and with it, the arrival of the hated tax-collectors.

As the harvest is under way, furtive messages are going around from door to door: "L'uva è matura – È matura! Eh già! – Altro che matura! Si va a cogliere!" (Calvino: 278)[80]. So runs the incitement to revolt through all of Ombrosa, coded by using metaphors from grapes hanging from the trees. As the tension is rising to new levels, the guards meant to ensure the collecting of taxes are getting nervous. Cosimo is using the vines to distribute instructions to the workers: "Cosimo, coi suoi passi da gatto, aveva preso a camminare per i pergolati. Con una forbice in mano, tagliava un grappolo qua e un grappolo là, senz'ordine, porgendolo poi ai vendemmiatori e alle vendemmiatrici là di sotto, a ciascuno dicendo qualcosa a bassa voce" (Calvino: 279)[81]. Seen in an enactivist framework, Cosimo can be said to organise the rebellion by exploiting his sensorimotor interactions. The trees provide the

[78] Oh, *es joven, es joven*, ideas come and go, *que se case*, let them marry and it will pass, come to Granada, come (191)
[79] Cosimo explained and performed everything, jumping from branch to branch, and one he played Mirabeau at the trial, and on the other Marat to the Jacobins, and on yet another King Louis at Versailles putting on the red hat to placate the old women who had come on foot from Paris (271)
[80] 'The grapes are ripe!' 'They're ripe! Ah yes!' 'I'll say ripe! They're going to pick!' (273)
[81] Cosimo, with his catlike steps, had begun walking over the trellises. With a pair of scissors in hand, he cut a cluster here and a cluster there, in no order, offering them to the harvesters, men and women, below, to ech saying something in a low voice (274)

code words for the rebellion as well as the practical way of distributing them. In the end, with the French revolutionary song *Ça ira!* sung out loud, the rebellion starts. The tax collectors are sent home empty handed, stained from top to toe with grape juice, after being thrown headlong in barrels of crushed grape. As with stopping the fires and chasing the wolves, Cosimo's contributions to this small-scale revolution have been made possible by building upon his movements through the trees.

Not much later the military steps in to reinstate order, but before that, the villagers celebrate their victory in a way fitting to its arboreal organisation. They erect a 'freedom tree', in the fashion of the French revolutionaries:

> Misero su anche l'Albero della Libertà, per seguire la moda francese; solo che non sapevano bene com'erano fatti, e poi da noi d'alberi ce n'erano talmente tanti che non valeva la pena di metterne di finti. Così addobbarono un albero vero, un olmo, con fiori, grappoli d'uva, festoni, scritte: '*Vive la Grande Nation!*'. In cima in cima c'era mio fratello, con la coccarda tricolore sul berretto di pel di gatto, e teneva una conferenza su Rousseau e Voltaire, di cui non si udiva neanche una parola, perché tutto il popolo là sotto faceva girotondo cantando: *Ça ira!* (Calvino: 280-281, author's italics)[82]

Read in the current framework, Cosimo's role in the Ombrosa rebellion can be construed as built upon his sensorimotor capacity of moving through the trees. Cosimo uses this foundation to understand the abstract ideas from enlightenment thinkers and to deploy these ideas into the small society of Ombrosa. It is thus fitting that Cosimo and the villagers seem to give priority to the less abstract aspects of their freedom tree. The explicit content of Rousseau and Voltaire's philosophical ideas cannot be heard, it drowns in the noise of the crowd. However, it can be seen; at the top of the tree is Cosimo, who embodies the new ideals through his arboreal existence which gives him freedom at the same time as he contributes to society.

However, after this rebellion, Cosimo's story is nearing the end. He is starting to feel old age and after some further adventures during the Napoleonic wars, it becomes apparent that he is dying. However, Cosimo refuses to leave the high ground of the trees. In fact, in an ending worthy of a sensorimotor *Bildungsroman*, Cosimo manages to hold his promise never to descend, even in death. A hot-air balloon, carrying two Englishmen is getting into trouble

[82] They even set up a Tree of freedom, to follow the French fashion; only they didn't really know how to make one, and then we had so many trees that it wasn't worth putting up a fake one. So they decorated a real tree, an elm, with flowers, bunches of grapes, festoons writings: '*Vive la Grande Nation!*' From treetop to treetop there was my brother, with the tricolor cockade on his cat-skin cap, and he delivered a lecture on Rousseau and Voltaire, of which not a word could be heard, because all the people below were dancing around and singing, '*Ça ira!*' (276-277)

when Cosimo lies at his deathbed. As the balloon descends towards him, Cosimo "spiccò un balzo di quelli che gli erano consueti nella sua gioventù, s'aggrappò alla corda, coi piedi sull'ancora e il corpo raggomitolato, e così lo vedemmo volar via, trascinato nel vento, frenando appena la corsa del pallone, e sparire verso il mare..." (Calvino: 301)[83]. Cosimo ends his life as he has lived it; with a jump, and so he maintains his sensorimotor networks to the very end.

Cosimo's story ends here, but the novel continues some paragraphs further. Biagio speaks here for himself, without Cosimo's story to lean on. In this last paragraph, Biagio seems to merge Cosimo's life in the trees with the activity of writing his story:

> Ombrosa non c'è più. Guardando il cielo sgombro, mi domando se davvero è esistita. Quel frastaglio di rami e foglie, biforcazioni, lobi, spiumi, minuto e senza fine, e il cielo solo a sprazzi irregolari e ritagli, forse c'era solo perché ci passasse mio fratello col suo leggero passo di codibugnolo, era un ricamo fatto sul nulla che assomiglia a questo filo d'inchiostro, come l'ho lasciato correre per pagine e pagine, zeppo di cancellature, di rimandi, di sgorbi nervosi, di macchie, di lacune, che a momenti si sgrana in grossi acini chiari, a momenti si infittisce in segni minuscoli come semi puntiformi, ora si ritorce su se stesso, ora si biforca, ora collega grumi di frasi con contorni di foglie o di nuvole, e poi s'intoppa, e poi ripiglia a attorcigliarsi, e corre e corre e si sdipana e avvolge un ultimo grappolo insensato di parole idee sogni ed è finito (Calvino: 302)[84]

Biagio's pen has run along with Cosimo. And as Cosimo, his pen has twisted itself, jumped over lacunas and stumbled through the pages of the book. Biagio even seems to blend his writing with Cosimo's running in the trees when the pen connects bundles of phrases with leaves and skies. This paragraph, seen in our enactivist framework, raises some questions about the nature of literary representations.

Previously, we discussed Barthes' reality effect, the way that literary language tricks us into believing that what is being described is real. I suggested that the details in *Il Barone rampante* are not meant to produce such an effect, but rather to show, in a cognitively realistic manner, how every tactile sensation of the trees is a part of how Cosimo perceives his world

[83] Made one of those leaps that were usual with him in his youth, grabbed the rope, with his feet on the anchor and his body huddled, and so we saw him fly away, dragged in the wind, barely breaking the course of the balloon, and disappear in the direction of the sea (305)

[84] Ombrosa is no longer there. Looking at the empty sky, I wonder if it really ever existed. That ornamentation of branches of leaves, forks, lobes, feathers, minute and without end, and the sky appearing only in irregular flashes and cutouts, maybe existed only because my brother passed there with the light step of a long-tailed tit, was an embroidery, made on nothing, that resembles this thread of ink, as I've let it run for pages and pages, full of erasures, of references, of nervous blots, of stains, of gaps, that at times crumbles into large pale grains, at times thickens into tiny marks resembling dotlike seeds, now twists on itself, now forks, now links knots of sentences with edges of leaves or clouds, and then stumbles, and then resumes twisting, and runs and runs and unrolls and wraps a last senseless cluster of words ideas dreams and is finished (306)

through his movements. When Biagio establishes a similarity between his writing and Cosimo's movements, it allows us to push this argument even further. In our previous discussion of canonical and mirror neurons, we saw that these fire both when interacting with the surroundings, but also when looking at someone moving or at some physical item that can be manipulated. Throughout the book, Biagio's has given us a rich access to both. We have followed Cosimo's wild run through the trees, and the tactile feel of his world has been rendered with rich detail. Thus, it might be that when reading Biagio's story of his brother, we are not so much representing Cosimo's movements in our minds, but rather we *re-enact* them. As Troscianko puts it: "When we imagine [as for example in a literary text], instead of looking at an internal array as if we were looking at the external world, we are activating the sensorimotor knowledge of what it is like to be looking at something" (Troscianko 2015: 90-91). Instead of seeing Cosimo's world, perhaps is it more accurate to say that that the reader *moves* in it. Thus, even though the trees of Ombrosa are no more, literary fiction could provide a less extreme alternative than leaving the ground to go live in the trees. By letting the readers move alongside Cosimo, they can be said to be given an embodied access to how Cosimo succeeds in dissolving the strict dividing line between individuals and their surroundings. I propose that, contrary to Moretti's account of the *Bildungsroman* where literature serves to represent the abyss that separates the individual and society, Biagio's ending seems to suggest instead that literary fiction can function to re-think this relationship in non-antagonistic manner. For Biagio and Cosimo, individuals and their physical and social surroundings are deeply interdependent.

3.9 A sensorimotor success-story. Cosimo, the trees and the others

Understood in an enactivist framework, we have seen Cosimo's life as built upon his embodied interaction with a rather unusual milieu: The trees. I have suggested here that we can consider Cosimo's ascent into the trees as a process of emancipation from his family and of forming a self which is based on the establishment of his own sensorimotor networks. Thus, Cosimo gains sensorimotor agency. Cosimo then builds upon this embodied foundation to understand the world around him and to successfully interact in it, with advantages for all parties involved. We now can appreciate how Calvino's novel succeeds in constructing an alternative to the gloomier outlook of Lukács and Moretti on the relationship between the individual and society. In Calvino's novel, this relationship is not a zero-sum game where freedom can be traded against a place in society. Cosimo strives to become independent, and succeeds, but this independence

never disconnects him from his surroundings. On the contrary, in my interpretation, it is his surroundings that enable this independence. Different from Unamuno's Manuel who remains entrapped in a model of cognition where individual and surroundings necessarily stand in conflict, Cosimo succeeds in forming a positive relationship to the world around him; he becomes an well-respected member of society while all the time retaining his autonomy.

4. Together facing the plague. Enactivist interaction and *La Peste*

Published two years after the end of the Second World War, Albert Camus' *La Peste* revolves around more solemn issues than Calvino's high-spirited baron. Here, instead of looking at how one single individual makes sense of his world, this time I will investigate how sense can be created collectively through interaction. Through the enactivist concept of 'participatory sense-making', I will examine how the plague that hits Oran, with time, causes a large-scale interaction between its inhabitants, which gradually strengthens during the horrible events that the plague brings with it. I will also argue that Camus' narrator, Rieux, describes this interaction in a cognitively realistic manner.

4.1 Allegory, testimony or philosophy?

Set in the Algerian coastal city of Oran, sometime in the nineteen forties, *La Peste* depicts how its citizens get thrown headlong into a battle of life and death when they are faced with a horrible plague. Published so close to the disastrous events of the Second World War, the novel was immediately read as an allegory on the senseless killing during the war years but also as the story of those who resisted these crimes. Thus, in the first decades after its publication, the discussion of *La Peste* revolved mainly around questions regarding the novel's relationship with these events. However, in more recent work on the novel, the discussion has opened up to ways of reading that are less directly connected with the war (Krapp 1999: 655-660). Although there are many parallels to the Second World War (some examples are the number of deaths, the resistance in form of the volunteer group and the mass graves), I consider that there is more to this novel than just a fictionalised account of the French resistance. The allegoric framework arguably does not exhaust the possible interpretations. My claim is that, read through enactivist lenses, this novel can function as a portrayal of humans coming together to create a shared project. The narrator and main protagonist, Rieux, describes how the citizens of Oran participate in a large-scale process of cooperating (and sometimes obstructing) towards a greater goal. The war that Camus lived through, certainly showed the negative potential of cooperating. The Second World War was a terrifying display of mass mobilisation in the service of war. Yet, through his participation in the French resistance, Camus also experienced how humans can cooperate to do good in the face of danger. I will argue that *La Peste* revolves around the positive possibilities of human interaction.

In his article "Time and ethics in Albert Camus' *The Plague*", John Krapp claims that what is interesting in Camus' novel cannot be boiled down to some sort of moral message but must rather be seen as the on-going process of constructing such an exchange on right and wrong. Krapp reads *La Peste* as a moral dialogue, where there is no one voice that provides the answer. Thus, for the reader, what is interesting about Camus' novel is less the results of this dialogue than the dialogic process itself: "On this reading, *The Plague* illustrates less a thematic moral lesson than a paradigm for the way in which moral consciousness may be developed and nourished aesthetically in the conflict among moral voices" (Krapp 1999: 675). Krapp thus leaves the framework of Second World War to analyse the more general qualities of *La Peste*. My analysis will follow the same general outline as Krapp's: I will leave the question of the allegoric relationship to the experience of the resistance aside and focus on how the novel speaks to more general aspects of human cooperation and morals. Also, I will follow Krapp in concentrating on the process of moral dialogue, and not the moral lesson that can be derived from this process. However, as Krapp stays firmly on the level of individual voices stating their moral outlook, I suggest that he misses crucial aspects of this dialogue, aspects which the perspective from enactivism can supply.

Shoshana Feldman approaches *La Peste* in a very different manner. In a chapter from her book *Testimony. Crises of Witnessing in Literature, Psychoanalysis, and History*, co-authored with Dori Laub, she reads the novel not as an allegory for the French resistance, but rather as testimony to the horrible events of Holocaust. According to Feldman, Camus uses the plague to represent the Holocaust because both events are unimaginable:

> Since we can literally witness only that which is within the reach of the conceptual frame of reference we inhabit, the Holocaust is testified to by the *The Plague* as an event whose specificity resides, precisely, in the fact that *it cannot, historically,* be *witnessed*" (Feldman 1991: 104, authors' italics)

For Feldman, Camus' novel is an attempt to witness the un-witnessable. This would be impossible through traditional history writing, but Camus makes an attempt through literature. According to Feldman, Camus would later realize, and express in his book *La Chute*, that such a testimony is in fact impossible, but when writing *La Peste* he still believed in the possibility. Interestingly, Feldman also suggests, if only briefly, that there is not only a testimonial value to *La Peste*, but also a certain knowledge to be gained from fighting the plague. This would be "a firsthand, carnal knowledge of victimization, of what it means to be 'from here'[…]"(Feldman 1991: 111). This "carnal knowledge" is tightly connected to the interaction with others, it is a "knowledge of the way in which 'this history concerns us all', in

which ‘this business’ of the Plague ‘is everybody’s business’[…]” (Feldman: 1991: 111). However, focusing on the testimonial aspects, Feldman does not enter in detail as to the nature of this knowledge. I propose that Feldman’s notion of a ‘carnal knowledge’ puts us on the right track to expand Krapp’s interpretation of *La Peste* as a moral dialogue. I will read this novel as a story of how human interaction can be formed and developed on a large scale. I will claim that the interaction itself, as an independent entity, is at the centre of the novel. This interaction is above all created by the embodied and emotional coordination between the different characters and the citizens of Oran, rather than through linguistic exchanges. The value of this interaction, I will propose, is not to produce some sort of concluding moral aphorism to live according to, but rather its capacity to make sense of the world together.

The enactivist approach considers sense-making as the defining trait of life itself, even the smallest bacteria are involved in making sense of their world. In my analysis of *La Peste*, I will investigate the other end of the scale: How a group of complex forms of life, that is humans, come together to form a collective unit that makes sense of its world. As the characters become more and more deeply involved in the interaction which arises, I will argue that this process takes on an agency of its own. And, I will try to show that this interaction can be understood as formed in large part by pre-reflective mechanisms. The goal of this chapter on *La Peste* will be to examine how the characters, by spreading out into their social and physical environment, participate in a grand scale social interaction which achieves its own processual autonomy. Instead of investigating different moral perspectives in each character’s mind separately, I will analyse the different ways that the characters coordinate in order to form this interaction.

4.2 From mind-reading to participatory sense-making. An enactivist account of social interaction

How do human beings interact with each other? This admittedly broad question is crucial for both the cognitive sciences as well as for the study of literature. A popular approach within cognitive sciences has been to view human interaction as based on some form of mind-reading. Very briefly, in such an account, anyone wanting to interact with anyone else, would mentally represent their best guesses of the interlocutor’s mental content, either consciously or subconsciously. From these assumptions, they would make a guess as to the intentions and assessments of the interlocutor. Then, they would use this information to adjust their own behaviour accordingly. Different varieties of this approach have not only gained attention in

the cognitive sciences, but also in literary studies. In her book, *Why We Read Fiction: Theory of the Mind and the Novel*, Lisa Zunshine proposes that the concept of 'theory of mind' (a form of mind-reading[85]) can be extended to fiction in order to understand the interactions between literary characters. In the words of Zunshine, mind-reading, or theory of the mind, designates the human capacity to "explain people's behaviour in terms of their thoughts, feelings, beliefs, and desires" (Zunshine 2006: 6). This capacity is stimulated as we try to follow the varying states of mind of different characters when reading a novel. In her analysis of mind-reading and detective novels, Zunshine compares reading of this kind of novels as going to the gym. She suggests that "detective stories 'work out' in a particularly focused fashion our ability to store representations under advisement and to reevaluate their truth-value once more information comes in" (Zunshine 2006: 123-124). Literature as construed by Zunshine would then work as a sort of game, where the point would be to guess what the different characters are thinking at any given point in the narrative. My intention here is in no way to deny the relevance of mind-reading in literary analysis, especially in a genre as the detective novel. However, I do suggest that Zunshine perhaps lends a bit too much weight to this concept, and that this would especially be the case with the *La Peste*. A too strong focus on mind-reading runs the risk of overlooking that which lies between the individual characters and their mental deliberations; namely the interaction itself.

In a recent article, Timothy Chesters argues for a more interactional approach to literature than mind-reading centred approaches such as Zunshine's. He claims that these approaches fail to capture many of the pre-reflective aspects of social interaction. According to Chester, even if mind-reading is a part of social understanding, we use it only in special cases, such as when comprehension is interrupted:

> That only interruptions in this natural course should provoke us into mindreading lends support to IT's [interactional theory] claim that, most of the time, our ability to act in concert with others depends on forms of interpersonal awareness that are largely pre-reflective (Chesters 2014: 71)

I argue that this is especially the case with *La Peste*. In a detective novel, Zunshine's favoured example, any one thought about a character's intention is constantly interrupted as the plot twists and turns, and so a 'theory of the mind' approach proves useful in understanding this genre. As for *La Peste*, such an approach fails to grasp the pre-reflective processes that I claim are at the heart of this novel.

[85] Theory of the mind is a strain of mind-reading that claims that when interacting with someone, every participant forms a theory of how the other's mind work, based on the workings of our own mind.

‘Theory of the mind’ can be said to situate itself within a computational approach to social cognition and thus construes social interaction as a matter of each participant receiving data (other people’s behaviour) from the outside and subsequently turning it into behaviour (one’s own behaviour). Thus, it comes as no surprise that this approach has been strongly criticised by several enactivist thinkers. According to Thomas Fuchs and Hanne De Jaegher, in an article called “Enactive Intersubjectivity: Participatory Sense-Making and Mutual Incorporation”, the main problem is that mind-reading approaches consider the world and the individual as clearly delineated and static entities. As a consequence, they overlook how the body and the interaction itself influence the circular process of human interaction:

> In general, representationalist approaches assume that the social world or the social other is something pregiven, i.e. they are fully determined in the way they appear to me. Social cognition, then, consists in the internal mapping or modelling of the other’s characteristics and actions and, from there, interpreting and giving explanations for their behaviour. However, if intersubjectivity is regarded as a circular process in which the cogniser constantly influences the other by his actions and vice versa, then cognising and acting are interdependent and there is no pregiven other. On this condition, the concept of inner mapping or representation is too static to be an adequate description of the process (Fuchs and De Jaegher 2009: 469)

In the approaches that Fuchs and De Jaegher criticise, we can say that social interacting becomes turn based. Each participant takes turns at looking at the actions of the other, and from these actions, the participants interpret the intentions and assessments of the others in the form of some mental representation. This being done, the participants can then act accordingly. The problem with this kind of approach, as Fuchs and De Jaegher point out, is that it misses the crucial effects of the interaction itself.

Drawing on studies of infants, Fuchs and De Jaegher, conclude that social interaction is based on interactive practice and coordination. Crucially for our purposes, this means that “[w]e do not need to form internal models or representations of others in order to understand and communicate with them. Social cognition rather develops as a practical sense, a musicality for the rhythms and patterns of the early dialogue” (Fuchs and De Jaegher 2009: 482). This concept of social interaction as a practical sense, and not as representational content will function as a way of opening up to a different interpretation of the moral dialogue of *La Peste*. By leaving a mind-reading framework of social interaction, I will turn my discussion of the moral dialogue in *La Peste* towards these interactional aspects. This means that I will not so much try to set up the different moral outlooks of each character against each other (as would be Krapp’s intention). Rather, I will look at a sort of moral know-how, the

'practical sense' of Fuchs and De Jaegher, or Feldman's underspecified 'carnal knowledge', which develops in the interaction among the characters themselves. I will see how the moral value of this interaction cannot be summed up in some sentences but rather has a processual value. In other words, I will investigate how the citizens of Oran form and strengthen an interaction that allows them to make sense of the world that surrounds them.

As we have seen earlier, in her enactivist account of literature, Yanna Popova emphasized the narrator as the organising element to understanding fiction. Therefore, she refuses that the mind-reading of individual characters can provide the right conceptual tools:

> "[T]he atomistic reductionist view of the individual mind as the primary object of study in much modern psychology research is simply unable to account for the ineluctable intersubjectivity of human minds. Thus, stories do not happen in individual minds; they occur in the interaction between minds […]" (Popova 2015: 4)

For Popova, the viewpoint of the narrator is the single most important, it is he or she that makes sense out of this interaction between minds and interacts with the reader to create sense out of the events. I suggest that Popova's account is well suited to an analysis of *La Peste*. When we see how the narrator, Rieux, tells the story of Oran during the plague, we can construe his story with the words of Popova: as a story of an "interaction between minds". Instead of pitting against each other the moral outlook of each character, I will rather see how Rieux construes all these characters as forming a social interaction together.

Well into the novel, as the plague is slowly beginning to decline, Rieux visits an isolation camp where those suspected to be carriers of the plague are kept under supervision. The way he describes this camp can serve as a first example of the kind of phenomenon I aim to analyse:

> Le crépuscule était là, et le ciel s'était découvert. Une lumière douce et fraîche baignait le camp. Dans la paix du soir, des bruits de cuillers et d'assiettes montèrent de toutes parts. Des chauves-souris voletèrent au-dessus des tentes et disparurent subitement. Un tramway criait sur un aiguillage, de l'autre côté des murs (Camus 2013 [1947]: 641)[86]

I suggest that Rieux's description does not primarily serve to create a more or less vivid image of Oran. Rather, what he describes can in fact be read as mechanisms of coordination which serve to draw the inhabitants of Oran into a close interaction as they endure and battle

[86] Dusk was falling and the sky had cleared. The camp was bathed in soft, clear light. In the quiet evening, sounds of spoons and plates could be heard on all sides. Bats flitted around above the tents and suddenly vanished. A tram screeched on its points on the other side of the wall (187)

the plague. The frame of this scene, the twilight, the sky, and the light, visible to all who are present, underlines how everyone in this camp is in the same situation. Rieux also describes the sounds of cutlery clinging, which evoke the sound of all the camp-dwellers eating at the same time, and so points to their shared isolation. Finally, the two elements coming from the outside, the bats and the sounds of the tram, emphasise the fact that they are closed off from the rest of the city. When the pest hits Oran, its inhabitants try to make sense out of the chaos that ensues, and as we shall see, many of them find meaning in coming together to fight the plague. Drawing on enactivist insights, early second-generation cognitive science as well as more mainstream psychology, I will argue that, as the citizens of Oran tune in on the plague and its raging destructions, they coordinate to form an interaction. In the current framework, this interaction can be said to take on a very strong logic of its own, or in the words of De Jaegher and Di Paulo, the interaction becomes "autonomous" (De Jaegher and Di Paulo 2007: 492). Seen through these cognitive lenses, in our example, the camp dwellers would experience an embodied feeling of coordination which draws them into the interaction through eating the same food, making the same clinging noise with the spoon under the same sky in twilight.

To understand how the citizens of Oran form such an interaction, I propose to look at the enactivist concept of "participatory sense-making", which in what follows will, for the most part, be abbreviated to PSM. Hanne De Jaegher and Ezequiel Di Paulo developed this concept in a 2007 article called "Participatory Sense-Making. An Enactive Approach to Social Cognition". According to De Jaegher and Di Paulo, coordination in some form is omni-present in the world. To support this claim, they cite examples from both the physical and the biological realm. Pendulum clocks hanging next to each other coordinate through vibrations which are transferred via the wall, while fireflies coordinate a collective flashing pattern without any form of communication. Coordination is often not very advanced and certainly not difficult to achieve, "[o]n the contrary, it is often hard to avoid" (De Jaegher and Di Paulo 2007: 490). Coordination can be absolute, one action leading automatically to another, but it can also be relative. De Jaegher and Di Paulo use the example of an adult walking together with a young child. The two are going in the same pace, but with very different length to their legs. That means that every so often, one of them needs to compensate for this; the grown up stops up a bit, or the child strides to catch up (De Jaegher and Di Paulo 2007: 491). This last example shows that coordination does not necessarily follow a simple rhythm:

> Systems in relative coordination do not entrain perfectly. Instead they show phase attraction, which means that they tend to near perfect synchrony, and move into and out of the zone that surrounds it […] Coordination can be like swaying into and out of states that are close to stable, but not quite. Eventually, it might break down altogether (De Jaegher and Di Paulo 2007: 491)

According to De Jaegher and Di Paulo, this kind of relative coordination is the base for social interaction. We move in and out of our social coordinations while our coupling to these processes varies in strength.

However, for De Jaegher and Di Paulo, it is important to stress the interactional process itself:

> We must go beyond a view that defines interaction as simply the spatio-temporal coincidence of two agents that influence each other. We must move towards an understanding of how their history of coordination demarcates the interaction as an identifiable pattern with its own internal structure, and its own role to play in the process of understanding each other and the world (De Jaegher and Di Paulo 2007: 492)

According to them, the interaction itself ends up forming and influencing the agents involved. This does not mean the participants of the interaction lose their autonomy, only that between them emerges a third actor; the coordination itself. This latter can be said to take on an autonomous nature of its own:

> Social interaction is the regulated coupling between at least two autonomous agents, where the regulation is aimed at aspects of the coupling itself so that it constitutes an emergent autonomous organization in the domain of relational dynamics, without destroying in the process the autonomy of the agents involved (though the latter's scope can be augmented or reduced) (De Jaegher and Di Paulo 2007: 493)

We see how this is a strong move away from mind-reading. The two interacting parties no longer take turns to act and observe. Through the coupling of two agents, the interaction itself can gain the capacity to influence the agents involved in an autonomous manner. To clarify this, De Jaegher and Di Paulo use the example of two colleagues meeting in an office corridor. The intention of both is to make their way to their offices, but meeting in the corridor, they get trapped in; when one moves to the left, the other follows suite and so it goes on. Often it does not end before one of them breaks the coordination and makes a gesture that the other may pass first (De Jaegher and Di Paulo 2007: 493-494). Here, our natural tendencies to coordinate our movements come together to create an interaction which in turn strengthens the coordination by means of its emergent history and internal structure to the point where it becomes autonomous. Thus, against both of the agents' will, the interaction

continues until one of them actively ends it (for example by making a hand gesture to invite the other to go first). In the quotation with Rieux's description of the isolation camp above, we saw a similar instance of coordination. The camp dwellers seem to physically coordinate through clinging their spoons under the same sky. I suggest that these instances of coordination (in many different forms), which are numerous throughout *La Peste*, together can be read as constituting an autonomous and large-scale social interaction.

However, according to De Jaegher and Di Paulo, there is more to these social coordinations than just moving at the same rhythm. True to the enactivist way of thinking, these interactions also function as ways to coordinate the activity of sense-making. For sense-making, as we have seen, does not limit itself to the physical sphere: "Individuals are constantly engaged in sense-making activity and this is also true in social encounters" (De Jaegher and Di Paulo 2007: 497). As we have seen, sense-making is, at its most basic level, embodied, and so is the coordination that lies at the base of social interaction. Thus, our sense-making can become coordinated: "If regulating of social coupling takes place through coordination of movements, and if movements – including utterances – are the tools of sense-making, then our proposal is: social agents can coordinate their sense making in social encounters" (De Jaegher and Di Paulo 2007: 497). If we return once again to the quote from the isolation camp, read in a framework of PSM, the camp dwellers would then experience a feeling of belongingness and community by the embodied feeling of being coordinated with people that share their fate. This enables them to make sense of the horrible events that are taking place around them; they might be suffering, but through their suffering they understand that they are not alone. Examining this phenomenon through means of coordination from several domains, and not only the embodied feeling of togetherness as I have used as an example here, I will suggest in what follows that Rieux's narration about the events in Oran traces how its inhabitants come together to make sense in what De Jaegher and Di Paulo call 'participatory sense-making'.

I will begin my investigation by having a look at the setting and the characters of the novel. Further, I will show how language is described as insufficient to make sense out of the situation. Then, I will move on to examining how a social interaction of participatory sense-making develops and how it takes form. My analysis will take place at three different levels. Firstly, I will address what I refer to, in lack of a better word, as the existential level. Using the framework of the meaning-maintenance model developed by Steven J. Heine, Travis Proulx and Kathleen D. Vohs, I will investigate how the world views of the characters of *La Peste* are shaken by the mass-death that surrounds them and how this leads them to form a

tighter interaction. Further, I will examine this interaction at an organisational level by drawing on Edwin Hutchins' pioneer study of naval navigators. Finally, I will turn to the level of the narrator, Rieux. I will analyse how he describes the way in which the characters further strengthen the interaction of PSM by physically coordinating. Through his narrative, we see how the processes outlined above, drawing together and coordinating, are expressed through his way of writing in a way I argue is cognitively realistic.

4.3 The plague strikes Oran. The emergence of a social interaction

The first character to be introduced in the novel can interestingly be said to be the location and the framework for the interaction I have claimed is at the centre of *La Peste*, that is, the city of Oran itself. It is a place seemingly like any other: "A premier vue, Oran est, en effet, une ville ordinaire et rien de plus qu'une préfecture française de la côte algérienne" (Camus: 497) [87]. Soon after this presentation of the city, the narrator introduces himself, explaining how he has gotten access, by chance, to the documents that allow him to tell his story. It is not revealed before the end that doctor Rieux is the narrator. Instead, he is introduced as the first in a catalogue of characters. After Rieux, the examining magistrate[88] Othon appears, who will play a small but important role. Little after, Rambert, the visiting journalist, approaches Rieux in his doctor's surgery. Jean Tarrou is then introduced, a mysterious stranger which will be central in fighting the plague by forming the team of volunteers which helps the medical personnel. Later the same day, Rieux crosses paths with the Jesuit priest Paneloux, and then only some minutes later with an old client of his, Grand, which has just saved the mysterious Cottard from killing himself. In under ten pages, all the main characters are introduced, including the city of Oran itself.

The plague arrives with the rats. They start to die in the most inconvenient places, filling the streets of Oran with their lifeless bodies. Soon, the first humans start to die from the unknown disease. Despite its alleged disappearance from temperate countries years ago, Rieux and his colleges must soon face the fact: "[C]'est à peine croyable. Mais il semble bien que ce soit la peste" (Camus: 517)[89]. The authorities take some time to get up to speed, but in the end, they take the necessary action and close the city. No one will enter (except in

[87] At first sight, indeed, Oran is an ordinary town, nothing more than a French Prefecture on the coast of Algeria (5)
[88] In France, the examing magistrate (juge d'instruction), in the case of an allegation of a crime, carries out a preliminary investigation to see if the accused will go to trial or not.
[89] It's almost impossible to believe. But it appears that it must be the plague (29)

exceptional cases) or exit (except illegally) the city before the plague has stopped. The shutting down of the city makes it very clear to the inhabitants that they are in this together:

> À partir de ce moment, il est possible de dire que la peste fut notre affaire à tous. Jusque-là, malgré la surprise et l'inquiétude que leur avaient apportées ces événements singuliers, chacun de nos concitoyens avait poursuivi ses occupations, comme il l'avait pu, à sa place ordinaire. Et sans doute, cela devait continuer. Mais une fois les portes fermées, ils s'aperçurent qu'ils étaient tous, et le narrateur lui-même, pris dans le même sac et qu'il fallait s'en arranger (Camus: 535)[90]

Rieux carefully introduces the city and the characters and links them together, trapped in the cut-off city of Oran. The overarching plot of the novel thus provides a closed setting which enables the characters to interact closely with each other.

In Camus' novel, there is not much reference to the characters' thoughts or feelings. Admittedly, the reason for this absence can be Rieux's limited access to documentation (he bases his story almost exclusively on his and Tarrou's observations) but it can also be tied to what he considers his role as a narrator:

> Ces faits [the events related in the novel] paraîtront bien naturels à certains et, à d'autres, invraisemblables au contraire. Mais après tout, un chroniqueur ne peut tenir compte de ces contradictions. Sa tâche est seulement de dire : 'Ceci est arrivé' lorsque il sait que ceci est, en effet, arrivé […] (Camus: 499)[91]

Rieux seems to want to refer strictly the events that happened, and thus avoid speculating about the inner life of its protagonists.

In fact, the capacity of language to represent more emotional and personal aspects is downplayed on several occasions. Rieux, for example, talks of those who have been separated from a loved one when the city was closed. He knows their situation first-hand as he was separated from his wife who was under treatment at a hospital in another town when the plague broke out. Those who must endure separation are the ones who suffer the most. Not only are they separated, as the city is hermetically sealed off, they are even refused the most basic form of communication, except the very limited possibilities of the telegram:

[90] From that point on, it could be said that the plague became the affair of us all. Up to then, despite the surprise and anxiety that these unusual events had brought us, everyone had gone on with his business, as well as he could, in the usual place. And that no doubt would continue. But, once the gates were closed, they all noticed that they were in the same boat, including the narrator himself, and that they had to adjust to the fact (53)

[91] To some people these facts will seem quite natural; to others, on the contrary, improbable. But a chronicler cannot, after all, take account of such contradictions. His task is merely to say: 'This happened', when he knows that it did indeed happen (7)

> Et comme, en fait, les formules qu'on peut utiliser dans un télégramme sont vite épuisées, de longues vies communes ou des passions douloureuses se résumèrent rapidement dans un échange périodique de formules toutes faites comme: 'Vais bien. Pense à toi. Tendresse' (Camus: 536)[92]

Even though the possibilities of expressing one's feeling would be better in a letter, this example with the telegram still highlights how words struggle to express deep human emotions.

The low-level employee Grand, an old patient of Rieux, is no more a man of many words, although Grand desperately wants to express himself. Throughout the novel, he is writing the first page of a novel, never making it further than the first paragraph. Especially interesting for our purposes are the relations between his emotions and his lacking capacity to describe them. Grand is described as living, in a certain sense, an exemplary life and as having the courage of good sentiments. He visits his sister regularly and admits to still missing his dear parents, many years after their death. However, he never manages to describe even the simplest emotion:

> Il ne refusait pas d'admettre qu'il aimait par-dessus tout une certaine cloche de son quartier qui résonnait doucement vers 5 heures du soir. Mais, pour évoquer des émotions si simples, cependant, le moindre mot lui coûtait mille peines. Finalement, cette difficulté avait fait son plus grand souci (Camus: 524)[93]

Grand feels a lot but cannot express this in words. His lacking capacity to express himself, together with Rieux's statements above, all point to language's limitations. While Rieux easily relates the horrible events that take place, he seems very hesitant when it comes to portraying the minds of the characters. Thus, we can grasp both the ambition and the scope of Rieux's story: to tell in plain words what happened without trying to represent the inner lives of the characters through any form of mind-reading.

I have suggested extending Krapp's idea of a moral dialogue to also include aspects of coordination and interaction. However, even if I suggest that most of this dialogue takes place outside of conversation and inner thought, there are also some examples of a much more direct and explicit way of trying to understand and propose a solution to the horrible events in Oran. The priest Paneloux expresses his thoughts explicitly in two sermons. His first sermon,

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[92] And since, as it happens, the forms of words that can be used in a telegram are quickly exhausted, before long whole lives together or painful passions were reduced to a periodic exchange of stock phrases such as 'Am well', 'Thinking of you', 'Affectionately yours' (54)

[93] He did not deny that most of all he liked a certain bell in his neighbourhood that rang softly around five in the evening. But even to find the words to express such simple emotions cost him an enormous effort. In the end this problem had become his main worry (37)

given not long after the measures against the plague have been announced, tries to make sense out of the difficult situation. The dilemma Paneloux poses to the congregation is old: How to understand human suffering in a world controlled by an all-powerful God? He draws the conclusion that the plague must be God's will: "Mes frères, vous êtes dans le malheur, mes frères, vous l'avez mérité" (Camus: 552)[94]. What is happening to the citizens of Oran is just, for they have sinned. From this, he takes the next logical step: "Cette main [of the plague] qu'elle vous tendra, nulle puissance terrestre et pas même, sachez-le bien, la vaine science humaine, ne peut faire que vous l'évitiez" (Camus: 553)[95]. There is nothing to do but pray and hope that God will show mercy and "Dieu ferait le reste" (Camus: 555)[96]. Thus, Paneloux's solution in his sermon is to surrender oneself to God and let him decide who will perish and who will live.

His second sermon follows a similar vein, although at this point, the death tolls are very high, and it seems even harder for Paneloux to accept that all this suffering can be willed by a Christian God. This second sermon is held not long after the team of volunteer medical workers, which Paneloux has joined, has witnessed the long and agonising death of a young boy. His death has made Paneloux's dilemma even more clear. He must accept this suffering as God's will or refuse God altogether: "Il faut tout croire ou tout nier. Et qui donc, parmi vous, oserait tout nier?" (Camus: 630)[97]. Although Paneloux believes in God, he is in some ways similar to Unamuno's Manuel. The latter thought himself torn between his actions and his lack of inner faith. As for Paneloux, he is forced to accept all that happens to keep such an inner faith. If God is all-powerful, Paneloux sees no other solution to avoid losing his faith than accepting everything, even the death of an innocent child. And, just as with Manuel, this attitude seems to seal his fate.

After the dramatic second sermon, Rieux, who was present, overhears a young deacon and an old priest discussing Paneloux's religious development. The young deacon has read Paneloux's latest writings, which he claims will be even more radical than his sermon. According to him, Paneloux's idea is that "[s]i un prêtre consulte un médecin, il y a contradiction" (Camus: 633)[98]. And Paneloux holds to his ideas. Shortly after the second sermon, he contracts what seems to be the plague. He refuses to let anyone tend to him, and

[94] My brethren, a calamity had befallen you; my brethren, you have deserved it (73)
[95] No earthly power – not even, note this well, vain human science – can shield you from this hand as it reaches out to you (75)
[96] God would do the rest (77)
[97] One must believe everything or deny everything. And who among you would dare to deny everything? (173)
[98] If a priest consults a doctor, there is a contradiction (177)

his condition soon deteriorates. However, his symptoms are not unanimously congruent with the plague. According to Rieux, "[c]était la peste et ce n'était pas elle" (Camus: 635)[99]. But plague or no plague, whatever afflicts Paneloux produces the same result: "[L]e lendemain matin, on le trouva mort, à demi versé hors du lit, son regard n'exprimait rien. On inscrivait sur sa fiche: 'Cas douteux'" (Camus: 636)[100]. For our purposes, the question of whether Paneloux is struck by the plague or if he somehow brought his death upon himself is not so interesting. What is interesting is how he seems to be very far from reaching any conclusions to his answers despite the fact that he is perhaps the character in *La Peste* who most explicitly deliberates on the moral ground for his actions. I propose that one function of Paneloux's two sermons could be to point to the limits of logical philosophical and religious discourse. The all-too stringent "tout croire ou tout nier" of Paneloux shows how an analytic reasoning fails in the face of this horrible catastrophe. Paneloux argues himself into a corner where the doctor and the priest become two opposing forces and he perishes as a 'cas douteux'. In what follows I will suggest that the story Rieux tells seems to present an alternative way of coping with the plague, since it allows those who endure it to make sense out of their situation, without ending up in extreme religiousness or moral relativism. However, to understand this process of making sense of the plague, we must look beyond what is being said at an individual level and look at the embodied and interactional ways of sense-making.

4.4 The need for meaning. Death and the meaning-maintenance model

I have proposed as my overarching claim that Rieux's story of Oran during the plague describes a slow creation of a process of PSM which is largely unspoken and happening at different levels of human interaction and coordination. We will begin the analysis of this process at an existential level, with the profound human need for meaning. In a 2006 article, Heine, Proulx and Vohs claim that loss of meaning leads to a wide range of reactions, some of which happen at a pre-reflective level. It is these reactions that I will take an interest in. Heine, Proulx and Vohs' conception of human meaning-making will lend empirical support to the concept of PSM, as well as showing one way that the inhabitants of Oran create an interaction through pre-reflective mechanisms of coordination.

Heine, Proulx and Vohs base their claims mainly on findings within what is called Terror Management Theory (TMT). This theory claims that the fear of death is the most basic

[99] It was the plague, and yet it wasn't (180)
[100] The following day, they found him dead, half-falling out of the bed, there was nothing to be read in his expression. They wrote on his card: 'Doubtful case' (181)

human motivational force which influences some of our most important relations: "TMT posits that awareness of the inevitability of death is a powerful motivating force that influences the human needs for meaning, self-esteem, and close relationships" (Kesebir and Pyszczynski 2012: 5). To support this claim, TMT presents empirical findings from over 400 studies, conducted in over 20 countries, which in some way confirm the claims of TMT (Kesebir and Pyszczynski 2012: 6). Heine, Proulx and Vohs propose that these results might be better subsumed under the larger umbrella of the human search for meaning rather than confining them only to the fear of death. To reinterpret the findings of TMT, they propose a model called 'the meaning-maintenance model' (from now on, I will refer to this model as MMM). This model claims that the fear of death is only one of several ways that the relations within the self or in the world might be threatened, something which leads to a need to restore these relations, that is, to maintain a meaningful world.

Heine, Proulx and Vohs see humans as constantly searching relations: within themselves, in the world, and between themselves and the world (Heine et al. 2006: 89-90). Further, the creation of such a meaning is a fundamental human activity:

> We propose that humans possess an innate capacity to identify and construct mental representations of expected relationships between people, places, objects, and ideas. As self-conscious entities, humans also possess a unique capacity to reflect on these representations and can consequently detect structural breakdowns and inconsistencies (Heine et al. 2006: 90)

Although there are some fundamental differences in how MMM and enactivism conceive of the human mind[101], I argue that the findings of MMM can still be relevant to my enactivist analysis of *La Peste*. As we shall see, MMM shows that a conceived loss of meaning can lead to a number of reactions, among them the need to form stronger relationships with the people that surround us. During the plague, the presence of mass-death, arguably, leads to such a loss of meaning. Thus, the characters of *La Peste* draw together and, as a consequence, create an

[101] As we see from the quotation, Heine, Proulx and Vohs situate their concept of this meaning within a strong representationalism, it seems to be an entire system of relations stored as mental representations (See also Heine et al. 2006: 102). This is contrary to both enactivism and my analysis of *La Peste*. However, I argue that this does not exclude their relevance for an enactivist analysis. Both Heine, Proulx and Vohs, as well as the enactivists, interest themselves for the fundamental human activity of creating meaning in the world. As we have seen, Heine, Proulx and Vohs see meaning as divided into three sub-sections: within oneself, between world and oneself, and in the world. Enactivism, sees this as three different aspects of the same thing; all organisms make sense of their world and of themselves, at least on the most basic level, from metabolism. For our purposes, meaning and the enactivist notion of sense are so close that for the remainder of my analysis I will consider them as interchangeable. As Heine, Proulx and Vohs's explanatory framework is admittedly very general, and the differences between meaning as relations and the enactivist account of sense-making as how the world relates to the organism are quite small, I claim, that their empirical data could also be reframed within the enactivist notion of sense-making, without the insights of Heine, Proulx and Vohs losing any validity.

'us', but also a 'them'. In such an interpretation, the goal of strengthening their bonds is to create meaning. I argue therefore that firstly, MMM supplies further empirical data to the PSM model and, secondly and most importantly, it provides a model for understanding how the coordination which De Jaegher and Di Paulo claim is at the heart of PSM could work at an existential level in Camus' novel. De Jaegher and Di Paulo's main example was that of two people coordinating against their will when meeting in a corridor in an office environment. MMM allows us to see how another type of coordination could be achieved when the characters of *La Peste* are interacting in an environment that is pervaded with something much more threatening; a deadly disease.

According to Heine, Proulx and Vohs, there are three different ways that threats to meaning can be repelled and meaning restored. Usually, when new information which threatens meaning is present, one adjusts this information to fit one's existing frameworks of understanding. A second, more costly method, is to revise one's own frameworks to match the new information. However, there is a third way, which lies at the centre of interest for the MMM:

> [F]ollowing threats to meaning people will reaffirm an alternative network of relations. If people perceive an element of self or of their worlds that does not find a place in their existing frameworks, they may react by adhering more strongly to other relational structures, even if these structures are unrelated to the expected relationships that are under attack (Heine et al. 2006: 92)

With loss of meaning in one domain, one can compensate for this in another. This process is what the authors call 'fluid compensation':

> Because the proposed goal of our meaning maintenance efforts is to be attending to a viable meaning framework, it is not necessary to deal directly with the threatening anomaly. Any compelling and available network of relations can suffice, thereby underscoring the fluid compensatory nature of the MMM (Heine et al. 2006: 106)

To restore meaning, it is not necessary to target the domain where meaningful relations have been weakened, one can also compensate by strengthening other, unrelated domains. This will be important in order to understand the slow and not unproblematic formation of a sense of unity, of belonging to a group, which takes form in *La Peste*.

It might seem obvious to say that a catastrophe like a plague creates a feeling of unity and of belonging as well as a need to create sense out of these events. Throughout history, the examples of people coming together during times of crisis are numerous, and very often the need for seeing a meaning behind the crisis arises. Nevertheless, the main goal of MMM is to

state the psychological mechanisms behind this coming together, namely, the need for meaning. My main claim for this investigation of *La Peste* is that during the plague a large-scale process of 'participatory sense-making' is created. The explanatory framework of MMM will begin justifying this claim and help to see how this process unfolds.

Not long after the plague has begun to take its toll on Oran, the inhabitants seem to be drawn together by the threatening disease. At an early point of the novel, Rieux has a vision of the city while talking with Grand:

> Rieux écoutait en même temps une sorte de bourdonnement confus qui, dans la ville, semblait répondre aux sifflements du fléau. Il avait, à ce moment précis, une perception extraordinairement aiguë de cette ville qui s'étendait à ses pieds, du monde clos qu'elle formait et des terribles hurlements qu'elle étouffait dans la nuit (Camus: 558)[102]

Rieux describes here how he sees the city of Oran as forming a tighter community as a response to the plague. The buzzing of the city seems to tune in on the whistling sound of the plague. The contrasts between the low pitch buzzing and the high pitch whistling underlines how the two contenders, Oran and the plague, find themselves in fierce battle. By being violently attacked by the plague, Oran becomes a closed world. Rieux's vision points to the overarching structure of the novel itself: By tuning in to the mechanisms of the plague, the citizens of Oran draw themselves closer together, slowly but continuously. However, this process does not happen immediately nor is it unproblematic. In the beginning of the plague, it seems hard to take in the new and extraordinary situation: "Il y avait les sentiments communs comme la séparation ou la peur, mais on continuait aussi de mettre au premier plan les préoccupations personnelles. Personne n'avait encore accepté réellement la maladie" (Camus: 542)[103]. However, as the plague advances, the citizens of Oran, with certain exceptions, seem to create stronger and stronger relations between themselves and to the city as a whole.

I suggest that this strengthening of relations can be usefully understood in the framework of MMM. One of their central claims is that threats to meaning strengthen one's adherence to social groups. Humans have an inherent need to belong and to form relationships with other humans and when deprived of these relationships, we experience a series of

[102] Rieux was listening at the same time to a sort of vague humming sound in the town, as if replying to the whistling flail of the plague. At this moment he had an extraordinarily acute perception of the town spread out at his feet, the enclosed world that it formed and the dreadful cries stifled in its night (80)
[103] There were those shared feelings, like separation or fear, but people also went on giving priority to their personal concerns. No one yet had really accepted the idea of the disease (61)

negative consequences (Heine et al. 2006: 96). Not surprisingly, humans need other humans. Similarly, when the plague hits Oran its inhabitants slowly come together. Heine, Proulx and Vohs suggest the reason for this kind of behaviour: "The current model goes beyond existing explanations of belongingness functions by proposing that one crucial purpose of having interpersonal relationships is that they provide people with a general sense of interrelation – a sense of meaning" (Heine et al. 2006: 96). According to them, by merely assembling, humans can create meaning. I propose that this helps us see how we can understand what takes place in Oran as a process of participatory sense-making. A lack of meaning makes Rieux and the others come together to restore this meaning, that is, in enactivist terms, they participate in order to make sense of their world.

As the plague progresses, personal problems are soon put aside by most citizens of Oran. The plague becomes so omnipresent that during the hot summer weather, which further fuels the plague, all individual feeling is lost: "[O]n pouvait dire à ce moment, au milieu du mois d'août, que la peste avait tout recouvert. Il n'y avait plus alors de destins individuels, mais une historie collective qui était la peste et des sentiments partagés par tous" (Camus: 596)[104]. Shortly after this, Rieux again describes how the city is responding to the sounds of the plague (note here that the wind spreads the contamination): "Cette ville déserte, blanchie de poussière, saturée d'odeurs marines, toute sonore des cris du vent, gémissait alors comme une île malheureuse" (Camus: 597)[105]. As the plague spreads, carried on gusts of wind, Oran moans in pain. This works as another example of how Oran functions as one entity.

However, the citizens of Oran do not come together only to passively endure their sufferings. An important turning point in the novel comes when an organization of volunteers is formed to help the overwhelmed medical personnel. This team of unskilled volunteers carries out the work that can be delegated to give the medical personnel more resources to fight the disease: They transport the sick, bury them, care for them and maintain the isolation of the patients. This organisation is central in forming an 'us'. It is Tarrou who proposes to create this organisation that will end up being at the centre of battling the plague. It is a very dangerous job; the odds of survival are estimated by Rieux as being one out of three (Camus: 574). Nevertheless, as we shall see, this group of volunteers will include almost all of the main characters and not only the most likeable ones.

[104] One could say, at that moment, in the middle of August, that the plague had covered everything. There were no longer any individual destinies, but a collective history that was the plague, and feelings shared by all (129)
[105] This empty town, white with dust, saturated with sea smells, loud with the howl of the wind, would groan at such times like an island of the damned (130)

Paneloux, despite his thundering speech about how the citizens of Oran have deserved their troubles, a speech that at discourse level puts him in clear contrast with Rieux, joins the group at an early stage (Camus: 586). Two more minor characters also join in, who for our purposes are nonetheless interesting. A group led by a man named Gonzales is dealing in contraband and arranging escapes and is thus cynically exploiting the situation in Oran to make money. However, as the plague advances, even Gonzales decides to become part of the team by helping out with the surveillance of the former football stadium, now turned in to an improvised isolation post (Camus: 638). In a different manner, Othon, the examining magistrate, seems to be an unlikely member of the volunteers. Tarrou, the founder of the volunteer organisation and a close associate of Rieux has a strong dislike of judges. His father was an *avocat générale*[106] and after being present when his father demanded that an accused should be condemned to death (Camus: 644-645), Tarrou has developed a dislike for all those that judge other people. Tarrou feels sympathy towards Othon, however, after the latter has lost his son. Nevertheless, because he is a judge, Tarrou seems to regard him as a lost case: "Pauvre juge, murmura Tarrou en franchissant les portes. Il faudrait faire quelque chose pour lui. Mas comment aider un juge?" (Camus: 641)[107]. Because of this dislike, it is significant that even Othon decides to join Tarrou's team. The death of his son has softened Othon's severity, he takes a leave from his job as a judge, to instead help the ill. Taken together, these characters, who are in strong disagreement with Tarrou and Rieux, one after the other decide to participate in the team of volunteers. Paneloux, the fervently religious priest, Gonzales exploiting the plague to make money, and the severe judge Othon, all seem to leave their individualistic positions and strong personal interests and rather take up a role amongst the many volunteers who are making a collective effort of fighting the plague.

However, lack of meaning does not only lead to a strengthening of belonging, but also to a clearer definition of those that are outside of this group. The need for this is very strong: "People appeared motivated to carve up an array of strangers into 'us' and 'them', even when the basis of this categorization was unapparent, or when the individuals stood to gain nothing personally" (Heine et al. 2006: 96). Seeing as MMM poses lack of meaning as a motivating factor for drawing people together, it is highly interesting to have a look at the only major character who does not participate in the team of volunteers; Cottard. We first meet Cottard after a suicide attempt that is averted by Grand. Cottard is under investigation for a rather

[106] General attorney
[107] 'Poor judge,' Tarrou muttered as they went through the gates. 'Something should be done for him. But how can one help a judge?' (187)

serious crime (we are not told the exact nature of this crime) and living under the constant threat of being arrested is horrible for him. Later in the book, he describes this experience to Rieux, Tarrou and Rambert: "[J]e ne peux pas supporter l'idée d'être enlevé pour ça, d'être séparé de ma maison, de mes habitudes, de tous ceux que je connais" (Camus: 592)[108]. We see then that before the plague arrived, Cottard had reached the bottom, and no longer wanted to live.

However, as the plague unfolds at full strength, the normal functioning of the justice system ceases. Cottard can then rest assured that as long as the plague reigns, he will be a free man. Not only is he no longer wanted for arrest, but the plague seems also at first to create new sinners to keep him company. Especially in the beginning, it causes many to act more selfish and makes human weakness more visible. Cottard revels in these moral failings:

> Cottard était ainsi plein d'histoires, vraies ou fausses, sur l'épidémie. On disait, par exemple, que dans le centre, un matin, un homme présentant les signes de la peste, et dans le délire de la maladie, s'était précipité au-dehors, jeté sur la première femme rencontrée et l'avait éteinte en criant qu'il avait la peste. 'Bon ! remarquait Cottard, sur un ton aimable qui n'allait pas avec son affirmation, nous allons tous devenir fous, c'est sûr' (Camus: 544)[109]

Not only can Cottard restore his normal life and habits, without which he would be deprived of meaning, but the plague lays open many weak sides of people. This brings joy to Cottard. As Tarrou puts it: "[P]uisque lui-même a vécu dans la terreur, il trouve normal que les autres la connaissent à leur tour. Plus exactement, la terreur lui paraît alors moins lourde à porter que s'il y était tout seul" (Camus: 614)[110]. For Cottard, meaning is restored in the world when he is no longer under the threat of arrest, and when he no longer suffers alone.

This is significant when we see that Cottard is the only one of the major characters who does not join the volunteers. Their ranks are open to all, and Tarrou explicitly asks Cottard to join, an offer he refuses. Cottard's dynamic of meaning is directly inverse to that of the other characters. Instead of losing meaning, for Cottard, meaning is restored by the plague. Therefore, I suggest, he has not the same motivation as the others to restore this meaning through identifying more strongly with one's group (in this case the volunteers). The

[108] I can't stand the idea of being taken in for that, separated from my home, my way of life, all the people I know (121)
[109] Cottard was full of stories like that, true or false, about the epidemic. For example, it was said that in the centre one morning a man with symptoms of the disease and at the delirious stage had rushed outside, thrown himself on the first woman he met and embraced her, shouting that he had the plague (63)
[110] Since he has himself lived in terror, he considers it normal that others should experience it in their turn. Or, more precisely, terror seems to him a less heavy burden than if he were all alone (154)

ending of the novel strengthens this claim. Rieux explains why he has chosen to end his story with Cottard's fate: "Il est juste que cette chronique se termine sur lui qui avait un cœur ignorant, c'est-à-dire solitaire" (Camus: 677)[111]. It is Cottard's loneliness that defines him, and also that which seals his fate. He cannot bear that the plague is over, and that he must return to his existence as a wanted criminal all alone. As Rieux approaches his apartment, he tells us how Cottard has barricaded himself in his apartment and is shooting at the crowd. After a short stand-off with the police, he is carried out by force. Cottard's story ends there, with a policeman brutally beating him in front of the amassing crowd. As Rieux and the others lose meaning when the plague spreads death in Oran, they come together. It is the other way around for Cottard, the deadly plague brings meaning to his existence, and that is why he is described as having an ignorant and lonely heart. Drawing on the insights of MMM, I have highlighted how, in such situations, the feeling of group identity is strengthened and so is the dividing lines between 'us' and 'them'. MMM has made it possible to see how the lack of meaning creates a need to form bonds to other people and how this need can be said to explain one way in which the different characters come together in *La Peste*.

In my discussion of Krapp's article, I claimed that by seeing the moral dialogue only at the level of discourse would miss some of its crucial elements. As a consequence, I have focused more on plot events and Rieux's descriptions instead of limiting myself only to the dialogue between characters. Drawing on MMM, we can link the constant reminders of death in *La Peste* with the emergence of a sense of togetherness and belonging. According to MMM, this would not happen through linguistic dialogue, but rather through pre-reflective fluid compensation, where loss of meaning is compensated for by drawing closer together. This process then, allow me to highlight how the creation of an 'us' and 'them' functions as a powerful coordination mechanism for the characters of *La Peste*. This mechanism, for the most part, takes place outside explicit dialogue. For Rieux and the others, what was meaningless when one is alone just seems to make more sense when understood together with others.

4.5 Working together. Sense-making in interaction

In order to discuss the organisational aspects of the process of PSM in *La Peste*, I propose we turn to the anthropologist Edwin Hutchins' seminal study *Cognition in the Wild* (1995). In this book, Hutchins studies the interactions of the navigation crew of a gigantic naval

[111] It is right that this chronicle should end with the one who's heart was ignorant, which is to say alone (233)

helicopter transport called *Palau*. This being before the implantation of GPS systems, Hutchins examines how its navigation crew uses a variety of technologies, tools and techniques both mental and physical to continually produce the information necessary to know the location of the ship on the map. The goal with his study is to examine how human thinking works 'in the wild', that is when used to solve practical problems in real life. He underlines how thinking is never done outside social and cultural interactions: "The environments of human thinking are not 'natural' environments. They are artificial through and through. Humans create their cognitive powers by creating the environments in which they exercise those powers" (Hutchins 1995: 169). Therefore, the navigation team is not simply the sum of its crew members: "It is possible to describe the computations performed by the navigation team without recourse to the cognitive abilities or activities of the individual members of the team" (Hutchins 1995: 170). For Hutchins then, the cognition of the navigation team is spread out into the environment, and the limits between each crew members and the navigation room cannot be clearly drawn when it comes to assessing their share in this process.

In this chapter, I will investigate how Hutchins' insights to the distributed nature of human cognition can provide us with a way to understand the process of PSM that I have claimed is at the heart of *La Peste*. Using Hutchins' findings, I will propose that the volunteer group in *La Peste* functions in similar ways as the navigational crew that Hutchins studies, only at a much bigger scale. Hutchins claims that this crew works by using their environment and, as we will see, that this process reaches a high level of autonomy. I will suggest that a similar process emerges for the volunteers. Hutchins' study allows me to link the organisation of the medical effort against the plague to one of the central ideas of this investigation of *La Peste*: Through the effort of enduring and battling the plague, the citizens of Oran create an autonomous interaction. This interaction is not based on any mental representations of other's intentions nor on any such representations of the functioning of the organisation itself. Rather, each participant function as small parts of a larger organisation which takes on its own autonomy.

At one point during his stay on the *Palau*, Hutchins reports, the propulsion motor stopped working, causing a dangerous situation, since the large vessel was near a port and lacking the capacity to manoeuvre and to stop from drifting forwards. As a consequence of this breakdown, the power fails, and the gyrocompass, one of the most crucial instruments for navigation, fails with it. Hutchins followed the navigational crew up close as they try to compensate for the lack of this instrument by the use of the remaining navigational tools,

mainly magnetic compass and visual observation and how two of the crew members interact to gradually come up with a good solution to the problem (Hutchins 1995: 317-351). As Hutchins describes how the crew handles this, he raises some questions as to how an organisation can learn from its mistakes and improve its organisational structures. Hutchins' main point is that a lot of this organisational learning does not reside in any one of the minds that make up this organisation. Rather, he argues that "several important aspects of a new organization are achieved not by conscious reflection about the work but by local adaptations to the emerging conditions of the work itself" (Hutchins 1995: 317). For Hutchins, there is no-one in control of this interaction. Although there are aspects where the one of the crew members seems to think of a solution and then implementing it, there remains plenty aspects "that are simply not captured by *any* description that relies on explicit representation of the shape of the solution" (Hutchins: 347, authors' italics). In other words, if no one plans and then executes the improvements of the procedure, who or what is acting?

To answer this question, Hutchins draws up a difference between design and evolution. Both can be conceptualised as a form of searching. In the case of 'design', an organisation is imagined as a mental representation in the head of someone, who then searches this representation for possible improvements. One can implement these changes once the design work has been done. The case of 'evolution' occurs when the organisation itself does the searching and implement the adaptive changes while searching: "The evolutionary search *is* the process of adaptation[…]" (Hutchins: 349, authors' italics). For Hutchins, organisational learning is a combination of these two procedures. The different subsystems (agents belonging to the bigger system) design local changes and implement them. However, the results of these changes on the organisational level are unforeseeable for the individual agent:

> [L]ocal designed change may have undesigned and unanticipated consequences for other parts of the system. It may thus provoke local adaptions by other parts of the system as all the parts seek (either by design or not) to satisfy the new environment of constraints produced by the changes in the behaviour of other parts. Ultimately, this process may produce a change in the behaviour in the system as a whole (Hutchins: 350)

The bracketed effort of many individual agents may produce an organisation that takes on a logic of its own. I suggest that it is possible to extend the ideas developed by Hutchins to the fictional organisation of volunteers in *La Peste*. In what follows, I will try to use the insights of Hutchins, so that we can better understand the role and the nature of the organisation of

volunteers that fights the plague and how this organisation makes up an important part of the process of PSM which lies at the centre of this novel as I have proposed.

All the major characters (except as we have seen, Cottard) in *La Peste* work, in a very concrete sense, against the plague. Each one performs an important function in the organisation that helps the medical workers and they all expose themselves to the risk of infection. Despite being central in the medical effort to slow the plague, when telling the story, Rieux does not concern himself much with how the volunteers work together. However, by drawing on Hutchins' account of the navigational team, I suggest that an analysis of the functioning of the volunteer organisation will reveal important aspects of the participatory sense-making of the citizens of Oran. I will investigate two aspects of this working environment. First, following Hutchins, I will examine how this organisation seems to work independently from its individual participants. Although we have very few details of the actual workings of this organisation, being put together in a hurry, we can assume it must be in some degree self-organising. Tarrou founds the group, but the tasks that it takes on (transportation, burials, cremations, sick ward, nurse duty, etc) make it difficult to see how Tarrou, without any formal medical competence, could plan and coordinate the various tasks of the of the group. Regardless, the main point here is that this organisation asks the participants to take part in it with only a partial understanding of this process. Each one fills his role as best as he can. My claim is not that the participants have no agency in it, but that they can only affect local changes. Thus, as proposed by Hutchins, the functioning of the whole has a logic of its own. Secondly, I will investigate, how this organisation might shed light on Rieux's moral outlook. Being the narrator, he seems throughout the novel to carry a special moral weight. However, his actual moral statements can seem fuzzy, even tautological. I suggest that his role in this autonomous organisation of medical workers and volunteers can shed some light on his moral aphorisms. Viewed such, Rieux's moral statements gain explanatory power. Rather than stating a maxim for how to live one's life, Rieux tries to convey that one must adjust to the situation one is in. There is no absolute moral truth, but rather a different role for every person that everyone must fill as best as possible. The point of his aphorisms is not to tell anyone *what* sense to make of the world, but rather to point to *how* one can do it; by doing one's part as a member of a bigger organisation. The enactivist notion of sense-making is essentially about seeing the world from a certain viewpoint, which in turn forms how one sees the world. I suggest that what Rieux's aphorisms is trying to formulate is that in *La Peste*, this viewpoint cannot be self-sufficient, but it is always partly constituted by the interaction with the others.

Despite its importance, the volunteer organisation has according to Rieux nothing to do with heroics. For since humans are more good than bad, it is normal to do one's bit during a crisis: "Ceux qui se dévouèrent aux formations sanitaires n'eurent pas si grand mérite à le faire, en effet, car ils savaient que c'était la seule chose à faire et c'est de ne pas s'y décider qui alors eût été incroyable" (Camus : 575)[112]. After Tarrou has succeeded in recruiting Paneloux into the ranks of the volunteers, he underlines that it is very common to do good when given the opportunity: "Je suis content de le [Paneloux] savoir meilleur que son prêche. – Tout le monde est comme ça, dit Tarrou. Il faut seulement leur donner l'occasion.' Il sourit et cligna de l'œil vers Rieux. 'C'est mon affaire à moi, dans la vie, de fournir les occasions'" (Camus: 586)[113]. In his capacity as the founder of the volunteer group, Tarrou simply provides the occasion to do what everyone would do if given the chance; to do good. When Tarrou, the provider of occasions, asks Cottard to join the group, we read: "'Pourquoi ne viendriez-vous pas avec nous, monsieur Cottard ?' L'autre se leva d'un air offensé, prit son chapeau rond à la main : 'Ce n'est pas mon métier'" (Camus: 591)[114]. Cottard is not so much stopped by a cynical and egoistic interior, but rather by the fact that he cannot envision his role, that is his "métier", from where he stands. The organisation of volunteers is not made up by heroes, rather, it provides the possibility of doing what is normal in an abnormal situation; to work together for the common good.

The journalist, Rambert, gives us a good example of the way that this organisation provides occasions to do good. Visiting the city to write an article on the conditions of the Arab population, Rambert gets stuck in Oran when the plague breaks out. He has a girlfriend back in Paris who he is willing to do anything to be reunited with. In the course of the novel, Rambert goes from persistently looking for a way to escape from the city, legally or illegally, to deciding to stay and dedicate himself fully to his work in the volunteer formation. In conversation with Rieux, Rambert refuses traditional forms of individual engagement, alike to war-heroism: "Eh bien, moi, j'en ai assez de gens qui meurent pour une idée. Je ne crois pas à l'héroïsme, je sais que c'est facile et j'ai appris que c'était meurtrier. Ce qui m'intéresse, c'est qu'on vive et qu'on meure de ce qu'on aime" (Camus: 594)[115]. In fact, Rieux approves of

[112] In reality, it was no great merit on the part of those who dedicated themselves to the health teams, because they knew that it was the only thing to be done and not doing it would have been incredible at the time (101)
[113] 'Everyone is like that,' said Tarrou. 'You just need to give them the opportunity.' He smiled and winked at Rieux. 'It's my task in life, that: to give opportunities' (115)
[114] 'Why don't you join us, Monsieur Cottard?' Cottard got up looking offended and picked up his round hat. 'It's not my job' (120)
[115] Well, I've had enough of people who die for ideas. I don't believe in heroism, I know that it's easy and I've found out that it's deadly. What interests me, is living or dying for what one loves (124)

Rambert's wish to live and be reunited with his love, yet, he underlines at the same time that to stay and fight the plague is not about heroics: "[I]l faut cependant que je vous le dise: il ne s'agit pas d'héroïsme dans tout cela. Il s'agit d'honnêteté. C'est une idée qui peut faire rire, mais la seule façon de lutter contre la peste, c'est l'honnêteté" (Camus : 595)[116]. This idea of 'honnêteté' seems to strike a string with Rambert: "Qu'est-ce que l'honnêteté ? dit Rambert, d'un air soudain sérieux. – Je ne sais pas ce qu'elle est en général. Mais dans mon cas, je sais qu'elle consiste à faire mon métier. – Ah ! dit Rambert avec rage, je ne sais pas quel est mon métier. Peut-être en effet suis-je dans mon tort en choisissant l'amour" (Camus: 595)[117]. This 'honnêteté', I suggest, consists of taking in one's responsibility, performing the task at hand. This is not an individualistic heroism, but rather simply to accept one's role and performing what the situation requires: to do one's job. And, I propose that it is this idea of doing good, not as a hero, but by doing the task at hand as a part of a collective that convinces Rambert to stay in Oran and work alongside Rieux, Tarrou and the others.

A very interesting aspect of Rambert's crucial choice of staying in Oran is the absence of reasoning around this choice. Admittedly, the narrator Rieux does not have access to Rambert's inner thoughts, but even though Rambert discusses his choice with Rieux and others, he still does not formulate any extensive weighing of pros and cons. When Rambert tries to articulate the reasons for his decision, he merely says that he still thinks that love and happiness is more important than anything and that this decision is not a change of mind on his values. However, now he is afraid that, leaving Oran, he will feel alone in his happiness:

> Rambert dit qu'il avait encore réfléchi, *qu'il continuait à croire ce qu'il croyait*, mais que s'il partait, il aurait honte. Cela le gênerait pour aimer celle qu'il avait laissée. Mais Rieux se redressa et dit d'une voix ferme que cela était stupide, et qu'il n'y avait pas de honte à préférer le bonheur. 'Oui, dit Rambert, mais il peut y avoir de la honte à être heureux tout seul' (Camus: 620, my italics)[118]

I suggest that Rambert's explanation for staying points to the nature of the organisation in which he partakes. The team of volunteers provides Rambert with the possibility of doing his part, his 'métier', by participating in a large autonomous organisation. Belonging has become

[116] But I have to tell you this: this whole thing is not about heroism. It's about decency. It may seem a ridiculous idea, but the only way to fight the plague is with decency (125)
[117] 'What is decency?' Rambert asked, suddenly serious. 'In general, I can't say, but in my case I know that it consists in doing my job.' 'Ah!' said Rambert, furiously. 'I don't know what my job is. Perhaps I really am wrong to choose love' (125)
[118] Rambert said that he had thought it over again. He still believed what he believed, but if he went away he would feel ashamed. It would make him uncomfortable loving the woman he had left. But Rieux sat up and said firmly that this was ridiculous and that there was no shame in choosing happiness. 'Yes', said Rambert. 'But there may be shame in being happy all by oneself (162)

more important than his personal sentiments, but, as we see from the italics, this does not imply a change of mind. Rambert further explicates his choice: "Ce n'est pas cela, dit Rambert. J'ai toujours pensé que j'étais étranger à cette ville et que je n'avais rien à faire avec vous. Mais maintenant que j'ai vu ce que j'ai vu, je sais que je suis d'ici, que je le veuille ou non. Cette histoire nous concerne tous" (Camus: 621)[119]. Rambert here sums up his gradual process from being a stranger who wants to leave by any means possible, to realising that he belongs in Oran. I suggest that, read in the current framework, Rambert's choice to stay is in large part motivated pre-reflectively and arises from the effect of participating in a self-organising group such as the volunteers.

Rieux repeats in different versions his claim that to do one's job is what matters throughout the book. And admittedly, this is not very concrete nor is it particularly original. Colin Davis, in an article on *La Peste*, claims that Rieux's many moral aphorisms, despite claiming to be clear and unambiguous, are in fact almost meaningless. He says of one these aphorisms that:

> It is hard to argue against such a statement because, while apparently offering a moral principle, it actually says next to nothing. The tautological 'il fallait faire ce qu'il fallait faire' asserts that there are duties and obligations, but says nothing about what they might be (Davis 2007: 1017)

I concur with Davis that Rieux's moral aphorisms often have little content in themselves. However, understanding *La Peste* as a moral dialogue which takes place primarily at a pre-reflective level, lets us see that there is more to it than just a simple tautology. My claim is rather that the words of Rieux are simply one part (and a quite small one) of his moral outlook.

To understand this outlook, we must understand Rieux as deeply situated in his world, as a part of something bigger. It is worth looking at how Rieux's moral aphorisms arise in their narrative context:

> Le docteur ouvrit la fenêtre et le bruit de la ville s'enfla d'un coup. D'un atelier voisin montait le sifflement bref et répété d'une scie mécanique. Rieux se secoua. Là était la certitude, dans le travail de tous les jours. Le reste tenait à des fils et à des mouvements insignifiants, on ne pouvait s'y arrêter. *L'essentiel était de bien faire son métier* (Camus: 520, my italics)[120]

[119] 'That's not it', said Rambert. 'I always thought that I was a stranger in this town and had nothing to do with you. But now that I have seen what I have seen, I know that I come from here, whether I like it or not. This business concerns all of us' (162)

[120] The doctor opened the window and the noise of the town swelled suddenly. From a nearby workshop came the brief, repeated sounds of a mechanical saw. Rieux shook himself. This was certainty: everyday work. The

By opening a window, Rieux is stimulated to reflect. First, the sounds of the city enter, then the rhythmic sounds of the nearby workshop. I suggest that this zooming in serves to fill his aphorism with content. It is being part of a community, an entire city, where everyone does their part, which gives meaning to one's occupation. Doing *your* job is what is important, for by doing that, one makes possible a large and independent organisation such as a big city. And, I suggest, it is these mechanisms that will later contribute to make possible the autonomous organisation which fights the plague.

At the very last page of the novel, Rieux places his story of Oran during the plague in a bigger picture. Rieux signals again this need to work and to fill one's function in something which is bigger than oneself:

> [C]ette chronique ne pouvait pas être celle de la victoire définitive. Elle ne pouvait être que le témoignage de ce qu'*il avait fallu accomplir* et que, sans doute, devraient accomplir encore, contre la terreur et son arme inlassable, malgré leurs déchirements personnels, tous les hommes qui, ne pouvant être des saints et refusant d'admettre les fléaux, s'efforcent cependant d'être des médecins (Camus: 681, my italics)[121]

Firstly, Rieux wants to bear witness to what I have suggested as an important part of his moral outlook: that which had been necessary to do (in italics). This does of course refer to the events that took place during the plague, but I suggest that it can also be read as pointing to Rieux's intuitions regarding the organisational structures that lie behind the medical work. Davis thought this almost meaningless as moral content, but I propose that what Rieux points to is the need to let go of one's own full individuality and let the interaction itself take part of the control. In a devastating catastrophe such as the plague, where a whole city worked together to stop it, what is important is not to follow some ever-valid personal moral, but rather to understand which tasks each one must accomplish in a large and self-organising system. The last sentence connects this moral outlook with Rieux's occupation. To do his job in the large organisation that arises from Oran's battle with the plague, there is no need for individual soul-searching. Rather, he simply needs to perform the task at hand: In the capacity of being a doctor, reduce human suffering as much as possible.

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rest hag by threads and imperceptible movements; one could not dwell on it. The main thing was to do one's job well (33)

[121] He knew that this chronicle could not be a story of definitive victory. It could only be the record of what had to be done and what, no doubt, would have to be done again, against this terror and its indefatigable weapon, despite their own personal hardships, by all men who, while not being saints but refusing to give way to pestilence, do their best to be doctors (237)

Through this analysis of the effort by medical and volunteer personnel to battle the plague, we have seen that by doing their part in the relief work, the active members connect to an interaction that is bigger than the sum of its parts. As we saw from Hutchins' navigation crew, an organisation can learn without any one of the participants being in control. Together with our analysis of the strengthening of the feeling of belonging supported by the findings from MMM, I claim that this allows us to understand Camus' novel as depicting how a social interaction is formed and strengthen, to the degree of gaining an autonomous character. This leads us back to our framework, the enactivist concept of PSM, where these types of social interactions are viewed as a way to create sense together. Read within this framework, I propose that the characters of *La Peste* can be said to do exactly this. They come together and form an autonomous organisation which functions as participatory sense-making. From seeing their worlds from an individual viewpoint, the participants in the volunteer group become so tightly coupled together that they see the world and make sense of it from their position in this interaction. This, I propose, is the value of the moral dialogue. This value is not to be found in any moral aphorism of Rieux or any of the other characters alone, but rather in showing how from the events that take place in Oran emerges an interaction that takes on an autonomous nature and which makes possible for the inhabitants of Oran to make sense of the plague.

4.6 Seeing the links. Participatory sense-making through narration

In this final section on *La Peste*, we turn to the role of the narrator, Rieux. Following Yanna Popova's enactivist account of narrative, we will see that how Rieux tells the story goes hand in hand with the events that take place. I propose that through the narrative techniques that Rieux uses and the aspects of the fictional world he chooses to emphasize, he highlights several of the embodied mechanisms of coordination that I have read as constituting a process of PSM. In addition, I will use this investigation of Rieux's role as narrator to provide a springboard for a more speculative account of the effect of Camus' novel on its readers. However, when we now turn to Rieux's narrative techniques, it is important to underline that I am not claiming that he must necessarily be read as being consciously aware of how they function. Rather, as Rieux is at the centre of the joint effort of the inhabitants of Oran to battle the plague, what I claim is that he can be understood as seeing the world according to his role in this struggle. As we saw in our discussion of O'Regan and Noë, we see the world as we act in it. I suggest then that the way Rieux describes the city of Oran and its inhabitants should not be seen as a deliberate narrative strategy but rather as connected to his actions. Being a

key figure in the efforts to fight the plague, an effort that I have read as central to the creation of a large-scale interaction between its participants, Rieux is consequently drawn to those aspects of the fictional world that serve to draw people together.

Despite claiming only to be a *chroniqueur*, one who simply write down what he has seen, Rieux dwells quite extensively on ambient descriptions; the sounds and the smells of the city, as well as the weather and nature. In my analysis of *Il Barone rampante*, I discussed Biagio's descriptions of the most minute details of the trees with regards to the notion of '*l'effet du réel*' put forth by Roland Barthes. Instead of viewing these details as a way to signify reality, I suggested, using a term coined by Emily Troscianko, to consider them as cognitively realistic. I propose that Rieux's story can be said to be cognitively realistic in a similar manner. As we saw in the discussion of PSM, coordination plays an important role in social interaction. Drawing on these insights, as well as Giovanna Colombetti's book *The Feeling Body. Affective Science Meets the Enactive Mind*, I aim to show that Rieux's way of writing makes tangible some of the coordinating mechanisms that I have suggested strengthen the interaction between the citizens of Oran which takes form during the novel.

Rieux's descriptions often start from atmospheric phenomena, such as sounds or weather spreading through the city, and then zoom in on the citizens. This type of description recurs throughout the novel. As the weather has an effect on the plague (warm weather and wind propagate it faster), the whims of the weather often serve to frame the events, as these introductory sentences to chapter four show:

> Pendant les mois de septembre et d'octobre, la peste garda la ville repliée sous elle. Puisqu'il s'agissait de piétinements, plusieurs centaines de milliers d'hommes piétinèrent encore, pendant des semaines qui n'en finissaient pas. La brume, la chaleur et la pluie se succédèrent dans le ciel (Camus: 608)[122]

As the people of Oran are at a standstill, the weather seems to contribute to this; the fog, the heat and the rain make it hard to move. Hundreds of thousands of people, something which would make up the bigger part or the entire city at the time, cannot move; the bad weather keeps them in place. The sun also plays an important part as the plague shifts from bad to worse:

> Le soleil se fixa. Des flots ininterrompus de chaleur et de lumière inondèrent la ville à la longueur de journée. En dehors des rues à arcades et des appartements, il semblait

[122] During the months of September and October the plague kept the town bent beneath it. As it was the case of marking time, many hundreds of thousands of people were still kicking their heels for endless weeks. Mist, heat and rain followed one another in the sky (147)

> qu'*il n'était pas un point de la ville* qui ne fût placé dans la réverbération la plus aveuglante. Le soleil poursuivait nos concitoyens dans tous les coins de rue et, s'ils s'arrêtaient, il les frappait alors. Comme ces premières chaleurs coïncidèrent avec un accroissement en flèche du nombre des victimes, qui se chiffra à près de sept cents par semaine, une sorte d'abattement s'empara de la ville (Camus: 562, my italics)[123]

By describing first how the sun drowns the city with heat, Rieux underlines, as we see by the italics, how not a single corner escapes its scorching heat. Then, he closes in on the inhabitants as they try to avoid this heat. This serves to underline the common fate of the citizens of Oran. Then, describing how the plague's ravages intensify at this point, Rieux creates an embodied feeling that all the inhabitants of Oran endure the same fate. As we saw in our discussion of PSM, coordination of movements lies at the core of social interaction. Drawing on this claim, I propose that the numerous examples of descriptions of the weather link to the embodied processes of coordination that take place between the citizens of Oran. In our two examples, we see how the weather influences every one, whether one is at a standstill or melting away in the scorching sun. Thus, these descriptions recreate the strong feeling of being trapped in the same confined space and being haunted by the same deadly disease.

At a much smaller scale, and with slightly different means, Rieux creates a sense of coordination and of unity between himself and Tarrou as the two go for a swim in the sea. As the weather is getting colder, an end to the plague is finally possible to envision. Rieux and Tarrou step out on a terrace with a view of the city. Here, Tarrou tells his tale of why he has come to Oran, and how he has dedicated his life to fighting on the side of the victims. Just before he decides to tell Rieux his story, the two look over the rooftops of the city where they can just spot the ocean: "[P]ar-dessus quelques rues et le port invisible, le regard plongeait sur un horizon où le ciel et la mer se mêlaient dans une palpitation indistincte" (Camus: 642)[124]. Then, they look for some time at the light coming from a lighthouse when finally, Rieux breaks the silence:

> 'Il fait bon, dit Rieux, en s'asseyant. C'est comme si la peste n'était jamais montée là.' *Tarrou lui tournait le dos et regardait la mer*. 'Oui, dit-il après un moment, il fait bon.' Il vint s'asseoir auprès du docteur et le regarda attentivement. *Trois fois, la leur reparut dans le ciel. Un bruit de vaisselle choquée monta jusqu'à eux des profondeurs de la rue. Une porte claqua dans la maison* 'Rieux, dit Tarrou sur un ton très naturel,

[123] The sun settled in the sky. All day long, uninterrupted waves of heat and light flooded the town. With the exception of streets with arcades and people's flats, it seemed that was no point in the town that was not subject to the most blinding glare. The sun pursued our fellow-citizens into every corner of the street and, if they stopped, then it struck them. Since this first heatwave coincided with a sharp increase in the number of victims, which rose to nearly seven hundred a week, the town was seized with a kind of despairing exhaustion (85-86)
[124] On the other side, above a few streets and the port (which was invisible), the eye was lost in a horizon where sky and sea mingled in a vague throbbing (186)

> vous n'avez jamais cherché à savoir qui j'étais ? Avez-vous de l'amitié pour moi ?" (Camus: 642)[125]

These ambient descriptions seem to be causally linked to Tarrou's decision of opening up to Rieux. I propose that this decision takes shape in two key moments (in italics). First, Tarrou turns away from Rieux and looks at the ocean which surrounds all of Oran and thus functions to remind him of his role in something bigger than him. I suggest that it is here that his decision takes form. Then he comes and sits beside Rieux. They sit in silence for some time (three turns from the lighthouse) and then they hear the sounds of every-day life coming from Oran. These sounds bind him together with the inhabitants of Oran, which in turn further strengthens his bond with Rieux. I suggest that it is here that the decision becomes final, and Tarrou begins his tale with the two questions included in the quote. In the framework of PSM, the ocean and the sky and how they embrace the entire city, then the noises coming from its inhabitants, all serve to strengthen his coordination to Oran. This in turn produces a need to belong and to interact with his friend Rieux.

In the scene that follows, the same type of mechanisms is in place as they descend from the rooftop terrace and decide to go for a swim in the sea. Being high up in the medical organisation, their papers allow them to pass the guards and exit the city. It is night, and the moon lights up the sky. Behind them lies the city as Rieux jumps in the water. I will quote this scene at length:

> Il nageait régulièrement. Le battement de ses pieds laissait derrière lui un bouillonnement d'écume, l'eau fuyait le long de ses bras pour se coller à ses jambes. Un lourd clapotement lui apprit que Tarrou avait plongé. Rieux se mit sur le dos et se tint immobile, face au ciel renversé, plein de lune et d'étoiles. Il respira longuement. Puis il perçut de plus en plus distinctement un bruit d'eau battue, étrangement clair dans le silence et la solitude de la nuit. Tarrou se rapprochait, on entendit bientôt sa respiration. Rieux se retourna, se mit au niveau de son ami, et nagea dans le même rythme. Tarrou avançait avec plus de puissance que lui et il dut précipiter son allure. Pendant quelques minutes, ils avancèrent avec la même cadence et la même vigueur, solitaires, loin du monde, libérés enfin de la ville et de la peste. Rieux s'arrêta le premier et ils revinrent lentement, sauf à un moment où ils entrèrent dans un courant glacé. Sans rien dire, ils précipitèrent tous deux leur mouvement, fouettés par cette surprise de la mer. Habillés de nouveau, ils repartirent sans avoir prononcé un mot :

[125] 'It feels good,' said Rieux, sitting down. 'It's as though the plague had never come up here.' Tarrou turned his back on the doctor and looked at the sea. 'Yes,' he said, after a short pause. 'It feels good.' He came over and sat down beside Rieux, looking closely at him. Three times the light reappeared in the sky. A sound of crockery came up to them from the depths of the street. A door slammed in the house. 'Rieux,' Tarrou said in a very natural voice. 'Have you never tried to find out who I am? Do you see me as a friend? (186-187)

> Mais ils avaient le même cœur et le souvenir de cette nuit leur était doux (Camus: 650)[126]

First, we are told how Rieux establishes a rhythm, swimming at a regular pace, as he hears the sound of Tarrou jumping in. He waits for him, lying at the back looking at the stars and the sky. As we have seen, looking at the sky which eclipses the whole of Oran, is something that would bring a feeling of belonging. This underlines how this scene is framed within indicators of a very strong coordination with the city of Oran; as the two swim, they are surrounded by the ocean and the sky which connect to the city. Then from this framework of a larger unity of coordination, Rieux focalises on the coordination between the two friends.

Here it might be useful to skip back a bit, to the section on PSM and the scene in the hallway. There, the two co-workers enter in an interaction which, against the will of both, prolongs itself until one of them breaks the spell. Although two very different situations, I suggest that the mechanisms are similar to the ones present in the nightly swim. We see first how Rieux and Tarrou coordinate. Tarrou approaches and we see that Rieux can hear him breathe. First, they swim at the same pace, but as Tarrou is physically stronger, Rieux must adapt. Then, for some minutes, they establish the same pace. At his point, the two forget about everything but their communion: "[S]olitaires, loin du monde, libérés enfin du la ville et du la peste". Now their rhythm is so well established that when they enter a cold courant, without a word, they adjust their pace in coordination. Once dressed they leave, again without saying a word. Lastly, Rieux tells us that how they have the same heart. This last part is interesting, especially considering that just before, when they coordinated their swim, Rieux described Tarrou's breathing. Having the same heart works of course as a metaphor, but I suggest that it could also point to a physical coordination of breathing and heart rhythm patterns. It has been shown that the heartbeats of participants in social interaction can coordinate, for example during choir singing (Müller and Lindenberger 2011). During their coordinated swim, it is therefore possible that the two friends also have coordinated their heartbeats and breathing. I propose that what Rieux tries to evoke with the nightly swim is the depiction of how the two

[126] He swam steadily. Behind him the beating of his feet left a seething foam and the water ran the length of his arms to stick on his legs. A heavy splash told him that Tarrou had dived in. Rieux turned onto his back and stayed motionless, looking up at the bowl of the sky, full of moon and stars. He took deep breaths. Then the sound of something striking the water became more and more distinct, strangely clear in the silence and loneliness of the night. Tarrou was swimming towards him and Rieux could soon hear his breathing. He turned round, came alongside his friend and swam with the same rhythm. Tarrou was moving forward more powerfully than he was and he had to speed up. For a few minutes they swam on with equal strokes and equal strength, alone, far from the world, finally free of the town and the plague. Rieux was the first to stop swimming and they returned slowly, except at one moment when they came into an icy current. Without saying a word, they both speeded up, driven on by this surprise in the sea. Once they had dressed again they left without saying a word. But their hearts were one, and the memory of that night was sweet for both of them (198)

friends gradually reach a coordinated rhythm and an understanding of each other that goes deeper than words. As this scene is placed just after their friendly talk this confirms its importance, and so does the short but effective summary: “le souvenir de cette nuit leur était doux”. However, what is the effect of this coordination?

In her book, *The Feeling Body. Affective Sciences Meets the Enactive Mind* from 2014, Giovanna Colombetti criticises theory of mind approaches to the affective sciences and claims that, most of the time, we understand other people rather with the help of very basic skills, such as imitation and responding to others people’s bodily signals: “These skills, it has been proposed, already manifest, or better embody or constitute, a *pragmatic* form of understanding others” (Colombetti 2014: 172, authors italics). Her point is, that instead of explicitly interpreting the signals of others, “in the concrete encounter it is more often the case that the other’s mental states are picked up ‘directly’ by the observer, namely, without the need to engage in theorizing or pretend states” (Colombetti: 175). As Rieux and Tarrou synchronized their movements through the water, slowly creating a joint rhythm, they feel connected. I suggest that no mental representations or mind-reading need to be present for this to happen, but rather that this scene functions as a very dense example of the novel’s use of coordination mechanisms to create a feeling of interconnectedness and to draw its characters closer to one another. Colombetti claims that this direct understanding of others can happen through mimicry, which functions as a form of “social bonding” (Colombetti: 194, italics removed). Although the evidence is not conclusive, Colombetti claims that mimicry makes up an important part of our pragmatic way of interacting: “It may well be that an important function of mimicry is precisely to make our experiences converge via phenomenal contagion, so that we feel more connected to one another” (Colombetti: 195). I propose that Rieux and Tarrou’s swim can be understood to do exactly that; they connect simply by coordinating their bodies while swimming at the same pace in the sea.

These coordinating mechanisms also seem to be an important part of Rieux’s motivation for writing down the story of the plague. Throughout the novel, we have seen how Rieux repeatedly connects the citizens of Oran by his descriptions of the sea, the sun, the sky and the sounds of the city, all elements that are present to all and thus pointing to their mutual fate. As the plague comes to an end, and the city gates are reopened, we shall see how all these elements come together and shape Rieux’s decision to write the story of what happened in Oran. In the last scene of the novel, Rieux again ascends the same rooftop as he and Tarrou, now tragically dead from the plague, had their talk. From this vantage point he looks out on the city and reflects on what has happened there:

> Cette nuit n'était pas si différente de celle où Tarrou et lui étaient venus sur cette terrasse pour oublier la peste. La mer était seulement plus bruyante qu'alors, au pied des falaises. L'air était immobile et léger, délesté des souffles salés qu'apportait le vent tiède de l'automne. *La rumeur de la ville, cependant, battait toujours le pied des terrasses avec un bruit de vagues* (Camus: 680-681, my italics)[127]

As we have seen earlier, the sea and the sounds of the city are present. Here, they seem to merge (in italics), as the sounds of the city take the form of waves that beat up unto the terraces.

This merger is continued in the passage where Rieux decides to write the story of the plague. Notice how there seem to be two cognitive processes going on in this passage. The first one is of a type of mental representation, thinking of lost friends and of an aphorism (a quite trivial one) told by an old patient. The second, which I have put in italics, consists of the mechanisms of coordination that I have discussed so far:

> Du port obscur montèrent les premières fusées des réjouissances officielles. La ville les salua par une longue et sourde exclamation. Cottard, Tarrou, ceux et celle que Rieux avait aimés et perdus, tous, morts ou coupables, étaient oubliés. Le vieux avait raison, les hommes étaient toujours les mêmes. Mais c'était leur force et leur innocence et c'est ici que, par-dessus toute doleur, *Rieux sentait qu'il les rejoignait. Au milieu des cris qui redoublaient de force et de durée, qui se répercutaient longuement jusqu'au pied de la terrasse, à mesure que les gerbes multicolores s'élevaient plus nombreuses dans le ciel, le docteur Rieux décida alors de rédiger le récit qui s'achève ici* […] (Camus : 681, my italics)[128]

In this scene Rieux details to his readers the exact moment he decides to write down the story. His decision is undoubtedly influenced by the first reasoning, however, this reasoning, as is often the case with Rieux, is quite vague. After this reflection, the embodied mechanisms of coordination take over. Significantly, Rieux *feels* that he joins his fellow man, and I suggest that it is at this moment that the decision takes form. Just as Tarrou when he decided to tell Rieux his life story, it is the sounds of the city, the ocean and the sky which form Rieux's decision to tell his story. First, we hear the cries coming from the city. Then we are told how

[127] This night was not so different from the one when Tarrou and he had come out on this same roof to forget the plague. The sea was louder than it had been then, at the foot of the cliffs. The air was still and light, freed from the tainted breath brought by the warm winds of autumn. The noise from the town, however, was still beating with a sound like waves around the bottom of the terraces (237)

[128] Out of the dark port rose the first rockets of the official celebrations. The town greeted them with a long, muffled exclamation. Cottard, Tarrou, the men and the woman whom Rieux had loved and lost, all dead or guilty, were forgotten. The old man had been right, men were always the same. But this was their strength and their innocence, and it was at this point, above all suffering, that Rieux felt he was one of them. In the midst of the cries that increased in strength and duration, echoing a long way right to the foot of the building [terraces], while the many-coloured wreaths and showers of fireworks rose in ever greater numbers into the sky, Dr Rieux decided to write the account that ends here (681)

these sounds ring back and forth up against the terraces. If we remember the sentence in italics from the last quotation, placed just one paragraph before in the novel, we saw how the sounds of the city and the waves of the ocean merged. With this relationship established, Rieux does not need to be as explicit, but we still feel the sounds splashing up against the buildings as waves. Then lastly, Rieux describes how the fireworks break loose and light up the sky. I suggest that what this passage shows is how the coordination mechanisms can be said to be stronger than the more explicit reasoning. Just as with the swim in the ocean, a more explicit reflection (in the case of the swim; Tarrou telling his story) is followed by the embodied mechanisms of coordination. And, also here, the latter mechanisms seem to be given priority. By hearing the sounds of the city splashing as waves and looking to the sky which lights up in fireworks visible for all the citizens of Oran, Rieux brings up and merges the most important elements of his descriptions; the city, the sea and the ocean. And through these, Rieux coordinates with Oran as a unit. It is the moment when he *feels* this coordination, that he forms his decision to write down his story of human cooperation during a plague.

By his style of writing, his descriptions of the sea, of the sounds and smells of the city and of the weather, I claim that Rieux strengthens what I have proposed as the main theme of the novel. I have used the enactivist conception of PSM as a framework for this investigation of *La Peste*. I have proposed that Rieux's story depicts strong coordination mechanisms on the story level. The characters come together as the meaningless deaths threaten their sense of the world and through the medical effort, they create an organisation which lets them partake in something bigger than the single individual. As we saw in our introductory discussion of the allegoric relationship to the Second World War, this book has often been read in regard to its precision in describing historical events. Instead of producing a more or less faithful mental representation of the war, I suggest that what is at stake is another form of representation. Read in an enactivist framework, Camus' novel represents a cognitively realistic portrait, on both story and discourse level, of the embodied and interactional cognitive mechanisms of large-scale PSM.

Yet, what is the effect of this cognitive realism? If we do not read this novel to get a glimpse into a historical moment, what does happen to us as we read Camus' novel? In a study from 2009, Proulx and Heine investigated how threats to meaning can help create a better capacity to detect new patterns of meaning. In their study, the authors let two sets of test subjects undergo two different types of meaning threats. One was to argue against the coherence of oneself, and the other, most relevant to our purposes, was to read the absurd novel "Ein Landarzt" by Kafka. The authors expected that by these threats to the subjects'

meaning framework, they would gain a heightened sense for seeing new patterns in an artificial grammar learning task[129]. The results were that in both conditions, the test-subjects showed a significantly heightened capacity, both regarding the count of patterns perceived as well as correctly perceived patterns, in comparison with the control groups (Proulx and Heine 2009). For present purposes, this study is interesting in two ways. Firstly, it shows that threats to meaning create a heightened sense for seeing new patterns. Secondly, that this capacity is possible to achieve through reading literature (See also Proulx, Heine and Vohs 2010 for the effect of absurd literature, humour and art on affirming meaning frameworks). When we read a short story that creates a threat to one's sense of meaning, such as Kafka's, this increases our capacity to see patterns. I speculate then that these findings imply that when a reader approaches Camus' novel and is faced with the meaningless deaths that the plague causes, he or she could be more inclined to see a pattern in the descriptions of Rieux. As the ambient descriptions of the sea, the sky and the city often is closely connected to important parts of the plot, I propose that a heightened awareness of patterns would allow the reader to connect these descriptions to the events at plot level. I propose that noticing these patterns would make the reader more likely to read Rieux's previously discussed descriptions and the swimming scene as coordinating mechanisms which serve to coordinate the characters of Camus' novel in their process of PSM.

I further speculate, that similarly as in *Il Barone rampante,* the reader of *La Peste* (of course in a much weaker sense than the fictional characters) is invited to feel the same mechanisms of coordination as the citizens of Oran. I speculated that, thanks to our mirror neurons, when we read about Cosimo's sensorimotor adventures, we move alongside Cosimo through the trees. I further speculate that something similar is happening when we read Rieux's story. By means of the cognitively realistic manner that he writes his story, the readers would not be passive bystanders to the events but participate in the same embodied coordination as the characters. This would shed light on Rieux's highly general statement on the last page of the novel: "[P]our dire simplement ce qu'on apprend au milieu des fléaux, qu'il y a dans les hommes plus de choses à admirer que des choses à mépriser" (Camus: 681)[130]. To understand this last aphorism, we need to see that what makes humans good is

[129] Artifical grammar learning (AGL) is a much-used method in psychology, in which the participants are asked to detect artificial grammatical patterns in letter-strings. This method measures two things, the capacity to see patterns in seemingly random letters, and the capacity to *correctly* see patterns (the patterns that are actually there).

[130] To say simply what is it that one learns in the midst of such tribulations, namely that there is more in men to admire that to despise (237)

their capacity to form a communion and to make sense through working together, in other words, participatory sense-making. And I propose that this is what we as readers learn as well. Not so much through the characters' mental content or dialogues, but rather through feeling the same embodied mechanisms of coordination as they do, the readers might experience how it is to come together and participate in a shared project. I speculated that when the plague threatens the readers meaning frameworks, their capacity of seeing patterns is heightened. I argue then, that when death arrives in Oran, not only the characters participate in creating sense, the readers join in as well, when they notice and feel the same mechanisms of coordination that connect the inhabitants of Oran. Rieux's aphorism have little value in itself, but when we have been invited to feel in on the coordination of him and the others, it starts to make sense.

4.7 Coordination, sense-making and the plague

We have seen how a highly complex interaction between the inhabitants of Oran, and especially the members of the volunteer organisation, can be said to emerge when the plague hits. This interaction is created in large part by different mechanisms of coordination. Throughout this chapter we have seen that a mind-reading approach to this process is insufficient to explain how this takes place. Through the concept of participatory sense-making I have framed this discussion in an enactivist framework instead. Rieux and the others come together to create sense out of their worlds when they are surrounded by death on all sides. This shows well how limiting our minds simply to that which is inside our skulls might lead us to miss crucial aspects of how we communicate and interact with other people. Cosimo in *Il Barone rampante* made sense out of his world by his movements in the trees. In this analysis of *La Peste*, we have seen how one can make sense by coordinating with others through a wide range of other mechanisms. And the common feature of all these mechanisms, is that they require that we extend out of our individual existence and join something bigger than ourselves. Where Cosimo made sense of his existence on the basis of his sensorimotor coupling to the trees, the citizens of Oran, by entering in interaction with their cohabitants, make sense of the plague by forming a new way of existing together.

5. Conclusion

In the course of this thesis, I have tried to show how *San Manuel Bueno, mártir*, *Il Barone rampante* and *La Peste* all address the question of how the individual can be reconciled with the society that surrounds him or her. Angela showed us the way by pointing to literary writing and creativity as the way out of Manuel's dualism. Further, we saw how Biagio told the tale of his brother Cosimo and how this latter succeeds in becoming a well-integrated but independent member of society through his sensorimotor engagements with the trees. Finally, we have seen how Rieux can be said to portray how the plague causes all of Oran to participate in a social interaction which allows them to make sense of the horrible events together.

The framework for my reading of these novels has been what is often referred to as the second-generation cognitive science. In the last thirty years, the insights from this very wide label have changed the way we understand our minds in profound ways. Instead of seeing the brain as the exclusive *locus* of thinking, the diverse approaches contained within this second generation all converge to underline how our minds are intrinsically connected to our environments and our bodies. Within this large field of research, I have taken a special interest in the enactivist approach to the human mind which sees all existence as a lived experience. In this approach, all forms of cognition are embodied ways of making sense of the world that surrounds the organism, be it bacteria or human beings. Seen through these enactivist lenses, I have argued that what all these books have in common is that they refuse to confine human cognition and existence exclusively to the individual brain. I have tried to show that the narrators of these novels, in very different ways, all suggest that the protagonists must extend their mind outwards to create a harmonic relationship with the society of people that surrounds them. For Angela in Unamuno, the world should be understood creatively, through writing, and she seems to suggest that Manuel must become part the different aspects of his environment instead of seeing them and himself as irreconcilable opposites. As for Cosimo in Calvino, he builds his identity and whole way of thinking on his sensorimotor engagement with the trees. Finally, by becoming a part of an autonomous social interaction, Rieux in Camus makes sense out of the ravaging of the plague from the viewpoint of one of many participants in this interaction. In all novels, extending one's mind outwards and engaging with one's social and physical surroundings have the effect (if only potentially in *San Manuel Bueno, mártir*) of creating a positive relationship with society.

Drawing on Yanna Popova, I have read these novels as an interaction between the reader and the narrator. Popova claims that it is the narrator who makes sense out of fictional world, and that a novel is the narrator's enactment of this world. The fictional world is always seen *by someone*. This means that the way it is described is just as important as what is happening. I have analysed how the narrators have used different narrative techniques such as motion verbs, tactile adjectives and ambient descriptions. To conceptualise the way the narrators perceive the fictional worlds, I have used the term 'cognitively realistic'. I have proposed that, although *San Manuel Bueno, mártir* only hints in this direction, *Il Barone rampante* and *La Peste* are both cognitively realistic. By reading these books as an interaction between narrator and reader, we have seen how the narrators describe the world in a way that is congruent with the way humans actually perceive and understand their surroundings according to the enactivist approach to the human mind. And, since sense-making is at the core of all cognition for the enactivists, I have claimed that this cognitive realism allows us to see how the main protagonists make sense of their worlds. By the detailed motion verbs and tactile descriptions, we saw how Cosimo makes sense through his movements. His life is about maintaining these ways of moving (including his intellectual movements), jumping from tree to tree. As for Rieux, through his descriptions of the mechanisms that serve to coordinate the citizens of Oran, we can understand how he and the other characters make sense of the world by participating in a large-scale interaction where each participant sees the world from their position in this interaction.

Throughout my investigation, we have seen how this cognitively realistic extending of the protagonists' minds results in them having a good (if not always unproblematic) relationship with the people and the society that surround them. This puts *Il Barone rampante* and *La Peste* at odds with Lukács and Moretti's account of the history of the novel. For the latter two, the conflict between individual and society runs like a thread through the realist novel of the late 18th and 19th century. Calvino and Camus' narrators' way of seeing the fictional world from an embodied viewpoint separates them sharply from the stereotypical narrator of 19th century realism. This view would 'see' the events as if from above, often with an omniscient insight into the characters and the societal mechanisms that affect them. According to enactivism, such a bird's-eye view is impossible. The world is always seen from a subjective point of view which is dependent on the norms of the perceiver. Biagio and Rieux enact exactly this principle as narrators. They are present in the fictional world and thus they perceive it and make sense of it according to their own history and role in the events that take place. However, this does not mean that their stories effect some sort of subjective turn towards the inner life of their protagonists. As we have seen, Moretti claimed that the First World War ended the

Bildungsroman tradition, and modernism came to the fore. This change resulted in shift towards modernism's well-known focus on the mental life of the protagonists. Yet, Biagio and Rieux is far from the stereotype stream-of-consciousness narrator of modernist novel. In fact, there is a striking lack of reference to inner thoughts in *Il Barone rampante* and *La Peste*. Thus, these two novels seem to place themselves at a middle ground between an objective and a subjective view of the world.

This leads us to what I claimed was the cognitive flipside of Lukács and Moretti's account of the history of the novel: The computational approach to the human mind. In this approach, the brain would be clearly delineated from both the body and its physical and social surroundings. I have tried to show that Calvino and Camus' novels transgress this dualistic divide between the subjective inner life of the brain and the objective physical world. Their narrators, Biagio and Rieux, are far from all-knowing and objective, but at the same time they do not seem to worry much at all of the secluded inner life of their protagonists. Rather, in my analysis, these novels construe the mind as something which is happening as much outside the skull as inside. Through sensorimotor and social engagement, the borders separating world and brain become unclear and partly dissolved. It is the enactivist framework which allows us to see this aspect clearly.

This also points to a different way of reading. Instead of being given insights to the societal mechanisms (realism) or the inner mental world of the protagonists (modernism), I propose that *Il Barone rampante* and *La Peste* do something different. In keeping with the enactivist view of perception as something we do, I propose that, instead of *showing* us the world, these novels rather want to *take us along*. Through motion verbs and tactile details, I have suggested that Biagio recreates for the reader the embodied feeling of running in the trees alongside Cosimo. Rieux on the other hand, recreates the coordination mechanisms that draws together the inhabitants of Oran. In both books, the visual details are not there so much to create an image, but rather to create an *experience* of what it is like to see the world in this way. Lisa Zunshine thought of detective novels as a work-out for our mind-reading capacities. As for *Il Barone rampante* and *La Peste*, I suggest that they rather exercise our capacity of seeing the connections between our sensorimotor capacities, social cognition and our very own consciousness. We have gone along with Cosimo through the branches, and we have heard and seen the sounds of the city, the sky and the ocean and thus felt like a part of Oran's struggle. Finally, in keeping with Biagio, I suggest that perhaps instead of living in the trees (or worse, experiencing a catastrophe), we can experience some of the same cognitive effects as do Cosimo and Rieux (of course, less intensively) by reading about them safely from our

armchairs. Perhaps, by being taken along in their dramatic stories, we can begin to dissolve the strict limits between ourselves and the world that surrounds us and thus make sense of our world in a way that creates a more positive relationship to society without experiencing this as giving up on our personal freedom. I suggest that reading these novels might be a small step towards this.

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