

IS LANGUAGE A PREREQUISITE FOR BELIEF?  
AN ALTERNATIVE APPROACH TO  
FALSE-BELIEF UNDERSTANDING AND META-REPRESENTATION

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## DECLARATION OF ORIGINALITY

I, Ayşe Büşra Sertalp, certify that

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## ABSTRACT

### Is Language a Prerequisite For Belief?

#### An Alternative Approach to False-belief Understanding and Meta-representation

Positioning belief within the discussion of philosophy of mind is one of the major issues in this thesis. I find most of the theories developed in this area to be somewhat process-blind and one-sided, such as the ones I investigate within the body of my project: Davidson and Armstrong. Developing a mono system philosophy of mind understanding that attributes all importance to language causes major problems within the discussion, as well as ignoring a way much more crucial aspect: false-belief understanding. In order to shed more light on the process of belief acquirement, I refer to studies in the field of developmental psychology. The comparison of non-human animals and human babies is crucial for my project since I find strong resemblance between them in terms of mental capabilities until certain ages of the babies. Developmental psychology studies point out to a more crucial mental capability rather than language, false-belief understanding, and stress the importance of a dual system understanding of mind. I leverage this approach within my project and try to blend these findings with philosophical approach by importing Heidegger's understanding of Dasein and its everydayness. Heidegger opens a gate for me to discuss dual system of mind, which explains the complex belief mechanism distinguishing human beings from other animals with meta-representation and this, in turn, is the mental capacity for developing false-belief understanding.

## ÖZET

### İnanç Dil için Bir Önkoşul mudur?

#### Yanlış-inanç Kavrayışı ve Üst-temsile Alternatif Bir Yaklaşım

İnancı, zihin felsefesi tartışmasında konumlandırmak, tezimin ana konularından bir tanesidir. Bugüne kadar bu alanda geliştirilmiş olan kuramları, epey tek yanlı ve süreci görmezden gelen kuramlar olarak görüyorum, projem dahilinde incelediğim iki kuram da bu çizgidedir: Davidson ve Armstrong. Tamamen dile önem veren tekil sistemli bir zihin felsefesi kavrayışı, tartışma dahilinde ciddi sorunlara yol açar ve yanlış-inanç kavrayışı gibi bir hayli ciddi bir yönü görmezden gelir. İnanç edinme sürecini biraz daha aydınlatmak adına, gelişim psikolojisi alanında yapılan çalışmalara değininiyorum. İnsan harici hayvanlar ile insan yavruları arasında yapılacak bir karşılaştırma projem için önemli olacaktır çünkü insan yavruları belli bir yaşa gelene kadar zihinsel yetenekleri hayvanlarınkiyle benzerlik gösterir. Gelişim psikolojisi çalışmaları, dilden daha önemli bir zihinsel kapasite olan yanlış-inanç kavrayışının altını çizer ve zihnin ikili sistemle kavranışını vurgular. Projemde bu yaklaşımı destekliyorum ve bu bulguları, Heidegger'in Dasein ve gündeliklik kavramlarından yararlanarak felsefi bir yaklaşım ile harmanlamaya çalışıyorum. Heidegger de ikili zihin sistemini tartışmam için bir yol açıyor, bu sistem, insanları diğer hayvanlardan ayıran karmaşık inanç mekanizmasını açıklar ki bu da yanlış-inanç kavrayışı geliştirmeye dair zihinsel kapasitedir.

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## TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION.....	1
CHAPTER 2: DAVIDSON AND ARMSTRONG, AND THEIR UNDERSTANDING OF BELIEF.....	3
2.1 Donald Davidson.....	3
2.2 David M. Armstrong.....	14
CHAPTER 3: RECENT EMPIRICAL APPROACH TO FALSE-BELIEF.....	29
3.1 The concept of falsity.....	29
3.2 Propositional attitudes without language: Non-human animals.....	31
3.3 How to evaluate non-linguistic living beings within the philosophy of mind.....	33
3.4 False belief understanding from the perspective of developmental psychology.....	36
3.5 Dual system theory of mind with sub-systems.....	42
3.6 Creating a comprehensive theory.....	53
CHAPTER 4: HEIDEGGER ON READY-TO-HAND, PRESENT-AT-HAND AND META-REPRESENTATIONS.....	55
4.1 The motivations behind the theories.....	55
4.2 Objects and our relations with them.....	59
4.3 Heideggerian phenomenology.....	61
4.4 Ready-to-hand vs. present-at-hand relations.....	64
4.5 Meta-representation.....	71
CHAPTER 5: CONCLUSION.....	78
REFERENCES.....	80

## CHAPTER 1

### INTRODUCTION

In this thesis, I will primarily discuss whether language is necessarily pre-conditioning belief. I will examine two controversial accounts by studying the best known defenders of priority-based theories of belief: Davidson and Armstrong. Throughout this investigation of these two positions, I will try to claim that the debate of the relation between language and belief cannot be reduced to the debate of priority. Thus, I will be critical of both of these aforementioned theories irrespective of their conclusions. However, I will argue that belief may exist without pre-conditioning language.

In the third chapter, I will refer to recent developmental psychology studies in order to identify a better basis for the discussion of belief. With the help of recent studies, I will investigate false-belief understanding which is a much more crucial mental capability in order to give a proper account of belief. These studies will also help me to shed light on how a dual system theory of mind would work, and why it is more preferable compared to the mono system ones. False-belief understanding will stand critical for my project and help me to position non-human animals versus humans in a proper way. In other words, it will allow me to investigate how process of acquiring believes work in human babies, and why it does not evolve in the same way in non-human animals.

After identifying false-belief understanding as the discriminative aspect of the discussion of belief, I will try to investigate what is required for it to develop. For this one, I will refer to Heidegger and his *Being and Time* in the fourth chapter. I will borrow his ideas on Dasein and fit in my project to discuss meta-representations as



the basis of false-belief understanding. I will also discuss how meta-representations differ from beliefs by referring to Heidegger's ready-to-hand and present-at-hand relations. This will also help me to give an account of dual system mind, operating in interaction with each other by referring to these relations.

All in all, I will position language as a complimentary capability to excel some certain complex beliefs, while I do not consider it as the discriminative capability for humans on the contrary to non-human animals. I will rather position false-belief understanding as the discriminative capability, which develops latest among other mental states in babies. So, I will address meta-representations as the basis for them to develop in reference to Heidegger's Dasein.

CHAPTER 2  
DAVIDSON AND ARMSTRONG,  
AND THEIR UNDERSTANDING OF BELIEF

2.1 Donald Davidson

Davidson is one of defenders of the idea that claims for the priority of language. In his entire project, Davidson argues for the impossibility of thought without language. His theory is a language bound one and non-applicable to non-linguistic creatures. And belief, language and thought are interlinked in an inextricable way in Davidson's theory. He follows a series of premises (number 1, 2 and 3) to conclude for the impossibility of thought without language (number 4). These are namely:

1. Network of beliefs is required for thoughts (propositional attitude).
2. Having the concept of belief (objective truth) is required for having beliefs.
3. Language is required for having the concept of belief.
4. Thoughts are impossible without language.

2.1.1 Premise one: Thoughts and belief

Davidson grounds his theory of beliefs on propositional attitudes in general. Thoughts are propositional attitudes to Davidson. And to possess propositional attitudes a web of other beliefs are required. "Before some object in, or aspect of, the world can become part of the subject matter of a belief (true or false) there must be endless true beliefs about the subject matter." (Davidson, 2001, p. 168)

Even though not all propositional attitudes are beliefs, beliefs form the basis of Davidson's theory in attributing propositional attitudes to someone. That is to say, to

attribute thoughts to someone we need to be able to attribute a web of other beliefs to that person. By this, Davidson aims to present propositional attitudes as complex states of minds. Propositional attitudes may not exist singly in a mind, they need a web of beliefs. For example “If you see a ketch sailing by and your companion says ‘look at this handsome yawl’” (Davidson, 2001, p.196)<sup>1</sup> you assume that your companion believes that the ketch is a yawl. And he holds his sentences to be true. So, you do not merely consider your friend as having a propositional attitude but rather you assume that this propositional attitude exists in a web of other beliefs in her/his mind. In this respect, thinking of thoughts independent of beliefs is not a good way of investigating Davidson’s account. Because, they are interlinked into each other.

#### 2.1.2 Premise two and three: The concept of belief, beliefs and language

"Knowledge of the propositional contents of our own mind is not possible without the other forms of knowledge since there is no propositional thought without communication."(Davidson, 2001, p. 213) The concept of belief can be acquired by *triangulation* in Davidson’s theory. Triangulation has three elements, which are namely: one mind (speaker), another mind (interpreter), and a shared world (external) to communicate on. One can have the idea that he/she is erring or doing right (the concept of belief) if and only if he/she communicates on his/her own beliefs about a shared world with someone else. This means, the only way to acquire the concept of belief is triangulation. By triangulating, subjects get to know whether their beliefs match with objective truth. They interchange their beliefs through triangulating, which is only possible through linguistic communication. Hence, we

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<sup>1</sup> This is called *principle of charity* as well.

can easily conclude that linguistic communication is required for propositional thoughts as well, since no propositional attitude is possible without the web of beliefs. In other words, what Davidson argues for beliefs in triangulation claim is also applicable to propositional attitudes/thoughts. It is what links the first angle to the other angle of triangle: speaker and the interpreter. This process is called *radical interpretation* by Davidson (2001):

Interpreter attributes both meanings to speaker's sentences and a web of beliefs at the same time. This interlinks the subjective (knowledge of our own minds) and inter-subjective (knowledge of other minds) knowledge. And this process of radical interpretation works within the principles of charity (correspondence) and rationality (coherence).<sup>2</sup> (p. 39)

So, to have a belief, to have the concept of belief and language are all interrelated to each other. To sum up the relation, as one of Davidson's very first premises, he argues that the concept of belief is needed to have beliefs themselves. And how the concept of belief can be acquired is addressed as radical interpretation by triangulation, interchanging beliefs through linguistic communication with other subjects. By this dependent nature of thoughts and beliefs; beliefs and language into each other, Davidson concludes that thoughts are also impossible without language.

Davidson argues that behavior that can be interpreted as speech is required for thought attribution, because belief discloses the way subject thinks through speech. That is to say, an interpreter cannot observe propositional attitudes of the speaker, but rather outward manifestations of them. It is parallel to Davidson's idea of triangulation, which is a radical interpretation, taking place among the aspects of triangle (speaker, interpreter, and a shared world) in the process of attributing meanings and beliefs.

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<sup>2</sup> This is another reason why mental is not reducible to physical that is held in the previous section. The so-called principle of charity and rationality govern only in mental states, but not in physical. So, if the same principles cannot govern in two different realms, then these two realms cannot be interrelated or reducible to each other.

"Unless there is behavior that can be interpreted as speech, the evidence will not be adequate to justify the fine distinctions we are used to making in the attribution of thoughts." (Davidson, 2001, p.164) Davidson's theory requires behavior that can be interpreted as speech to attribute propositional attitudes to the subject. In other words, his theory requires linguistic abilities for propositional attitudes to occur. Researches show that children develop propositional attitudes parallel to linguistic abilities around the age of 2. In detail, children develop the ability to *pretend* by the second year of human life. And by the age of three, concepts like *knowing/thinking* occur, then by the age of 4 a child develops *a concept of belief*. This might initially appear like sound, but to behave in a way that can be interpreted as speech, subject must be conscious of the belief that he/she holds. This idea is problematic itself, to me. I will be investigating it in more detail in below.

According to Davidson, to have a belief is to be aware that there can be some new or challenging data that is capable of revising the way I already believe; in other words, possibility to be surprised. This is what the concept of belief itself is. It is being aware of the possibility of being in error. In this respect, having a belief and having the concept of belief/objective truth are inextricable from each other.

By introducing the concept of belief as a precondition for having beliefs, Davidson implicitly argues for the consciousness of beliefs again, since to be aware that there can be new data that could transform what I already believe requires me to be conscious of that certain belief. In this respect, I disagree with Davidson. I can hold a belief unconsciously, and so I might not be aware of challenging data. For example, imagine a woman who has never thought explicitly on abortion before. And one day, she gets pregnant unintentionally, and considers having an abortion. Then, she concludes that she cannot have an abortion, since she finds it unfair for the baby.

In this case, she doesn't acquire a belief upon abortion immediately.<sup>3</sup> But rather, I claim that she just get conscious of her own belief. Armstrong calls this *introspection*, which he finds structurally similar to *scanning*. Subject is not conscious of all of her/his beliefs, but in the case of mind scanning, he/she gets conscious of his/her own beliefs. So, in Armstrong one of the main aspects of arguing against Davidson is his claim about conscious beliefs. This will be investigated in detail in the following section.

In my point of view, the most problematic arguments that Davidson introduces are the consciousness and language bondage of propositional attitudes. I will be arguing against these claims throughout my project, not specifically against Davidson but any theoretician who thinks in this way. To me, consciousness is not present parallel to holding the belief, but occurs when it is needed. As in the example of abortion, a woman was holding the belief that she is against abortion implicitly, but just gets conscious of her own belief, when the belief takes action in her life (deciding whether to end the pregnancy or not). The problem of beliefs and their consciousness will be investigated in chapter four in detail. But to make it clearer I am much more sympathetic with Armstrong than I am with Davidson on the discussion of consciousness.

According to Davidson verbal communication is a prerequisite for acquiring the concept of belief. He aims to bind all aspects of his theory to language, but this causes a discontinuity. Researches done in the field of developmental psychology is a good reference to shed light why Davidson's theory faces a discontinuity. Researches show that the idea of objective truth develops later than the linguistic abilities acquired. According to the findings of these researches, linguistic abilities in

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<sup>3</sup> This also might occur as a new belief, however for the sake of my theory I take it as an already existence belief of which subject was not conscious of yet.

babies start to develop from the age of 2, and only from the age of 4 infants do start to develop the concept of belief/the idea of objective truth. Davidson's account is inflexible to answer the period from the age of 2 till 4. However, Davidson claims that verbal communication would bring the idea of objective truth. Actually, he is serving communication as a prerequisite of acquiring the idea of objective truth. However, research show that verbal communication is not enough to develop the idea of objective truth as Davidson claims, but a higher degree-capacity is needed obviously. This will be investigated in detail in chapter four. For the totality of this chapter I will not go into the details of this research, and my own arguments why I find Davidson implausible in his second and third premises.

To have a brief understanding of what these researches look like, an experiment carried out by Perner, Leekam and Wimmer in 1987 among children of three years old would help. Children of three years of age are shown a confectionery packet, which normally used to be filled with smarties, and they are asked 'what is in the packet?'. They answered 'smarties' in the first place, and then are shown what is actually inside the packet: a pencil. The second question was 'what would your friends answer to the first question?', and the same children answered 'pencil', no matter what their first belief was. Their answer to the second question stems from the fact that they lack the concept of belief, objective truth in other words, which is only developed by the age of 4. So, the idea of objective truth is much more complex, so it develops later than other mental capabilities. It is also independent of linguistic capabilities contrary to what Davidson claims.

Results of the research may also cause a misunderstanding, which would seem to strengthen Davidson's claims. According to the results of this research children have an implicit understanding of false belief from the age of 2. In the first

glance, results of the researches may sound like parallel to Davidson's. But this is not actually the case. Davidson's idea of objective truth is not an implicit understanding of false belief, it is rather an explicit one. So, the details of this research do not overlap with what Davidson refers to as the idea of objective truth. When you focus on the results of these researches, they obviously make a distinction between the implicit understanding of false belief and the explicit understanding of it. The implicit understanding develops from the age of 2, which seems to echo Davidson; while the explicit understanding of it only develops from the age of 4. When investigated carefully, what Davidson means by 'the objective truth' is an explicit understanding of it, which requires a much more complex state of mind compared to the implicit understanding of it. I find the results of the research reliable, since acquiring the idea of objective truth is a much more complex ability, which cannot exist from the very beginning of mental activities, as Davidson claims in his theory, but can develop later on. In this respect, it is not proper to claim there is a link between beliefs and the idea of objective truth<sup>4</sup>. As I shall argue later, this is one of his weakest premises.

All in all, Davidson is not plausible when he claims a linguistic requirement for acquiring the concept of belief. As in the experiment, children are capable of linguistic abilities but are still unable to possess the idea of objective truth. It also forms a counter argument for his previous premise, which claims the link between the concept of belief and holding beliefs. Children at the age of three in the experiment were obviously able to possess beliefs, and attribute beliefs to other as well, but unable to possess the concept of belief, which requires meta-representation.

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<sup>4</sup> To reiterate, from now on I will be using the term 'the idea of objective truth' or 'the concept of belief' as a higher-order mental ability, which is an explicit understanding of false belief, and I will call it as *meta-representation*.



### 2.1.3 Sub-conclusion of premises one and two, and Davidson's intensionality

There are two important outcomes arising from the investigations made above in Davidson's theory. They are crucial if one is to present how and why his position manipulates the problem itself and ignores an alternative position that can be taken. The first one is the sub-conclusion of his first two premises. To reformulate the argument with its new sub-conclusion:

- A network of beliefs is required for thoughts (propositional attitude).
  - Having the concept of belief is required for having beliefs.
- ∴ Propositional attitudes are impossible without the concept of belief.

By this sub-conclusion, Davidson takes an extremist position and rejects not only belief possession but also any type of propositional attitudes without the concept of belief. For reasons similar to those that I have stated above for belief attribution, I disagree with this sub-conclusion of Davidson. According to the results of developmental psychology, infants start developing propositional attitudes from the end of their second year of their life, and the idea of objective truth is developed from the age of 4. So, Davidson's theory is unable to give a proper understanding of the development of mental abilities. His theory fails to give a clear understanding how and why propositional attitudes, and the concept of belief develop at different ages while they are necessarily bound to each other in his theory. For this reason, I will again stand closer to the findings of developmental psychology. I will investigate the findings of developmental psychology in detail in chapter three.

The second important reason why Davidson does not leave room for non-linguistic propositional attitudes is his *intensionality*. It is something different from intentionality. The intensionality of propositional attitudes can be investigated by using the example of 'Patrick believes that the Dean is wise'. This sentence may be

true but the other sentence ‘Patrick believes that Frank’s neighbor is wise’ may be false even if Frank’s neighbor is the same person as the Dean. According to Davidson, the truth-value of sentences may be influenced by the co-referring clauses, i.e. that clauses, and Davidson calls these intensional. In his theory, belief ascription must be intensional, which is *referentially opaque* in Quine’s terminology. Referentially opaque belief ascriptions refer to the ‘actual content’ of belief in the believer’s mind; while the other type of belief ascription that Quine introduces, *referentially transparent*, refers to belief without actually saying something about the content of it.

In other words, Davidson’s belief attribution is a type of *de dicto* belief attribution. *De dicto* belief attribution points to how the subject thinks. The other type of belief attribution is *de re* and it points what the subjects’ thought is ‘about’. In brief, *de dicto* means ‘concerning the thing said’, while *de re* means ‘concerning the thing’. That is why, while substitutivity works for *de re* beliefs, it may fail for *de dicto* beliefs. In addition, this distinction is not about the nature of the beliefs itself, but rather about the way the interpreter attributes beliefs to the subject. Since Davidson’s account of beliefs is bound to language and intensional, his account of belief attribution is more likely close to *de dicto* belief attribution. Armstrong will be attacking Davidson’s intensionality by arguing for *de re* beliefs, and I will discuss this in the following section on Armstrong.

I would distance myself from Davidson’s account of belief attribution, since this type of belief attribution is language bound, and so becomes inflexible to give an understanding of non-linguistic belief attributions. Quine’s distinction of *de re* and *de dicto* belief attribution is important and beneficial, especially in attributing beliefs to a subject whose mind’s actual content is unknown. In this respect, Davidson

seems to ignore an important portion of belief attribution. To me, it is not just a question of ignoring a certain way of belief attribution; it is an intentional attempt to sustain his understanding of belief, which is conscious and language-bound.

When we consider his first premise -claims language to be a necessary requirement in the development of network of beliefs- this claim is still sustainable for de re belief attribution. There can be a web of de re beliefs in non-linguistic minds, so I do not find his first premise plausible. In addition, there is research carried out in the field of developmental psychology whose results refute Davidson's second premise –the idea of objective truth is required for possession of beliefs. To reiterate, this research shows that the idea of objective truth is developed at a late stage in infants; while propositional attitudes develop years earlier before that. Parallel to this, his third premise claims for the requirement of language in developing the idea of objective truth; but again relies on the researches done we can obviously argue against this. Linguistic capabilities start to develop from the age of 2, while the idea of objective truth starts to develop from the age of 4. If Davidson was right in his third premise, there would not be a gap of two years in between developing linguistic capacities and developing the idea of objective truth. It is almost obvious that, language alone is not sufficient for the idea of objective truth to develop. I claim that additional capacities are required for acquiring the concept of belief. For this reason, this third premise is not wrong but deficient.

In the light of the aforementioned points, the most problematic premise is the second one for me. At first glance, his theory may sound plausible when one considers human adults, but he is unable to give a proper account of the process of belief acquisition, since it is not the case that human infants start to possess propositional attitudes and the idea of objective truth in a sudden jump. They develop

them over a period of time. Even though if it is reported by research that linguistic capabilities and propositional attitude possession starts around the same age (2), it is also stated that it is not the case that there is a logical link among them. On the other hand, the possession of the idea of objective truth is much more crucial than Davidson appears to think it is. One of the strongest arguments that Davidson makes is concerning the idea of objective truth. Contrary to many theoreticians, Davidson gives great importance to the concept of objective truth. However, he is mistaken in considering the ability to perceive objective truth to be an ability that develops with the help of language. Contrary to what Davidson claims, the idea of objective truth develops a certain number of years after linguistic abilities develop. This means acquiring the idea of objective truth requires a much more complex state of mind and it is irrespective of developing linguistic abilities: I discuss this further in chapters three and four. For me, language<sup>5</sup> is simply an ability that develops parallel to acquiring propositional attitudes, and is not a major actor. The most important actor in the theory of mind is the idea of false belief/objective truth.

## 2.2 David M. Armstrong

Philosophers such as Davidson, see an essential link between belief and the verbal expression of the belief. And Armstrong argues against this link in between belief and its linguistic expression and his theory, rather than discussing the question of `thoughts` in general, he argues with reference to `belief` specifically. He takes the

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<sup>5</sup> By language, I do not mean the imitation of sounds. For example, a person may easily memorize a passage in another language, let's say Swedish, and not be knowledgeable about the meaning of it, or even know Swedish itself. I would not consider this as a linguistic capability. Similar to this, a parrot may easily memorize some words. But this wouldn't be a linguistic capability for me as well. Another example would be infants, their linguistic capabilities start to emerge by imitation. In the first place, they imitate their parents' sounds, and then learn their meaning from the context. It is just imitation of sounds, and nothing else that an unintentional Swedish speaker, memorizing parrot, or imitating human baby experiences. As I have stated, research done in the field of developmental psychology concludes that babies develop linguistic abilities from the age of 2. So, this is not a mere imitation but a knowledgeable using of language, since the ability to imitate emerges earlier.

distinction between thoughts and belief for granted. But to make it clearer, Hume's question can also shed light on this distinction, 'What marks off believing something from merely entertaining that thought?'. Armstrong's *belief* understanding is Ramseyian. He likens belief to a *map by which we steer*.<sup>6</sup> This, in the very basic sense, is inspired from Wittgenstein's comparison of sentences to pictures. Contrary to the account considering them as merely entertained propositions, beliefs are action-guiding, to Armstrong. To investigate more on the nature of belief, he presents three commonly-argued positions. They are namely;

1. Beliefs as conscious occurrences
2. Beliefs as dispositions of the believer
3. Beliefs as states of the believer's mind

Armstrong becomes critical of defenders of (1) and (2), and argues for (3). Now, we can investigate them one by one and see how he evaluates these positions and places himself accordingly.

#### 2.2.1 Beliefs as conscious occurrences

Parallel to Hume's account of belief, defenders of this position argue that 'if A believes B, then A is having a conscious idea of B'. Hume argues that to have a belief is to have a *vivid or lively idea* accompanied with a present impression.

However, Armstrong becomes critical of this view, due to its obstructing the nature of unconscious or sleeping beliefs. For example, Armstrong claims an agent goes on to hold the belief 'the world is round' when she is asleep, it is not the case that due to sleeping she stops holding that certain belief. In this respect, he disagrees with Hume and all other positions that equate belief to the current content of believer's

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<sup>6</sup> I agree with Armstrong on his presentation of beliefs. They are not just possessed by mind, they are made use of by mind as maps that we use to direct our actions accordingly.

consciousness. Armstrong considers defenders of this view to be unsound in their account of unconscious beliefs.

The problem of consciousness is one aspect where Armstrong's theory differs from Davidson's. Davidson's triangulation and the way he suggests that objective truth is acquired are bound to the fact that beliefs are conscious. So, even if Davidson does not explicitly argue for the consciousness of beliefs, we can implicitly derive this from his arguments. In the process of acquiring the concept objective truth, triangulation has to take place, and there is no way that an agent can speak about her beliefs without being conscious of them. That is to say, Davidson's account of belief argues that they are conscious occurrences.

I am more sympathetic to Armstrong's position on unconsciousness of beliefs than I am with Davidson's consciousness of beliefs. "If A believes B, then A is conscious that she is holding belief B" is an extreme claim which is hard to defend regarding the arguments stated above. To recapitulate briefly, I argue for beliefs of which the holder is not conscious unless they are not called by a certain occasion, as in the example of abortion. However, I will rather discuss *meta-representation* and pre-reflective awareness of them rather than consciousness as one of my main focuses in my thesis; a discussion of meta-representation will follow in chapters three and four.

### 2.2.2 Beliefs as dispositions

Defenders of a disposition concept of belief make an analogy between disposition of an object and its manifestation, and between belief and its verbal expressions. To have a broad understanding of this theory, Armstrong refers to Ryle. According to this position, dispositions of objects are likened/compared to beliefs. Dispositions are

considered as properties of physical objects, just as glass' brittleness is its disposition, and the case of getting broken is the manifestation of the disposition. However, disposition of a thing still does not guarantee its manifestation. A glass may not break but still be brittle. This view considers beliefs as dispositions, and their verbal expressions as their manifestations. Parallel to the case of object dispositions, belief dispositions do not require the manifestation/verbal expression of them. Armstrong reports that this account provides the opportunity to attribute belief to an unconscious/asleep mind contrary to the first account (beliefs as conscious occurrences). Beliefs stand to their verbal expressions/manifestation, as dispositions stand to their manifestation according to this view. However, this is still not the best account of beliefs according to Armstrong. He thinks there are some certain differences between dispositions and beliefs, which will be investigated in the following part. I doubt in some of his distinctions between qualities of dispositions and of beliefs, and I will state the reasons for this below.

#### 2.2.2.1 Differences between dispositions and beliefs

He gives mainly three arguments to explain why beliefs are not dispositions. To specify, the first two of these distinctions are not applicable to general beliefs.

A disposition requires an initiating cause to manifest, while a belief does not. As in the example of glass, it should get struck in one way or the other in order to break. To be clearer, referring to Chomsky's stimulus-independent nature of speech act is helpful. When a speaker produces some grammatical sentences and sounds, we can point to no external stimulus that could cause this situation; the only cause is the speakers' inner interests and aims. On the other hand, dispositions are stimulus dependent.

Some may come with the idea that we may have a belief unconsciously and this may not come to light without a stimulus taking place. For example they may cite the case of someone with fear of flight despite the fact they have not been in a plane before: this belief may not manifest itself before I take a flight. As in this example, there are many people who argue against a stimulus-independent belief possession. However, this is not a stimulus, as disposition states hold according to Armstrong. Disposition states' stimuli are mandatorily included in the definition of those dispositions, from their very nature. But in the case of beliefs, there is no specific stimulus that could be the only way of giving an understanding of the nature of belief itself. To specify, disposition of brittleness of glass is itself defined in a way requiring the getting struck: `breaks in case of getting struck` etc., while we cannot give such a definition for the fear of flight example.

I find Armstrong's claim sound. it may sound as if I argue for stimulus dependent beliefs due to my example of abortion, however it is not the case. As Armstrong claims, there is no specific stimulus that is mandatorily included in the definition of belief, as they are in dispositions. For example, there is no possibility for the brittleness of glass to manifest in a stimulus-independent way, since it requires getting struck as a stimulus. In the case of fear of flying, we cannot point out a stimulus for it to manifest. I will not consider this claim in detail as it is not crucial to my project.

To go on, Armstrong claims dispositions may manifest themselves in only one way, while beliefs may be manifested in several ways. Ryle also distinguishes between single-track and many-track dispositions. This differentiation is helpful to shed light on what Armstrong means by manifesting in one way or many. The single-track dispositions of Ryle can again be exemplified by the example of glass. The



disposition of brittleness manifest in only one way; it just breaks. There is no other possibility for brittleness to manifest itself in an object, so it is a single-track disposition to Ryle. On the other hand, "Lucas believes that earth is flat" might be manifested in thousands of ways. We cannot limit, or imagine a single way that Lucas manifests this belief. In this respect, this could be labeled as many-track, or even infinite-track disposition according to Ryle. Armstrong does not stop and goes on to make a claim about the reference point of manifestations. When you have the idea of disposition-itself, then you easily know what the manifestation will be like. In addition, someone can know only about manifestation irrespective of knowing about its disposition. However, we cannot claim the same for beliefs. Manifestation of a belief cannot be understood without referring to the belief itself. So, irrespective of whether it is many-track or infinite-track; belief itself is the only reference to have a clear understanding of it.

I find the many-track and single track distinction between dispositions and beliefs of Armstrong to be sound. It is also plausible to claim beliefs to be self-referential whilst the manifestation of dispositions may be known without having any clue about the disposition itself.

In addition, beliefs have a *certain internal structure*; which is composed of elements in relation to each other. There is a state with a specific structure that corresponds to the belief itself. Let's assume three different beliefs: (i) Lucas is a man, (ii) Lucas is teaching philosophy, (iii) Lucas is in his office. Armstrong asks (1973): "Must we not take it that these states have an internal structure such that to common elements in the things believed correspond common elements in the state which is the belief?" (p. 18) He claims 'we must'. Otherwise, different verbal expressions corresponding to the beliefs with different elements would not be

possible, according to Armstrong. He admits that a brittle object is in a state that is liable to break in the case of being struck, because its molecules are bound together in a certain way and this could be considered as a structure. But in the case of belief, to Armstrong, states have their own internal structure; and in this respect it is a step further from dispositions having a structure; and this is the difference of degree.

I agree with Armstrong that beliefs have a certain structure, but I hesitate to make a differentiation of 'in-degree', since there are many recent studies especially by atomists arguing for the internal structure of dispositions. Since this claim is not critical for my project, I will not go into the details here.

### 2.2.3 Beliefs as states

Even if the second position (disposition like beliefs) is much more convincing than the first (beliefs are conscious occurrences), both of them are insufficient to give a proper account of belief, to Armstrong. The third position that Armstrong introduces considers beliefs as states, and is more satisfactory in comparison to the first two positions to Armstrong. This view claims 'believing A means believer's being in a *continuing state*'. According to this view, holding a belief for mind is to be *stamped* or *imprinted* in a certain way. To have a broader understanding, Plato's *Theaetetus* would help. Plato claims an image is an imprint that is made by a seal on a block of wax. As imprint endures on the wax continuously, beliefs endure on the mind continuously as well.

To Armstrong, a believer does not have to be conscious of his/her being in a certain continuing state. As explicated above, Armstrong obviously argues against theories claiming that beliefs must be conscious. For the totality of his project,

unconscious beliefs are crucial, since this is one of the aspects which allow him to attribute beliefs to non-human animals.

Since being in a certain state is a property-attribution to an object, it is important to focus on the nature of this so-called property. The two basic qualities are being *non-relational* and *accidental and changeable*:

They are non-relational properties of objects. What is it to be a non-relational property of something? For example, a glass is always brittle regardless of its getting struck or not, but brittleness to manifest itself, glass needs to get struck. So, brittleness (disposition) is the non-relational property of the glass, and getting struck (initiating cause) is the relational property of it.

They are accidental and changeable. The object always possesses features, but it is a fact that these features may get lost or be exposed to variation. That's why they are accidental and changeable.

To sum up, Armstrong claims:

1. Not all states are dispositions, but dispositions are a class of states.
2. General beliefs are the only sort, which can be classified as dispositions.
3. It is true that there are some confusing similarities among disposition-states and belief-states, but they are still different in some certain ways as claimed in the previous section.

Overall investigation, I stand close to Armstrong in his account of continuous and unconscious belief states.

#### 2.2.4 Belief and consciousness

As it is claimed briefly above, consciousness is an important aspect that distinguishes Armstrong's theory from Davidson's. He rejects the view that considers beliefs as

currently conscious states of mind, but it is not the case that a belief cannot be conscious. It does rather mean a belief can be in our mind, but it does not have to be *luminous*.

"Many of the beliefs, which guide our actions never enter consciousness while the action is being performed, yet the belief must be causally active at that time." (Armstrong, 1973, p. 21) In this respect, consciousness mostly comes in the case of failure due to holding a false belief. Since beliefs are maps by which we steer, and act upon, they determine the failure or success of our actions. And mostly in the case of failure that beliefs come to consciousness. In order to give a broader understanding of coming to consciousness in the case of failure, he suggests an analogy between beliefs and perception. As we are surrounded by numerous visual objects in the environment, there is no way for us to perceive them all. So, perception is what we have through world-scanning. Similarly, we have numerous mental states and only some of them are introspected and entered into the field of consciousness. So, actions that fail due to a false belief get introspected by the subject, and Armstrong considers this as the most common way of becoming conscious of our mental states.

I totally agree with Armstrong's use of both unconscious beliefs and his introspection analogy. Beliefs are mostly brought to light by mind in the case of failure. I call this *illumination*. When it is the case that the subject fails, the belief he/she acts upon comes to light so mind introspects itself by considering each step. This process somehow works like an illumination. This debate will be at the core of my project, and will be discussed in detail in the last chapter. For now, I will not go deeply into the topic, which I will investigate further.

### 2.2.5 Belief and language

The term ‘expression’ is more specific and valid for the case of beliefs as explicated above rather than manifestation. So investigating the nature of the expressions of them is crucial in this sense. We may have two possible ways of expressing them, claims Armstrong. These are, namely: linguistic expressions of beliefs, and non-linguistic expressions of beliefs. The linguistic one is verbally saying, while the non-linguistic is mere doing. Many people think that, verbal expressions are logically primary manifestations of beliefs. For example, breaking when struck is the logically primary case/manifestation of the disposition, brittleness. However, there may be some extra conditions: for example the glass may be well-packed and so it may not break even if it is struck. This would be a logically secondary case/manifestation of brittleness. However, this cannot be the case for beliefs, for Armstrong, since this is an argument parallel to the defenders of the view that beliefs are disposition-like states. In general, he argues against any type of logical or conceptual connection between beliefs and their verbal expressions. By this claim, Armstrong provides ground for belief attribution to non-linguistic creatures.

This is another core point that will be argued in the body of my project. And I totally agree with Armstrong. There is no necessary and logical link in between language and beliefs. They may develop in parallel, but it is never the case that language is a pre-requisite for beliefs. Thus, this will be investigated in detail in following chapter.

#### 2.2.5.1 Belief without language

Investigating non-human animals is a crucial aspect of Armstrong’s theory, because they might be good examples of being belief without language. So, take the example

of a dog that digs a certain point in the backyard. It would be natural for us to attribute a certain belief to the dog relying on its actions; such as 'it believes that its bone is buried there'. Even if this attempt would count as natural, the question whether the dog has concepts like 'bone', 'burying' etc. arises inevitably. According to Armstrong, rather than the dog's having concepts, it is our attempt to attribute beliefs to them that deserves investigation. In other words, it can only be our attempt to declare about dog's belief. So, we would never be sure what a dog believes, we only can attribute him 'belief' in general.

Armstrong refers to Quine's distinction between referentially opaque and referentially transparent in order to make his point clearer. To Quine, referentially opaque and transparent are the possible ways of talking about beliefs. The former is more fundamental compared to the other, and it refers to the 'actual content' of belief in the believer's mind; while the latter refers to belief without actually saying something about the content of it, and this is the only possible way that we refer to non-human animals' belief. Then, it would be inappropriate to claim that the actual content of the dog's belief is 'its bone is buried there'. This claim relies on the observations of dog's behavior and derives belief attribution from this. So, referentially transparent way of talking provides us the ground to talk about beliefs that we do not know the actual content of. In the case of dogs, we could still rely on *salva-veritate* as an alternative, but in daily life this would save us from falling into dilemma. "This simply shows that we need not give up our natural inclination to attribute beliefs to animals just because the descriptions we give of the beliefs almost certainly do not fit the beliefs' actual content." (Armstrong, 1973, p. 27)

In addition, it is obvious that animals perceive, and that there is a link in between perception and acquiring knowledge about environment to Armstrong. The

process starts with the sense organs perceiving the environment and then this goes on the acquisition of knowledge; and so, according to Armstrong, to the acquisition of beliefs. Since the dog perceives, then it acquires knowledge; since it acquires knowledge, then it acquires beliefs. By claiming this, Armstrong again rejects the logical link between beliefs and their verbal expressions. Belief occurs necessarily in the presence of perception.

By claiming so, Armstrong thus aims to destroy the link between language and beliefs, and rather suggests a necessary link of mental actions: perception → knowledge → belief. This is how Armstrong aims to overcome the impossibility of beliefs in non-linguistic creatures. I strongly agree with his attempt to destroy the link between language and beliefs, and the mental actions link that he suggests seems plausible and proper to me. However, I will pursue another argument to argue against the link between language and beliefs based on the question of false-beliefs. This will be investigated in detail in chapter three.

To continue, Armstrong refers to supporters of the destruction of this link to some degree. That is to say, they do not agree with the idea of beliefs without language. They still make a claim for the existence of a link between language and beliefs, beliefs that possess this link are logically primary cases, to these theoreticians. Moreover the absence of this link can only be considered as its a logically secondary case of it. So, linguistic expressions of beliefs are their logically primary cases, while non-linguistic ones are considered as logically secondary. This is what Armstrong tries to argue against. I strongly disagree with the idea that there can be logical degrees on beliefs.

"If the dog believes, then what makes his belief a belief is something which pertains to dog, and has nothing to do with human beings and their speech."

(Armstrong, 1973, p. 28) The distinction between logically primary and secondary cases can be explained by the example of brittleness. Brittleness as a disposition requires its manifestation to take place if certain conditions are met. Otherwise, the concept of brittleness would turn out to be vague and imaginary. So, to have brittleness, glasses need to shatter in case of being hit: and this is the logically primary case of brittleness. But if we did have glasses that do not shatter in the case of being hit, then this would be a secondary case of brittleness. If beliefs and their verbal expressions, and dispositions and their manifestations have a similar relation over to one another; then this would give priority to verbal expressions. However, Armstrong, in the previous section, refutes this analogy between dispositions and beliefs. Thus, there cannot be any logical connection between beliefs and their linguistic expressions.

I strongly agree with Armstrong when he claims logically secondary cases cannot be used as a way to disprove the link between language and beliefs, since they can rather be said to put a strain on this link. In addition, there can never be a priority among beliefs bound to their verbal expressions. I will argue for an in degree difference among beliefs, irrespective of their verbal expression. This will be considered in detail in chapter four.

In addition, Armstrong argues that in order to claim that non-human animals have secondary cases of beliefs, animals need to be situated in a borderline where the term 'belief' is applicable and where not. Defenders of secondary cases of beliefs, mostly try to base their arguments on the so-called scale of complexity and sophistication:

Amoebae → earthworms → ants → lizards → dogs → apes → men



They claim that mammals stand nearer to amoebae compared to where men stand. In this scale, beliefs are definitely absent in amoebae; while present in men. Beliefs get dimmer the further you get away from men.

This scale, to me, doesn't give a proper account of to what degree beliefs get dimmer, and so become secondary cases. I agree with Armstrong when he claims that if and only if there was an exact point on the scale where animals stand, it would be relatively sound to make a case for secondary cases of beliefs. However, this debate is beyond the scope of my project.

However, Armstrong does not ignore the fact that there is a relatively crucial difference between non-human animals and humans. This is the absence of linguistic capabilities in non-human animals. To reiterate, admitting the difference, which relies on the absence or presence of language, does not mean that he agrees with the claim that non-linguistic beliefs are secondary cases. Armstrong claims, even if beliefs that non-linguistic creatures possess were secondary, this wouldn't be due to their lack of language.

#### 2.2.5.2 Sophisticated belief and language

While aiming for a theory that leaves room for belief without language, Armstrong investigates positions that might possibly refute his claims. One of them, he says would be the defenders of the view that even if animals have beliefs; these are simple and unsophisticated in some sense. Defenders of this view rely on the existence sophisticated beliefs such as abstracts. To give a clear account, the question 'can there be beliefs that are only possible to possess by linguistic expressions and nothing else' is crucial. Armstrong replies this: there are inevitably some beliefs that can only be expressed by linguistic elements; but he adds they are just a minor group

among all the beliefs. In addition, Armstrong claims someone may hold a sophisticated belief and still be unable to express it. This would only prove there is a link between beliefs and their linguistic expressions in some loose sense, but this is never, in his view, a logical one.

In addition some beliefs may require a web of other beliefs (or set of beliefs) such as Goldbach's conjecture. To have a belief concerning Goldbach's conjecture someone needs to hold some other beliefs such as mathematical concepts. Such complex and sophisticated sets of beliefs, and their expression are in mutual causal interaction: they develop in parallel. This sounds a bit like Davidson in the sense that he also considers web of beliefs required for holding beliefs. However, Armstrong's view is a bit different from what Davidson claims, because Davidson considers this as a prerequisite for all types of beliefs; while Armstrong admits this could be the case for sophisticated ones.

Armstrong pays little attention to the exceptional cases of beliefs (i.e. sophisticated beliefs) in his entire discussion, which leads me to treat it with some skepticism. Even though I feel more sympathetic towards Armstrong's theory than Davidson's, he fails to convince since he emphasizes exceptional cases of belief which don't require language, and because of the fact that his ultimate project was to leave room for belief attribution to non-human animals, and yet at the end he privileged status of human belief. He fails to prove how his exceptional beliefs are different from what Davidson argues in his entire project, since Armstrong's exceptional beliefs require a web of other beliefs such as Davidson argues for as well.

Although I agree non-human animals may have beliefs, I also argue for the fact that there is a significant difference between some human beliefs and those of

non-human animals'. However, I wouldn't argue for a difference in degree as, Armstrong does, but rather for a type of mental ability, such as non-human animals are deprived of. This is the ability to have false-belief understanding and this ability is what distinguishes some human beliefs' from non-human animals' beliefs. To clarify, it is not all human beliefs that are developed by this ability, they also have to be conscious as different from other type of beliefs. I will develop this idea further in the last chapter.

## CHAPTER 3

### RECENT EMPIRICAL APPROACH TO FALSE-BELIEF

#### 3.1 The concept of falsity

Although concept of *truth* is considered to be one of the most important aspects in philosophy, the concept of *falsity* is considered as secondary -as merely derived from truth. That is to say, falsity as a concept is presented as a case of non-truth. However, I do not agree with this account of falsity. Most of the ancients including Plato in his *Sophist*, present falsity as much more problematic and paid more attention on discussing it. I like to follow the ancients in this respect. For me, falsity is complex concept worthy of more discussion than it is usually given especially in the field of philosophy of mind, where it plays a crucial role.

Inan refers to the ‘redundancy theory of truth’ in his article, which claims if we remove the term ‘truth’ from language we would not lose of any meanings, as, there is nothing we cannot say without the term ‘truth’. E.g. ‘the earth is round’ and ‘it is true that the earth is round’ are the same. But in the case of falsity, things are different. If we remove the term ‘false’ from the language we would obviously be lacking some meanings according to this theory. E.g. ‘earth is flat’ and ‘it is false that earth is flat’ are different in meaning. In this respect, he claims that falsity is a much more crucial concept than truth in terms of meaning. To be clear, this theory does not claim that we should remove the concept of truth from language, but rather try to point out how crucial the concept of falsity is.

I agree with Inan’s attempt to make the falsity the focus of debate in philosophy of mind. As discussed in the previous chapter, Armstrong doesn’t pay attention on to concept, whilst Davidson does (i.e. idea of objective truth) but

misplaces it in the body of his theory. To me, falsity has a crucial role as a concept, especially for philosophy of mind. Therefore, I find it valuable to investigate *false belief understanding* in detail in order to have a more holistic understanding of belief. Due to Davidson's and Armstrong's theories' minimal or complete lack of attention to false belief, their theories are unable to reply to certain questions regarding the process of developing beliefs.

Davidson attaches one of his premises to the idea of objective belief, but he links this with all propositional attitudes. According to Davidson's theory, to have any type of thought, the subject needs to possess the idea of objective truth. However, this cannot be the case since the concept of false belief is a much more complex mental state to link to basic propositional attitudes. I disagree with his claim for the link between basic propositional attitudes and the concept of false belief, since according to Davidson, language is prerequisite to the possession of beliefs. He argues only for linguistic beliefs, and fails to pay attention to process. For Davidson the acquisition of beliefs comes as a sudden jump. However, as the findings of developmental psychology show, beliefs are actually acquired by degrees. According to the results of these experiments, propositional attitudes start developing from the age of two, and the concept of false belief only develops from the age of 4. This is a counter argument to Davidson's linking of propositional attitudes to the concept of false belief, which is investigated in the previous chapter. To reiterate, he makes a staggered link between them by firstly requiring a network of beliefs for propositional attitudes, then the concept of belief for beliefs, and then language for concept of belief.

On the other hand, Armstrong does not even argue on falsity or false belief. Even though I would locate myself closer to Armstrong than to Davidson due to his

commitment to the possibility of unconscious and language-independent beliefs, in general I do not find his theory convincing, since a proper account of philosophy of mind would take false belief at its center. To focus on the concept of false belief, it is crucial to investigate living beings in totality. For example, to consider how the process goes on in humans from the phase in which they are not even capable of making meaningful sounds in childhood to that of possessing complex mental states in adulthood. To investigate it, I argue for a resemblance between non-human animals and humans: that the very first year in the life of human infants have strong resemblances to the entire life of non-human animals in terms of parallel mental capabilities. In other words, what non-human animals experience throughout their life is strongly parallel as that human babies experience in their first years of life. So, it would be helpful to double check the process in human babies and compare it to non-human animals to point out what is missing that prevents them from shifting into a more complex mental life.

### 3.2 Propositional attitudes without language: Non-human animals

I do not intend to give a full-blown behaviorist account, but to consider research done, reports written and obvious facts that we can easily observe in our daily lives. Take the example of Kanzi, which is a special educated bonobo. Primatologist Sue Savage-Rumbaugh worked with him and reports to that he is able to understand certain commands and take action on them. These are: “take the water”, “take the salt”, “put salt into water”, and “put water into salt”. So, he can distinguish salt and water, and perform more complex acts like putting one into another in a certain order. In such a case, how we would consider Kanzi’s ability to perform complex acts and understand complex entails a crucial issue. If we link mental

activities/propositional attitudes to language, then we need to ignore the fact that Kanzi is able to perform some primitive mental activities such as distinction and learning. If we do build all the story upon language, we need to do this, since he has no linguistic capacities, and he will not in the future. If you choose to put a straw-man argument against Kanzi, you would probably say it is just an example of simple conditioning but nothing else. But it is not so. It is a way of learning, and acting upon.

From an alternative perspective Kanzi's ability to understand commands might be considered as a type of linguistic capability. Even if it was true, it is still not equal to what Davidson refers to by 'language' within his theory. Triangulation plays a crucial role which is the only way to acquire the concept of belief, and to triangulate, both sides should be communicating with each other in one way or the other. In this respect, what Davidson calls 'language' is a much more complex and comprehensive ability, so Kanzi's set of skills cannot be considered as language within Davidson's framework. However, in Kanzi's case it is somehow a one-sided communication in so far that he receives and understands the commands but cannot increase his understanding of them through words, which prevents him from acquiring the concept of belief if we accept Davidson's arguments. For this reason, Kanzi constitutes a counter example to Davidson's chain of conditions necessary for the possession of propositional attitudes.

The other example is that of vervet monkeys and how they act. One of the vervet monkeys in the herd looks at from the top of a tree for any dangerous attack that can come from wild birds, and if it comes, yells to warn the others to hide. Or one of them watches out for any dangerous attack that may come from wild animals on the ground and warns the others to climb a tree. There is obviously a certain type

of thought and communication of these thoughts in them. Again if you choose to put forward a straw-man argument, you would probably say this is just an example of natural instinct and nothing else. This would be a cheap way of considering the issue, since the one up the tree acts upon its belief that “there is something dangerous coming from the sky”, while the one on the ground acts upon its belief that "there is something dangerous coming" and so they yell to warn others about the upcoming danger. These vervet monkeys have no linguistic capability, and yet are still able to develop propositional attitudes which they act upon.

Then, let’s think about your pet dog. He barks when you are at the door, in a way he doesn’t for others. In that case, wouldn’t you say ‘he knows that I am in front of the door’? Or when he digs at a certain point to find the bone he just buried, wouldn’t you say ‘He thinks his bone is buried there’? I will not try to take a position on whether non-human animals have a special language or concepts. This would be a totally different project. I am rather interested in what we, as adults, share mentally with non-human animals and human infants. This is crucial for my project to show how this process evolves within each of them and what distinguishes humans from non-human animals, since I will tend to claim non-human animals and human babies share some certain mental capacities while human babies develop in a more complex level after a while.

### 3.3 How to evaluate non-linguistic living beings within the philosophy of mind

As I have stated in previous sections, developmental psychology research helps us with understanding how the process works in human babies. It has been reported that babies start developing propositional attitudes from the age of 2, and only from the age of 4 do they start to develop the concept of belief. In this respect, I find it more



crucial to discuss the possession of the concept of belief and its development, since it seems clear that it requires a much more complex state of mind than merely linguistic abilities. Otherwise, it probably would not take two years for the concept of belief to develop in human babies.

To determine the common points between the first years of life in human babies and the whole lives of non-human animals, I want to focus more on the first years of human babies' lives. Human beings' first year of life is a pre-linguistic phase, and it is almost entirely similar to what non-human animals experience throughout their entire lives. However, what makes them similar to each other is not being non-linguistic, it is rather the mental capacities and the perception of the world which is shared. A baby smiles in response to a voice which is familiar to her, and reacts neutrally or negatively to a voice she is not familiar with. In such a case, we may obviously say that 'baby can recognize a familiar voice, while he/she can't do it for an unfamiliar one': this is similar to what we can say for Kanzi or vervet monkeys.

As stated above, my project tries to show how it is inappropriate and inadequate to adopt a position like a 'priority' theory in the discussion of thought. I aim to shed light on an alternative way of handling this issue, by avoiding being 'cheap' if I may say so, by making language do all the work. To me, language cannot be the only factor involved in the account. It is obvious that there seems to be something in common between non-human animals and babies in their first years of life. The point is to try to give a proper answer to 'what we have extra in human babies that allows them to go into another phase of life which is different from non-human animals'. To reiterate, language cannot be the only answer, if it was so we would be able to give a proper account with Davidson's or Armstrong's theories.

Due to their internal (premise based) and general inadequacy which is already discussed in the previous chapter, priority or language based theories seek for an alternative. An alternative is required to the priority, or language based theories, the inadequacy of which have been discussed previously. I want to be clear however that my aim is not to discuss whether we can attribute propositional attitudes to non-linguistic creatures or destroy language's importance.

In developmental psychology researches, we can obviously detect the parallel development of linguistic capacities and propositional attitudes. At first glance, we may dare to claim that language and mental capacities develop together, so language is the answer we are looking for. However, if we focus more on the findings of this research we will see something distinctive in between the ages of 2 and 4. I think this is where we need to pay more attention. If the key answer was 'language', then why does the concept of objective truth or idea of 'false belief' comes from the age of 4? This means we need to look for an answer other than language here.

In this research, the concept of false belief is what is missing in babies till the age of 4; and only after developing the concept of false belief, are they able to have more complexity in their mental activities. False belief is a complex concept, which takes babies two years to develop after acquiring linguistic abilities (linguistic capacities emerge from the age of 2, idea of false belief from the age of 4). As I have suggested before, this period from the age of 2 to 4 deserves a focused investigation in order to give a proper account of what prevents non-human animals shifting over phases as human babies do.

### 3.4 False belief understanding from the perspective of developmental psychology

After presenting two inadequate accounts in the philosophy of mind, and trying to demonstrate their falsity, I will now pass to another discipline: developmental psychology. `False belief understanding` is not only discussed by philosophers, it is also investigated by developmental psychologists, from a different point of view. Among propositional attitudes, false belief understanding is the one that develops the latest. I assume that is why it attracts a lot of attention from several disciplines. As I try to give a broader understanding of philosophy of mind, understanding false belief acquisition in a developmental manner is crucial. In this respect, appealing to developmental psychology to shed more light on the process of concept of false belief acquisition will help me to introduce what I basically aim for in my project.

Experimenters in the field of developmental psychology perform several tests for false belief understanding. Until recent years, there was only one test used by experimenters, which was called a *false belief test*. Then, some experimenters began to question the results of this traditional method. For them it was not flexible enough to measure children's false belief understanding and there was no alternative solution to come up with comparative results. It was a brief and a sketchy method, which they recognized after they explored the new method, and this feature was resulting in missed details regarding children's development of false belief. That's why some experimenters attempted to design a much more flexible method of false belief test to give more proper results on children's false belief understanding. The newly designed test was called as *spontaneous-response false belief test* and the traditional one started to be named as *elicited-response false belief test*. (Their names suggest their methodology) I will be investigating the details of these two types of false belief tests, aiming to point out why Davidson misplaces false belief

understanding or the idea of objective truth in his theory and how it is possible to create a better approach.

#### 3.4.1 Elicited-response false belief tests vs. spontaneous-response false belief tests

The emergence of spontaneous-response false belief tests and how they differentiate from the traditional FBTs, which were used previously, plays a crucial role for my project, largely because they resemble my thesis in opposition to the claims of Davidson and Armstrong. In other words, as already mentioned I accuse Davidson and Armstrong of ignoring the process by which propositional attitudes are acquired, and merely considering them as if they arise at some given point of time. With the help of these FBTs and the way in which its findings are evolved over time will be more than sufficient to show what our point of disagreements are. For this reason, I will be paying attention to the details of the findings of these FBTs and their interpretations. For me, Davidson specifically seems to follow the findings of elicited-response FBTs, I will try to address how Davidson is mistaken by referring to the problems of elicited-response FBTs and how spontaneous-response FBTs are able to overcome them.

The traditional design of the tests were standard, and the results were almost the same for each case: it was reported that infants develop false belief understanding, and so they are able to pass the false belief test (FBT) around their fourth year of life. These FBTs were called *elicited-response FBTs (after the design of spontaneous false belief test)*. However, recent studies carried out using the newly designed spontaneous-response FBTs show that children may develop an understanding of false belief at an earlier age.

The classical versions of most common elicited-response false belief tasks are the *location change task* (Wimmer & Perner, 1983; Baron-Cohen, Leslie & Frith, 1985), the *unexpected content task* (Hogrefe, Wimmer & Perner, 1986; Perner, Leekam & Wimmer, 1987; Gopnik & Astington, 1988), the *hide and retrieve task* (Fodor 1992; Bloom & German 2000), and the *unexpected-identity task* (Moses & Flavell, 1990; Gopnik & Astington). In one of the most known task, the location change task, children observe a scene in which a puppet puts a specific toy in a box, and then leaves. During the puppet's absence, another agent comes and moves the toy to some other place. Let's say, he takes the toy from the box and moves it into a basket. When the puppet returns, the child is asked 'Where will the puppet look for the toy?' and is expected to give an answer. Children under the age of 4 were more likely to fail in the task. They tended to reply: 'The puppet will look for the toy in the basket', which is inconsistent with the puppet's supposed belief, since the puppet was absent when the agent moved the toy from box to basket.

The results were similar in the various versions of the false belief tests. The children were asked to predict verbally the puppet's or subject's action at the end of all versions of the tasks, and children under the age of 4 fail. This failure does not seem to stem from the having greater linguistic complexity, experiments showed, since there were no differences in the results of the task when children were asked 'What will the puppet say or what will it think or what will it know about the location of the object?'<sup>7</sup> It is rather about children's being unable to consider another's mental point of view, which means children are unable to develop meta-representations with regard to other's thoughts. As a result, they fail to predict others' actions based on their thoughts.

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<sup>7</sup> Researches show that children develop understanding of 'desire, think, know' in different ages.

Since I consider holding beliefs as being similar to holding a map by which the subject steers, it is important to report that false belief understanding tests should focus more on childrens' expecting a meaningful action regarding a subject's belief, rather than mere belief attribution. According to the results of elicited-response FBTs, children were unable to make explicit statements about their false belief attribution to subjects. On the other hand, spontaneous-response FBT aims to eliminate the aspect of children learning to make their explicit statements about their belief attributions. In this way, these tests aim to have a proper understanding of false belief attribution, is freed of the extra burden of making explicit statements. Thus they eliminate objections regarding linguistic complexity.

As I have stated, it was not satisfactory to consider children under the age of 4 as unsuccessful in terms of understanding false belief. So, the new trend started to judge elicited-response FBTs as overly demanding on the cognitive abilities of children, especially in terms of expecting a verbal statement of the childrens' own judgment. For this reason, the new version of false belief tests aimed to reduce demands on the children's cognitive capabilities, and started to carry out experiments on infants under the age of 4 to see whether they would succeed or not under these conditions. In the newly designed *spontaneous-response FBT*, as opposed to the other versions of FBTs, children were not supposed to make an explicit/verbal statement regarding the agent's belief. It was rather the experimenter who infers the spontaneous behaviors of children in the face of the agent's action regarding her/his belief. Different tasks such as *gaze-monitoring*, *violation of expectation* etc. were used within the framework of these tests. According to the results of these tests in a radically contradictory way to the findings of elicited-response FBTs, children may

have an implicit understanding of another's mental point of view/belief before the age of 4.

One of the best known experiments (Onishi & Baillargeon, 2005) conducted a (classical three-way association: agent-object-location) violation of expectation task on 15 month-old infants with the aim to test whether children are looking considerably longer when an agent acts inconsistently with its false belief. A child is shown a scene in which an agent hides a toy in location A, and leaves. During the agent's absence someone else changes the location of the toy from A to B while the children witness it. Then one of two possible scenarios is shown: in one of them agent searches for the toy in location A, and in the other, agent looks for the toy in location B in an inconsistent way with his/her perceived reality (as he/she saw it for the last time in location A). It is reported that children look considerably longer when the agent searches for the toy in location B. That is to say, children look longer, not when the agent searches for the toy where he/she last left it, but when the agent searches for it in its new place where he/she didn't witness the toy being placed. Therefore, the duration of the look of children is correlated with the consistency of agents' beliefs and actions toward them.

Since the results of spontaneous-response FBTs struggle with the results of elicited-response FBTs, it is an important question whether we should rely on such implicit signs as time spent looking etc., since elicited-response FBTs claim that the understanding of false-belief develops from the age of 4, and children before that age fail the tests, while spontaneous-response FBT results` claim that the understanding of false belief develops implicitly earlier than the age of 4.

### 3.4.2 Interpretations of the experiments within the theory of mind

The issue is important because a very early onset of false belief understanding (during the first year or second year) suggests that ToM (theory of mind) development is largely driven by biological inheritance, whereas a much later onset at 4 years makes it more plausible that ToM development is influenced by cultural processes and closely tied to language acquisition. (De Bruin, 2012, p.241)

The debate whether false belief understanding is an issue of biological inheritance or language acquisition, as stated by De Bruin, is critical for the totality of the theory of mind and also for my project. If it were a question of language acquisition, then the mental capabilities would be bound to language, which I deny. Therefore, it is crucial for me to investigate in detail why such a conflict among results of different types of FBTs occurs. If children under the age of 4 are able to possess an understanding of false belief, why do they fail in elicited-response FBTs is another important question. This is called the *developmental paradox* of false belief understanding, and it is also a critical question for my project since I wish to stress the importance of the process of acquisition of understanding of false belief, which I believe will shed light on many issues.

Different theories have been suggested to explain the paradox in the development of false belief understanding, one is that there are two sub-systems of psychological reasoning, two different and separate systems, and the other is an association account again positing a dual systems but with an interaction between them. I will investigate these accounts one by one, and try to comment on them in order to develop my own understanding. They all have a common point that suggests a dual system, either with independent sub-systems or associating ones. What they have in common is their agreement on a dual system rather than a mono system. I agree with all these theories' starting point, since a mono system would not be able to give a full understanding of the philosophy of mind. To go back to what we have



discussed in the previous chapter, this is what Davidson and Armstrong and all who suggest a priority based mono system understanding of philosophy of mind lack in their theories. Defending a mono system theory gives us a discontinuous account with a major gap. To get a continuous understanding of philosophy of mind, theories should also consider deriving systems and the way they work. Below, we will see several examples of dual system approaches, and try to navigate through the most continuous one by evaluating each of them.

### 3.5 Dual-system theory of mind with sub-systems

The first account is that of Baillargeon & Scott & Zijing (2010), which I will be arguing against. According to their view, the developmental paradox may be overcome by pointing out the psychological reasoning system of children, which has two sub-systems. These two sub-systems are responsible for different abilities in children and are developed at different ages as well. The sub-system one develops from the end of the first year of life and is responsible for attributing *motivational* and *reality-congruent states*. Motivational states can be inferred as goal-directed actions of the agent regarding the scene displayed as in the experiment of puppet and the toy. On the other hand, reality-congruent states are knowledge that the subject possesses about the scene. It is not the case that this sub-system only deals with reality-congruent information, but also reality-incongruent information depending on the subject's knowledge or ignorance of the scene. For example, the subject may possess reality-incongruent information and so false beliefs as in the case of puppet. This sub-system develops from the second year of life according to Baillargeon.

With this approach, the developmental paradox can be explained by the different processes used in the spontaneous-response and elicited-response FBTs.

This view argues that there are three processes working during false belief attribution. These are namely: *false belief representation*, *response selection* and *response inhibition* processes. In brief, false belief representation is developing an understanding of the mental state of the agent, and response selection is picking a response consistent with the false belief representation when asked, lastly response inhibition is not relying on their own knowledge but rather the agent's. Baillargeon argues that spontaneous-response FBT involves and derives only one process and it is the false belief representation, on the other hand elicited-response FBT involves response selection and response inhibition processes in addition to the false belief representation process. For example, children under the age of 4 in the puppet experiment reply on not relying on the puppet's knowledge but rather theirs and so fail. This is because they are unable to carry out the process of response inhibition and response selection. They succeed in elicited-response FBT only after the age of 4, from which time all three processes are operational.

This account is problematic to me, since it tries to overcome the developmental paradox it actually fails to do so. Contrary to what this view argues for, I would rather claim that spontaneous-response FBTs also need to have a response selection and inhibition system. For me, the difference is not whether all of the three processes are operational or not, it is rather whether the child is asked to make an explicit statement or not. In other words, operational processes are not discriminative, because in both spontaneous-response FBTs and elicited-response FBTs, three of these processes need to be operational. For example, when a 3 year-old child has an elicited-response FBT, he/she again operates response inhibition and response selection while the process of false belief representation is operational. This is how false belief representation is successful itself. All three processes must be

operational for the experimenter to conclude that the child understands false belief, for this reason trying to differentiate among two types of FBTs is not an efficient approach. What differs is not which processes are operational, but rather whether statements are made explicit or not. Even though this approach argues for a dual system (it is still vague whether these two systems interact with each other or not, and this is important for my argument), I find its attempt to overcome developmental paradox weak.

### 3.5.1 Dual and separate systems theory of mind

The other dual-system theory suggested is that of Apperly and Butterfill (2009); they argue for two different systems to track beliefs. They claim that the results of spontaneous-response and elicited-response FBTsa can only be explained in terms of both a minimal ToM and a full-blown ToM. The minimal ToM is cognitively efficient but inflexible (shared by human infants, adults and non-human animals), while the full-blown ToM is flexible but cognitively demanding/inefficient (only present in adults). In this respect, the minimal ToM is much more associated with children's successful performance in spontaneous-response FBT and so children re considered as having an understanding of *belief-like states*. Belief-like states only allow children to understand an agent's behavior in a goal-directed manner without attributing any mental state to her/him. On the other hand, a full-blown ToM is responsible for *genuine-belief* tracking to agents and it provides the required sensitivity to agents' propositional attitude. The full-blown ToM is possible only in children who are successful in the elicited-response FBTs. According to Apperly and Butterfill, this two-system ToM enables us to interpret both spontaneous-response and elicited-response FBTs without hesitating as to how it is possible to have an

understanding of false belief and fail in the FBT (elicited-response) at the same time. Apperly & Butterfill's early developing ToM that tracks belief-like states is responsible for eye-movements and some other spontaneous behaviors, and the later developing system that tracks genuine beliefs deals with for explicit statements regarding an agent's false belief. They also argue against any type of interaction between these two systems, claiming that these two systems are different and independent of each other.

Though I do agree with a dual system ToM, I do not agree with an independent one. In general, I agree with Apperly & Butterfill's conceptualization of belief-like states and genuine-beliefs. I will be making a similar distinction among relations we form with our environment in the next chapter where I shall attempt to explicate my own theory. I shall argue for a dual system consisting of a belief-like state which is cognitively efficient but not a genuine belief and a more flexible but inefficient genuine belief-state.

### 3.5.2 Gradual false belief understanding acquisition

Marco Fenici investigates the debate from another useful angle. According to Fenici, the concept acquisition in children is not something 'emerging', it rather happens gradually. Understanding of folk psychology, to him, requires the gradual competence of concept/belief tracking. In this respect, he puts an understanding of theory of mind based on folk psychology.

Children do not generally acquire concepts at once, but they gradually master them as they acquire various abilities connected to the concepts themselves. Thus the empirical results that indicate the implicit understanding of others' beliefs may demonstrate only a preliminary, partial possession of the concept of belief, a concept that must be present in a more mature form in order to pass explicit false belief tests. I will argue that the final step in the acquisition of this concept requires children to understand how beliefs and desires are used in everyday explanations of people's actions. Thus, I will suggest, it is

the lack of competence in folk psychological explanation that prevents children from passing FBT. (Fenici, 2011, p.199)

Possession of belief attribution in children requires not only making predictions others' beliefs, but giving an explanation of them as well. Since explanation-giving is linked to full understanding of mental state verbs related to their role in folk psychology, they cannot pass elicited-response FBT before possessing this. This is why, according to Fenici children fail in elicited-response FBT before the age of 4. They do not have a proper understanding of folk psychology as an explanatory the background of others' beliefs irrespective of action's being successful or not. To be clearer, this is not a plain linguistic capacity that Fenici points out, it is rather an understanding of background as an explanatory source. Children tend to rely more on the agent's desire and so on rather than on their false beliefs with regard to unexpected content task. So, this means children fail to give a proper explanation of each others' actions until they pass the elicited-response FBT. In this respect, passing an elicited-response FBT is not solely about attributing beliefs, but rather about attributing beliefs with a reliable explanation for them (folk psychology). Theories claiming children start to possess the concept of belief from the age of 2, merely consider belief in a minimal sense. Children at the age of 2 are still unable to understand the rationale of the failure of others action, which requires a more complex task, it only develops from the age of 4 parallel to success on elicited-response FBT.

I find Fenici's suggestion extremely plausible, since holding an atomistic understanding of philosophy of mind would entail being ignorant of some certain facts. Mental states are not developed independent of folk psychology or the culture in which the child grows up. Isolating or decontextualizing minds from environmental aspects such as culture and folk psychology would cause us to ignore

some important aspects of the debate, which I will be investigating in the following chapter. We need a holistic understanding which considers each and every effective aspect. That is why folk psychology as Fenici claims, of great significance. In this respect, I agree with Fenici's attempt to apply folk psychology as an efficient aspect of development of any type of mental states. A holistic theory should cover any related and efficient aspect in the development of mental activities. It also allows us to avoid any gap within the theory by arguing for gradual development of a full-blown belief attribution.

At first glance, Fenici and Apperly & Butterfill appear to give similar accounts. The full-blown ToM that Apperly & Butterfill claim, may be grounded on folk psychology as Fenici claims. Fenici refers to what Apperly & Butterfill call 'minimal' and 'full-blown' as 'minimalist' and 'maximalist' theories. Even if Fenici and Butterfill & Apperly sound as if they make parallel claims, Fenici does not answer the question of how these two systems may interact with each other, while Apperly & Butterfill rejects the interaction between the two systems in the development of a full understanding of false belief in children.

I do not agree with the independence of two systems. To have a broad understanding of theory of mind, as I have stated, we need to have dual systems in interaction. Claiming their independence from each other would cause a discontinuity in the theory, in other words a gap in between two systems, which makes it impossible to explain how these two systems are developed if they are not gradually developed by interacting. For this reason, I will argue for a dual system, which has interaction between its two sub-systems. As an isolated or decontextualized theory would be ignorant, an independent dual system would be discontinuous. I would never agree with any type of isolation neither on the theory

phase nor on the interaction phase. So, how a dual system could offer interaction among systems is an important question to be answered for my project.

### 3.5.3 Dual system with interaction theory of mind

Referring to De Bruin would help to shed light on how these two systems of ToM interact with each other. According to De Bruin, arguing against the interaction between two systems would mean that till the age of 4 the later-developing system stands inactive, while the early-developing system works fully. (He refers to Apperly & Butterfill) However, this cannot be the case to him, due to obvious continuation in the development of false belief understanding. Arguing against interaction between the two systems would cause a gap in false belief understanding. And an unexplainable gap, which stems from the independence of systems, would be inappropriate for a theory. That's why he claims the later-developing system must be associated in some way with the early-developing system.

All in all, De Bruin disagrees with Baillargeon et al. in their distribution of duty among processes. Because all of these processes: representation, selection, inhibition, are already successful in spontaneous-response FBT. Otherwise, there wouldn't be any success at all in the test. On the other hand, he doesn't agree with Apperly & Butterfill either, due to lack of interaction between the two systems. But, he finds it more plausible to adopt a dual system ToM that has interaction in between, rather than two-separate-subsystem ToM. In this respect, he stands closer to Apperly & Butterfill than Baillargeon et al. He suggests two modules for his two systems ToM: an *association module* and an *operating module*. These two systems

are considered to enable children to *register*<sup>8</sup> incremental complex statements regarding others' actions and propositional attitudes.

In detail, the association module allows children to form associations between other agents and objects in the external world from the beginning of their age one. The associations they form among objects and agents are called *registrations*. These registrations allow children to attribute goal-directed behaviors to agents, rather than just accidental ones. Besides those claiming that ability to register associations develop before the age of one, Woodward claims this requires a more complex understanding in his article in *Developmental Science*. Because registering associations about agent's belief/action just by regarding her/his visual perception constitutes difficulties not only due to spatial discreteness of object and agent, but also due to gazing's being inconclusive as to agent. Children cannot observe their own gazing, and since they understand others' actions by understanding their own actions the like-me hypothesis, which is basically understanding others' actions based on the way they act on the very same situation, registration of associations requires a much more complex mental capacity and so it is impossible before the age of one. The like-me hypothesis doesn't work only one way; both children's understanding of their own and other's goal-directed (intentional) actions provides a better understanding of each other in children.<sup>9</sup>

Even though the theories that are investigated account on how children register associations to others', they don't explain how the process works in the other direction. That is to say, children may register associations of others' actions and beliefs by regarding their own and the other way as well, but this still doesn't explicate how children register any association of others which is inconsistent with

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<sup>8</sup> This will be used as a term in remainder of the paper.

<sup>9</sup> This is something different from mirroring (imitating) that is found in early infancy as well. It is not just a motor-imitating.



their own. This is a debate for the totality of philosophy of mind. As I have already adverted in the previous chapter, falsity is a much more complex and fundamental aspect of all of philosophy of mind and especially for the discussion of false belief understanding.

This crucial need to explain how children register associations of others that are inconsistent with theirs is satisfied by the other module, operating one, in De Bruin's ToM. As we cited above, the like-me hypothesis and motor-imitating in children requires a further mechanism which will prevent them from imitating themselves and others in an endless repetition. This is provided by an *inhibitory mechanism* and served by an *operating module*. The operating system enables children not to fall into repetition in situations that they got familiarized with, understanding the external reality regarding their new perceptual information, and representing this perceptual information in a proper way.

To go back to the association module, it provides a double way registration based on *what the other does* and *what the other sees*. Other does based registrations allow children to consider an agent's behavior toward the object, (*motor-based associations*) while what other sees allows them to consider an agent's visual perspective (*perception-based associations*). In this respect, the operating module is critical because it allows children to register perception-based associations which are inconsistent with their owns. To reiterate, De Bruin stands close to Fenici in terms of not ignoring the importance of background knowledge of social rules, conventions: so folk psychology.

The pre-linguistic period, to De Bruin, is a period in which children develop a proximal understanding of goal-directed behaviors of others with the help of motor-based and perception-based associations. This forms a ground for mastering a

much more complex understanding of others' goal-directed behaviors when they pass to the linguistic period. Even if there are many theoreticians arguing for the great correlation of linguistic abilities and success in elicited-response FBTs, this cannot be the whole story, De Bruin claims. According to De Bruin, the elicited-response FBT is distinguished from spontaneous-response FBT in terms of requiring the capacity of meta-representation. "That is, the infant not only needs to be able to represent *what* another agent represents (the 'content'), but also *how* she represents it (the 'propositional attitude')." (De Bruin, 2012, p.252) The absence of the ability of meta-representation then causes children to fail elicited-response FBT, rather than their linguistic inabilities before the age of 4.

In sum, children register incremental complex tasks by means of interaction between association module and operating module. This is how different degrees of complexity in children's belief attribution are satisfied. And also how children's failure in elicited-response FBT turns into success at the age of 4. They firstly develop the understanding of goal-directed behaviors and then the false-belief reasoned failure in behavior, thanks to the interaction between the two modules. The interaction provides mutual benefits for the two modules. The association module masters by interacting with the operating module.

All in all, I agree with De Bruin and Woodward's accounts, arguing for the complexity requirement of registrations. Infants till the age of 1 just learn about their own capabilities, and explore the environment. They do not develop any mental state directed towards others' actions or beliefs. De Bruin presents the most plausible account of theory of mind among the aforementioned three, to me. He argues for a dual system, which has interaction among each other. In addition, he makes a distinction among his modules as goal-directed and meta-representation, in terms of

their function. (motor-based and perception-based associations) This is what I will be arguing for in the following chapter. I will be offering a dual system philosophy of mind with an ongoing interaction and these two systems will be responsible for equipmental (some type of goal-directed) and meta-representational states. I also agree with De Bruin's claim that the association module masters by interacting with the operating module. I will be suggesting a similar account of interaction as well.

De Bruin makes an implicit reference to Quine's distinction of *de re* and *de dicto* beliefs, or referentially transparent and referentially opaque beliefs. This is another point in De Bruin's theory that I find very strong. As I have stated in the previous chapter the distinction between *de re* and *de dicto* belief attribution is crucial for the philosophy of mind. De Bruin explicates the difference between the results of spontaneous-response FBTs and elicited-response FBTs with the help of meta-representation. According to him, subject needs to know what agent's representation is *about* regarding the scene to succeed in the spontaneous-response FBT, however, this is not enough to succeed in the elicited-response FBT. The subject needs to know *how* the agent represents the scene as well. To reiterate, *de re* belief attribution was concerning what the agent's thought is about, while *de dicto* belief attribution was concerning how the agent thinks. In this respect, what De Bruin loads to motor-based and perception-based representations are contextually parallel to what Quine loads to *de re* and *de dicto* beliefs respectively. Even though he doesn't make an explicit reference, I find these two very parallel and supportive for each other.

### 3.6 Creating a comprehensive theory

In sum, the results of the experiments done in the field show that infants are able to register and track the mental states of others from the age of 2, and this includes false belief attribution. However, this is just an implicit false belief attribution. For this reason, they are unable to have an understanding of the future action of the agent, which is inconsistent with his/her belief. And they cannot manage to have a proper understanding of this till their age of 4. So, before the age of 4 they cannot make explicit (not only linguistic) statements about other agents' actions, which stems from their deprivation of meta-representation capacity. They need to have meta-representations over agents' belief and perception in order to have a consistent or inconsistent understanding of their actions. That's why children become successful in the elicited-response FBTs only from the age of 4, while they become successful in the spontaneous-response FBTs from the age of 2.

As discussed before, the success in the spontaneous-response FBTs is parallel to the development of linguistic capabilities. However, this is just accidental and so there is no logical connection in between these two. It is not to say that, language is never influential on the development of false belief understanding, but rather false belief understanding develops irrespective of language but excels incrementally with the help of it. In addition, folk psychology is an important aspect to be discussed throughout philosophy of mind. While discussing an issue, decontextualizing it from its environment would cause a person to be ignorant of some other influential aspects, and so formulae the problem in a wrong or deficient way. In this respect, I agree with Fenici and Apperly & Butterfill's implicit reference to folk psychology. To give an understanding of others' actions and mental states, children need to be aware of folk psychology to evaluate them in a proper frame.

Just as it is impossible to understand a single word by taking it from a whole sentence, it is also non sense to try to understand or evaluate all of philosophy of mind by decontextualizing it from folk psychology. Folk psychology and philosophy of mind must be considered hand in hand to form a proper theory. For this reason, it would be a blind theory if we evaluate children under the age of 4 as having no false belief understanding. The thing is that children under the age of 4 are not capable of developing a meaningful link among behaviors and minds. This requires a much more complex set of mind, while mere false belief understanding may be developed way before it, and this is how children from age 2 to 4 succeed in elicited response FBTs, but not spontaneous response FBTs. In this respect, I would obviously go for a dual system theory of mind as De Bruin suggested, which has interaction among each other. They master themselves by interacting. To be continuous is another important aspect of a theory. That is why interaction is crucial. Otherwise, a dual system theory of mind would be incapable of explaining how this process evolves and required developments are achieved.

For these reasons, in the next chapter I will argue for a dual and interactive systems theory, by referring to Heidegger in order to develop my own account. De Bruin and Fenici's theories are surprisingly parallel and helpful to understand how Heidegger's *Being and Time* can be implemented to deal with the discussion of belief.

CHAPTER 4  
HEIDEGGER ON READY-TO-HAND, PRESENT-AT-HAND  
AND META-REPRESENTATIONS

4.1 The motivations behind the theories

An important portion of the theories has been founded on the motivations on which they depend. In my opinion, investigating the motivations behind these theories would tell us a lot about them. In general, throughout the thesis we have investigated two different theories of the very same issue. We faced different premises, and hence conclusions. Davidson and Armstrong are two of the most known defenders of two opposite priority-based belief accounts. To get a broader understanding of these two opposite views, I find it helpful to investigate their main motivations.

Soll (2011) would be a helpful reference for my investigation of motivations. He discusses the basic motivations of theories of human nature. He claims that there are two opposite motivations for taking the issue under investigation: the ones attempting to protect the superior status of human beings, and the others attempting to shake the status of human beings. Almost all accounts ground their theories on language and its role within the natural order. In this respect, Soll points out the main axioms of theories regarding the aforementioned aspects. In order to implement the results of Soll's claims to what I have investigated in the body of my project, I will review Davidson's and Armstrong's accounts.

Davidson mainly motivates his theory from the attempt to differentiate human beings radically from the rest of living creatures regarding their mental capabilities. So he loads the whole credit to the so-called very unique capability of human beings: language. He follows an account of belief which totally relies on

linguistic abilities and hence consciousness of them. Davidson aims to locate human beings in a superior position in the natural order due to human beings' capacity for linguistic performance. So, this is why he binds his theory of belief to language and leaves no room for non-linguistic belief or even propositional attitude possession.

Armstrong, on the other hand, motivates his theory by the attempt to fill the gap between non-linguistic creatures (pre-linguistic babies, non-human animals etc.) and linguistic creatures (adult human beings). Loading a crucial role on language, theories like Davidson's causes a gap between non-linguistic creatures and linguistic ones. In addition, the most critical gap that these theories create is between pre-linguistic and linguistic human beings. In other words, they ignore the process and consider it as a jump from pre-linguistic to linguistic period. That is why shaking the status of language, as Armstrong attempts to do, seems to be the other way of solving the issue.

Motivation behind theories is important to explore for my project, because I accuse them -aforementioned positions- of being ignorant of certain facts and of handling the problem of language and thought from a manipulative point of view. What makes them ignorant and one-sided is their motivation. In other words, they differ in terms of their attempt to break the unwavering status of human beings on top of natural order or not. When it is a case of searching for a definition of a human being or giving it some differentiating qualities from the rest of nature, the debate comes inevitably to linguistic capacities. This forms an advantageous position for the scholars defending the idea that language is prior to thought like Davidson. On the other hand, behavioristic positions ground themselves on observations of non-human animals and pre-linguistic babies.

To reiterate, the aim of my project is to argue for the possibility of preserving the favored position of human beings in nature, at the same time leaving room for the possibility of having other effective factors that are unique to them besides from language. I claim that the factor is the capacity to develop false-belief understanding, and that prevents non-human animals from stepping to another phase as human babies do. However, the debate over language and thought is presented as a debate of priority and theories on the issue are grounded on one or the other (language priority or thought priority). As I have explicated above, these types of theories consider language as the only deterministic aspect and motivate themselves on shaking its status or preserving it. I will try to point out how these attitudes manipulate the debate. Because they consider the phase of transmission as a jump (from pre-linguistic to linguistic). However, it is not. Human babies step from pre-linguistic phase to linguistic phase from the age of 2. But as an important aspect of complex thought, they still lack the concept of objective truth till the age of 4. This period of human babies' lives, which is ignored by priority-based theoreticians, needs extra investigation to have a proper account in the discussion as I have tried to do in the previous chapter.

I have tried to point out how non-process based theories ignore the transmission between phases and so have an unexplainable gap within their arguments. This has also a lot to do with the motivation they are based on. For me, both Davidson and Armstrong follow an extremist motivation in theories that are bound to language. For this reason, I try to address an alternative way of considering this problem, both process-based, and reliant on a non-extremist motivation. Now, I will introduce the motivation behind my arguments: meta-representation. This capability will help me understand how the process of acquiring mental capabilities



develop in human babies, how this process differs from non-human animals` in developing false belief understanding, and it will also give me the opportunity to avoid being extremist like Davidson and Armstrong.

Within the following section of this chapter, I will be referring to Heidegger. Even though I have not introduced his position I still find it quite helpful to investigate his motivation. Because I will be suggesting a closer position to Heidegger`s as alternative and most likely preferable to Davidson`s and Armstrong`s, which will hopefully comply with the theories of developmental psychology. I find where Heidegger stands quite similar to where I try to locate myself within the discussion of philosophy of mind. Especially in the early Heidegger period, he tries to figure out how Dasein is surrounded with its everydayness rather than answering more complex questions. I consider early Heidegger as being critical to those who try to give ontological analysis of more sophisticated concepts -if I may say- like numbers, abstract entities etc. before clearly understanding our own everydayness. To him, discussion of such so called sophisticated concepts is a theoretical one, which can only be understood through having a theoretical attitude. But as Dasein`s, he claims, we are far from being theoretical in our everydayness. According to him, we rather stand absorbed within our daily activities. That is why discussing the existence of a Pegasus is a less crucial problem compared to Dasein`s everydayness, which is totally not a theoretical discussion. I find the motivation behind his theory very substantial, and close to where I get my motivation. I read Heidegger as trying to solve the problem of everydayness of Dasein with a more commonsensical attitude, which is perfectly strong in my point of view.

## 4.2 Objects and our relations with them

It is almost obvious that an object is experienced differently even among human individuals, and so it is plausible to expect a difference among non-human animals' and humans' experiences upon the very same object. For example, which aspects of a tree are taken into consideration by adult humans? The fruits that it bears, its fructifying season, color of its flowers etc.? These and many others like these. There is a common trait of these aspects, as you may recognize. We define a tree by the concepts/aspects that we make use of as tools or benefit from in our daily life.

However, do we take the scent of the tree into consideration? We do, but not in a way that non-human animals, especially dogs and cats, do. The scent of a tree is only taken into consideration when it gives a bad or good impression in terms of odor. But non-human animals are using this element in making territories, which is neglected by humans. They urinate at the bottom of the tree, and in this way they mark their own territory. If another dog or cat comes and smells the odor of another dog or cat at the bottom of the tree, they know that this area belongs to some other animal.

We attach certain concepts to our environment in which we form a relationship toward objects as their being means for our ends—made use of by us. This forms our everydayness. In this respect the relationships we form with our environment/objects are much more action/survival/usage based. This is why dogs and cats consider the scent of the tree, but not the fruits it bears, and vice versa. Because, it does not form a quality to be made use of for them, while it is so for humans. Dogs form a relationship with a tree in that they make usage of it, and this relationship contains no subject-object relationship, which will constitute a hot topic for the rest of my project. The ongoing relationship is an instrumental one. That is to say, they do not treat objects as independent of them, but as a tool which is related to

themselves regarding its usage. I will be calling these *agent-relevant*. It is the same case for humans and their relation to a tree. Since objects may serve several different usages, the concepts/relations attached to them differ regarding the relationship between the object and the user. In this respect, regarding the user, objects do not possess only one kind of relationship and concept attachment but many. The absence of a subject-object relationship in an instrumental type of relations is important due to the relation's very nature.

I might refer back to Ryle's many-track and single-track dispositions<sup>10</sup> in order to clarify my position. In doing this, I will decontextualize the terms he uses, and I will apply these to concepts and relations formed with beings' environment. As I have explicated above, we cannot give a single definition of an object, because it would ignore many other possibilities that the object may possess. That is why I do not feel comfortable with fundamentalist accounts of concepts. Since there are numerous different subjects, even upon the same object there can be numerous different relations to form. In this ontological analysis of environment/objects I stand against the classical atomist attitude and rather follow a Heideggerian path.

The classical philosophical approach has a tendency to consider substances and properties separately while giving an ontological analysis of the world. For example, the laptop that I write my thesis with is a substance, and has properties like being grey, solid and rectangular. According to the classical philosophical view, to give an ontological analysis of this laptop I isolate it from the environment where it

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<sup>10</sup> To reiterate, single-track dispositions of Ryle can be exemplified by the example of glass. Disposition of brittleness manifest[s] in only one way, it just breaks. There is no other possibility for brittleness to manifest in an object, so it is a single-track disposition to Ryle. On the other hand, "Lucas believes that earth is flat" might be manifested in thousands of ways. We cannot limit, or imagine a single way that Lucas manifests this belief. In this respect, this could be labeled as many-track, or even infinite-track disposition according to Ryle.

usually exists and investigate it separately. Giving an account of the world/object by isolating it from the objects it is in relation with is a kind of atomism actually.

According to Heidegger, this atomist classical approach may still be true but not the best because he thinks this type of an ontological analysis is quite misleading and conceals a better way to do an ontological analysis. So, Heidegger suggests a much deeper way of giving ontological analyses of the world. For example, the laptop is a tool for me to write my thesis rather than being a sole substance which has properties. He doesn't follow the premises to derive his conclusion in a classical way, but rather performs phenomenology, which is based on considering tools in equipment-wholes rather than stand-alone substances. I will try to follow Heidegger while giving an understanding of philosophy of mind. For this reason I find it valuable to focus a little more on his ontological understanding of the world.

#### 4.3 Heideggerian phenomenology

Heidegger's phenomenology relies on equipment-wholes. If I investigate how I experience objects in my daily life I will find out that these objects appear<sup>11</sup> to us as tools that can be made use of. To analyze the objects in our environment as tools, we cannot isolate them from what surrounds them and consider them as atoms. So, the objects are always in an equipment-whole. Let's go back to the example of my laptop, I write my thesis on philosophy of mind, and refer to Heidegger's *Being and Time*, for it is not only a laptop that I need, but also I need a copy of *Being and Time*, a pencil to take notes, a bit of light to read the text and so on and so forth. This practical activity of writing my thesis will always appear to me with reference of the copy of the text I read, the pencil I write with, and the light that I am able to see with.

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<sup>11</sup> The term *appear* is important because Heidegger performs phenomenology by it. By so, he tries to analyze how objects appear us in daily life. By using this term, he tries to carve under the term *appearance* and *reality* that is used in traditional philosophy.

So, the laptop that I use while writing my thesis refers to my pencil, the text, and the light. Heidegger claims that the practical relation that I form with the laptop is always meaningful within the equipment-whole.

By claiming this, Heidegger argues against the classical way of doing ontological analyses. Because, if we consider objects as atoms and analyze them accordingly, then we would miss the references/equipment-wholes they are only meaningful in. The equipment-whole and the references between the tools are one type of *reference* in Heidegger's theory; the other one is called goal-directed practices references<sup>12</sup>. According to Heidegger, we always use tools that we find in our environment for certain goals. Our practical activities become meaningful in a certain way because the tools in these activities are used for a specific goal. For example, when I write a thesis, my laptop appears<sup>13</sup> to me as a tool that can be used to achieve a goal. And these tools and the goal they are serving for is another type of reference to Heidegger, since my laptop appears as a tool to me for achieving my goal. Let's say my goal is getting a good grade. But Heidegger claims these goals form a series; he doesn't explicitly use this term but I use this to make his point clearer. So, I use my laptop to write my thesis aiming to get a good grade, but getting a good grade itself aims at something else. I want to get a good grade because I want to graduate with a higher GPA; I want to have a higher GPA because I want to get accepted to a good PhD program, and I want to get accepted to a good PhD program because I want to be a professional in philosophy. According to Heidegger, these series of goals always end with an ultimate purpose, which he calls *for the sake of*

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<sup>12</sup> The concept of 'goal-directed practices' is borrowed from Dreyfus' Heidegger reading.

<sup>13</sup> The concept of appearance is crucial in Heidegger, because he uses it in a different way than classical philosophers do. In classical philosophy, the difference between appearance and reality is important. That is why it is important to stress the difference with how Heidegger uses it. According to Heidegger, there cannot be a difference between how my laptop appears to me during my meaningful activity and how it is in reality. They are the very same in Heidegger's ontological understanding of the world.

*which*. Each goal-directed activity ends with an ultimate purpose according to Heidegger, in the case of writing a thesis it is being a professional in philosophy. This is a possibility of Dasein's being according to Heidegger. That is to say, to be a professional in philosophy is a possibility of my existence as a Dasein.

The operational status of the procedure is as following: I am writing a thesis by using a laptop (with-which), in my room (in-which), in order to write this piece (in-order-to), which is aimed at being handed in as my thesis project (towards-this), for the sake of having a master's degree (for-the-sake-of -which). This is the way Heidegger explains his series of involvements. He gives a crucial role to for-the-sake-of-which, since it is the ground of all involvements. As long as my laptop works properly it is a transparent aspect of my experience as a master's degree student. But the thing is, if somehow my laptop stops working properly, the problem would cause the totality of involvements to be enlightened to me. In this respect, he tries to point out the everydayness of the laptop and my relation to it as long as it keeps working properly. This relation is in some sense a primordial one. I do not contemplate about how I move my fingers or where the "F" key is located on the keyboard while writing it. I just write my thesis on 'the philosophy of mind' as a master's degree student. I will investigate in more detail how Heidegger considers these relations, in the following sections.

All in all, in Heidegger's ontological understanding of the world, Dasein is surrounded by objects, of which it only pays attention to some, those it uses as 'equipment'. In this respect, decontextualizing of equipment is not a reliable way of investigating Dasein to Heidegger. Following a debate without taking the relationship of equipment to the subject into consideration is nonsense in this manner.

#### 4.4 Ready-to-hand vs. present-at-hand relations

As relations Dasein sets with its environment are crucial to Heidegger to understand Dasein and its everydayness, I will be referring to them in order to shed more light on it. Despite the fact that Heidegger does not explicitly talk about non-human animals or babies in *Being and Time* in a way I consider them, I will try to understand and borrow some ideas from his theory in order to support my own arguments.<sup>14</sup> For this reason, I will try to be cautious while I borrow and use them within my theory.

Dasein is not a *subject* for which the world is an *object* over/against it. It is surrounded by an environment with which it beholds relations to things that it will call equipment. Heidegger basically introduces two types of relationship that Dasein has with its environment. They are namely *ready-to-hand* and *present-at-hand*. Dasein experiences ready-to-hand in its average everydayness, while present-at-hand is a little bit more complex. They also help me to show how these stand for a dual system understanding of mind. I will be investigating these two types of relations below.

##### 4.4.1 Ready-to-hand relations and affordances

If we go back to the example of writing a thesis, there is no separate object (laptop) or subject (a master's degree student, me); but rather the experience itself (writing my thesis project). They are just means of achieving my final aim which is getting a

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<sup>14</sup> To be fair, I want to mention an article discussing Heidegger and his account of animals from Andrew J. Mitchell (2011), *Heidegger's later thinking of animality: The end of world poverty*. It investigates it by reference to the two books of Heidegger: *The fundamental concepts of metaphysics: world, finitude, solitude* (1983) and *Poetry, language, thought* (1971). Since this text does not cooperate with what I try to discuss within my project, I do not go into details of it. However, I prefer to rely on Heidegger's *Being and time* and borrow his account of Dasein to use for my project.

master's degree. Since they do not form a relation of subject and object to me, they are just aspects in one of my meaningful practical activities. This ongoing relation between me and my laptop is a ready-to-hand one in Heidegger's view. It has no consciousness involved, but a type of pre-ontological knowledge of my daily activity itself. In general, I learn about the explicit rules of writing a thesis first, and then I withdraw them from my point of attention after a while, let's say when I start to excel in it. I write my thesis without explicitly referring to those rules, as in the example of not searching for the "F" key. Heidegger himself gives the example of a carpenter using a hammer. Hammer is a tool for a carpenter in his/her everydayness. He/she uses it without reflecting upon his/her moves. That is to say, how he/she hits the nail each time, and what type of a nail he/she needs for different kinds of wood stays in his/her attention until he/she excels in this activity and internalizes it as his/her everydayness. It is the same with me while I am writing my thesis with my laptop. This type of relation Dasein has with his/her environment is called the *ready-to-hand* relation by Heidegger.

This type of relation does not possess a subject-object relation between the tool and Dasein itself, but only a pre-reflective awareness of it as a tool. Not having a subject-object relationship means that Dasein does not reflect himself/herself as a separate being using the tool by externalizing the process. Indeed, the process internalizes the being of the subject and its tool as an object and rather forms a unique and harmonical process. That is why I do not have to think about how I will move my own hand to click on the "F" key which is a part of an external object, my laptop; but rather I do it almost automatically. On the other hand, having a pre-reflective (pre-ontological) understanding of the environment is required for me to have a meaningful relationship with it. This is how the world discloses itself and how



we have relations with it in a reciprocal way. These features of the ready-to-hand relation are crucial because they are basically what distinguishes this type of relation from the other one, present-at-hand.

To go on, ready-to-hand relations of Dasein can be considered as agent-relevant. Because objects are perceived and made use of by the agent in a way parallel to the way in which he/she is involved with it within his/her daily activities. Here I do not refer to relativity of perception among beings. To make it clearer, let us think of a hole in the door. To me, a door stands to split the indoor area from the outdoor and provide protection for the house as a gate. So, a hole would be something unwanted and would cause me to feel the urge to fix it. In other words, a hole in the door would be something disturbing the completeness of the door as a tool for me, while it would stand as an opening for my cat. Because my cat can easily make use of that hole as an opening to the yard, while this cannot be the case with me. That is to say, the relation that I and my cat have with the door is ready-to-hand for both of us. But it differs in line with how we make use of it, so we can say it is agent-relevant and only meaningful within our own everydayness.

On this level, I find it helpful to refer to Gibson's *affordances* to explain what I mean by ready-to-hand relations being agent-relevant. According to Gibson, our perception regarding our environment governs actions in an inevitable way. So affordances are possibilities in the environment for action. He talks about meaningful perceptions of those affordances in an invariant combination of properties, which cannot be isolated from the agent itself. Gibson himself gives the example of a postbox. To him a postbox affords mailing for ones who have the habit of writing a letter. But for someone who does not have the habit of mailing, a postbox would mean some other thing. So does air afford breathing for me while it might stand as a

dangerous stimulator for someone in the middle of a fire. That is to say, the relations I hold through my environment are agent relevant because they depend on what that thing affords for me as an agent.

For this reason, I find Gibson`s approach very similar to Heidegger`s which argues for a holistic phenomenology and equipment-wholes. They both disagree with the approach that isolates substances from their environments and they both try to stress the importance of relations that agents build through them while discussing about their environment.

Something *ready-to-hand with which* we have to do or perform something, turns into something 'about which' the assertion that points it out is made. Our fore-sight is aimed at something present-at-hand in what is ready-to-hand. Both *by* and *for* this way of looking at it, the ready-to-hand becomes veiled as ready-to-hand [...] this discovering of presence-at-hand, [...] is at the same time a covering-up of readiness-to-hand. (Heidegger, 1962, p. 200)

All in all, this everyday experience of Dasein within its daily practices never enlightens itself explicitly until there appears some type of malfunctioning. So, if somehow any aspect of the perfectly working process is broken in my practical activity, then I start to contemplate it and try to find out its very essence, aiming to fix it. Again in the example of writing my thesis, let`s say my laptop stopped working while I was using it. So, writing my thesis by using my laptop as a tool to achieve my goal starts to reveal itself explicitly after the occurrence of a defect. After this point of time, I start to contemplate how I used to make process work perfectly in my everyday activity; which does not happen regularly while the process works within everydayness without any defect. So, I start approximating to present-at-hand relations even though I do not move into it completely. In this respect, I claim that these two relations resemble a dual system that interacts with each other. This is how ready-to-hand relations excel themselves by interacting and approximating present-

at-hand relations. To understand this type of relation of interaction in a better way, I will introduce the other type of relation Dasein forms with its environment.

#### 4.4.2 Present-at-hand relations

The other type of relation that Dasein forms with its environment is called *present-at-hand*. Heidegger considers this type of relationship to emerge only in philosophical contemplation, practices of natural science etc., which basically involves both a subject-object relation among and consciousness over the activity itself. Which means these require a more theoretical understanding of the issue itself. For example, while we are discussing the existence of some abstract entities, let us say Pegasus, we would be putting a clear distance between the object (if we may call it) and ourselves as the subject within this practice. I consider myself separately from the object I contemplate, there can be no way that this object can be a tool to me or be a part of my everydayness; so a subject-object relationship is somehow inevitable. In addition, philosophical contemplation itself cannot be practiced in an almost automatized way as I can do while I am using my laptop; I have to be fully conscious of the issue going on.

To go back to the discussion of being agent-related, present-at-hand relations contrary to ready-to-hand relations are not agent-related. They are rather *agent-neutral*. As stated these types of relations are limited to some certain types of activities, which are not part of daily routines. This type of relations cannot be considered from the point of affordances, because having such types of relations with the environment requires an agent to step back and stand in a neutral position within the activity. Standing neutral does not mean being passive, but rather the activity itself cannot be described in terms of agents' relation with it.

After investigating these two types of relationship that Heidegger introduces, I find it helpful to refer to a point where Heidegger himself pays attention to clarify. According to Heidegger, in case of a defect in my everyday activity, Dasein's relationship with its environment does not shift into a present-at-hand relationship from ready-to-hand, it might only be considered as approximating to it in the best case.<sup>15</sup> The full-blown present-at-hand relations are only possible in the philosophical contemplation, practices of natural sciences etc. as explicated above. To reconsider the example of me -writing my thesis, when my laptop stops working I go out of the pre-reflective awareness I have of my laptop and approximate in some such consciousness, and also externalize my laptop as something separate than a tool in a relation with me.

This totally makes sense in my opinion, because in one way or the other my laptop is a part of my everydayness due to the meaningful relation I have with it, for this reason even if it becomes defective it is still part of my environment as a tool and serves a series of aims in my being. When it comes to abstract entities, philosophical contemplation or practices of natural science we could easily find that an automatized way of doing these is not possible and they do not stand as tools to us. This also makes these practices impossible to be free from subject-object relationship and totally pre-reflective to the subject. This part will derive a critical discussion for my project. For this reason I will focus on it in a separate section below.

All in all, Dasein experiences both present-at-hand and ready-to-hand relationship with its environment. In average everydayness, it experiences ready-to-

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<sup>15</sup> There are different appropriations on the issue whether if ready-to-hand approximates to present-at-hand in the case of a defect. One of these appropriations is Dreyfus'. He interprets ready-to-hand as approximating to present-at-hand when the tool is broken and the agent is contemplating on it. In this respect, I prefer to take Dreyfus' reading of Heidegger into account.

hand relations; but it also has the capacity to have present-at-hand relationship. We may consider present-at-hand as a second order relationship, or as a meta-representations issue. By investigating Heidegger's Dasein's context, I aim to claim that what is distinctive in human babies is their ability to step from the phase of holding ready-to-hand relationship with their environment to a phase in which they are able to form present-at-hand relationships as well. It does not mean that human babies after stepping into the second phase (meta-representations as a milestone) only have present-at-hand relationship with their environment. They gain the capacity to have meta-representations (present-at-hand relationships) over their environment with the help of a developed capability of having meta-representations from the age of 4. They are both able to have ready-to-hand and present-at-hand relations.

In the case of non-human animals, they are unable to switch to the second phase in my point of view. Since they cannot develop consciousness or meta-representations, there is no possibility for them to have present-at-hand relationships with their environment. A tree will always be a tool to them, in which there is no subject-object relationship but a pre-reflective (pre-ontological knowledge) awareness towards the tree. It will always be a sign of territory to them. They will not have any contemplation with the concept of tree. Nothing will partake in their mental world as subject of a present-at-hand relationship. In this respect, to reiterate my account what prevents non-human animals from switching over phases as human babies do is their inability to develop meta-representations which is the basis of developing false-belief understanding. Non-human animals experience ready-to-hand relationship with their environment, which doesn't require meta-representations but a type of pre-reflective awareness towards it.

For this reason, I find Heidegger's Dasein and its relation to its environment helpful to introduce my understanding of meta-representations. I will be investigating meta-representations in detail while trying to introduce an approach based on it.

#### 4.5 Meta-representation

So far so good, I discussed how the investigated theories cannot give a proper account to explain what capabilities human babies develop that distinguish themselves from non-human animals. To reiterate, I compare human babies within their first year of life to non-human animals. As I argued against the classical view, which degrades the difference among non-human animals and humans to linguistic capabilities, I will introduce and investigate meta-representation as an alternative distinctive capability for humans.

In order to understand what representations are let us go back to what beliefs are. Beliefs are maps by which we steer, as well as they are representations of the world. Since I build up my theory upon beliefs, I will not go further into investigating what else representation can be. Representations are shared among non-human animals and humans. As I agree that non-human animals might have beliefs, no need to remind that I agree they have representations.

So, meta-representations are somehow second or higher-order representations, in other words representations of representations. As I already discussed while I was investigating Davidson, asserting consciousness as a requirement for beliefs is an invalid approach in my point of view. And as already stated it somehow obstructs non-human animals and even very young babies from having beliefs. By denying it I am leaving room for non-human animal belief but

also giving a broader understanding of belief. Therefore, consciousness is not a must for beliefs but rather for meta-representations, which is a higher order mental state.

#### 4.5.1 Meta-representation and non-human animals

After investigating the psychological approach which tries to point out how the process of developing different mental capabilities in human babies should be evaluated based on false belief understanding, I find it quite helpful to leverage this approach parallel to meta-representations. As already stated in the previous chapter, De Bruin was the one addressing meta-representations while trying to give a proper account why it takes two years for human babies to be successful on elicited-response FBTs after being successful on spontaneous-response FBTs. De Bruin was also trying to make his position clear by discussing language as a possible explanation for the so-called 2 years of difference in success among different FBTs, which he ends up by withdrawing. I find this effort quite similar to my attempt to position language within my theory. I will try to deep dive into the details of the cooperation between the psychological approach and meta-representation by referring to Heidegger.

To reiterate, capabilities of human babies till the age of two has strong resemblances to non-human animals and their capabilities through their whole life. Human babies till the age of 2 navigate themselves with their survival-based actions, as non-human animals do all the time. These survival-based actions are what Heidegger names within his theory as everydayness of Dasein. Even though Heidegger does not explicitly talk about non-human animals or babies, I do not see any problems to import his ideas to those two. Gerner (2007) reports how Heidegger describes Dasein as follows:

The basic structures of the being of Dasein he will call *existentials*. These are contrasted with *categories*, which refer to the basic structures of the being of entities other than Dasein. The most basic of the structures of the being of Dasein is what he will call *being-in-the-world*. Dasein is *in* the *world* not in the sense of one thing being spatially contained in another thing but rather in the sense of being *engaged* with things. Dasein is not a *subject* for which the world is an *object* over against it. It is possible for Dasein simply to behold things, but such mere beholding is only possible as a modification of engaged having-to-do-with things. The things with which are engaged are in a broad sense *used* or *employed*. Such entities are what he will call 'equipment' (*Zeug*). (p. 4)

Both human babies and non-human animals are in the world as beings engaged with things surrounding them and they make use of these surroundings to survive. For this reason, I do not see any reason why I should not implement Heidegger's conceptualization of Dasein for non-human animals and human babies. To start with non-human animals, they act through things surrounding them in order to tag their own territories, feed themselves, and be safe. These might be considered as 'for the sake of which' they act. A dog buries its bone into the earth by aiming to store food for times when it cannot find food, or it urinates at the bottom of the trees to sign its territory and protect it from other animals. So while performing all those actions the dog is engaged with its environment within its own meaningful action that forms its everydayness. The tree that the dog pisses on, the earth it buries its bone in, somehow stand as tools to the dog itself. It makes use of its environment in a meaningful way for its actions. All in all, we might easily infer and say that the dog forms ready-to-hand relations with its environment. It does not externalize the tree or earth as separate objects other than itself, so it does not have subject-object relations with its environment. In addition, its actions are pre-reflective rather than being full-blown conscious ones. That is to say, it is not the case that dog itself is fully aware of the idea of urinating and burying. It only has pre-reflective awareness towards the tree and the earth in order to use them within its meaningful activities. There is no



way that the dog might develop present-at-hand relations with its environment, which basically derives with meta-representations. Due to lack of consciousness within its activities, we are unable to speak about meta-representations taking place in case of non-human animals. They have representations of, let us say, `territory of some other dog` by relying on the smell of the urine at the bottom of tree etc. However, they can never contemplate on the concept of a `tree` or over the representation they have upon the tree itself. For this reason, we might only talk about a dog`s holding representations regarding their surroundings with which they engage in their meaningful activities accompanied by pre-reflective awareness they have of those surroundings. On this level, I find it relevant to spend some time on investigating how to describe pre-reflective awareness.

#### 4.5.2 Pre-reflective awareness vs. consciousness

After spending some time on investigating meta-representation, focusing on the difference between pre-reflective awareness and consciousness is crucial especially to position my own theory. In order to do this, I will investigate them in more detail by referring to how they operate for non-human animals and humans.

As Heidegger points out within his theory, beings develop a pre-reflective awareness towards their surroundings in a meaningful way within their everydayness. Every day, I take the very same route from campus to where I live. The grocery is always on the corner, I take the first left from the grocery, then the bar is always on my left hand side, the market is always on the right hand side and the dry cleaner is always on the ground floor of the apartment. However, within my everydayness, I do not pay attention to where exactly they are located. I have a pre-reflective awareness of the grocery, the bar, the market and the dry cleaner. They

stand ready-to-hand to me, of which I somehow make use for navigating myself from campus to where I live.

Armstrong's (1968) example of the absent-minded driver is an often cited one, which tells about a driver arriving at his/her final destination after having been driving on 'automatic pilot'. Which indicates the driver was driving without noticing the route he/she has taken, in a way while his/her attention was directed somewhere else. Because the route itself does not have a role within the driver's meaningful activity but rather the final destination itself. So, the driver had a pre-reflective awareness towards the route he/she took. To reiterate, this cannot also be considered as I am unconscious of my surroundings because I somehow make use of them within my everydayness but do not contemplate on their own beings due to the fact that it wouldn't have a specific usage for me.

Consciousness, on the other hand, is required for much more complex mental states as present-at-hand relations are limited to some specific activities like philosophical contemplations, natural sciences etc. as Heidegger claims. In order to have a better understanding, I will try to pay more attention to those activities, how they can be possible over time in human babies, which hopefully nourishes my position about consciousness.

Let us say Stephen is a 1-year-old baby and he throws his toys at his friends. When he does so, his mom tells him that is not right and nice. Even if he does not understand his mom's words properly he starts to develop some kind of an awareness which indicates what he is doing is not good. At 2 years of age, Stephen starts to develop some linguistic skills as well as some further capabilities like registering and tracking others mental states. So, now when he throws his toys at his friends he knows that his mom will not be happy with that but still cannot put the right

correlation between his actions and his mom's reaction based on her beliefs. He develops an implicit understanding of others' beliefs, but due to lack of folk psychology understanding fails to attribute or expect actions based upon them. We might say, he still has pre-reflective awareness upon of his actions, and their results.

At four years of age, Stephen starts excelling in much more complex mental states and makes the right correlations with his mom's beliefs and actions. This is the ability of meta-representation accompanied by folk psychology understanding, which makes Stephen more adult-like in his actions and expect his mom to act in a way parallel to her beliefs. This may be possible since Stephen now has the capability to develop meta-representations and so consciousness of results of his actions. So, he can step back from what he does and pretend he did not when his mom is around. That is to say, his own activities, others' mental states and the possible actions that can be taken upon those are enlightened by the help of consciousness for Stephen. What I take consciousness to be for my project is such a higher-order mental capacity over someone's own thoughts and over others' thoughts as well as some more complex ideas.

So now, let us assume Stephen throws his toys at his friend again and his mom shows up and says let us discuss about what is right and what is wrong. This discussion in a way leads to a philosophical contemplation about ethics at some point. So, Stephen steps back from his everydayness, his particular actions like throwing toys at others and contemplates with his mom on *ethical issues* which he does not enjoy within his daily life. This is an activity which cannot be done without being totally conscious of it.

All in all, the requirements of consciousness while having philosophical contemplations as Stephen does with his mom are almost obvious. Contrary to pre-

reflective awareness, consciousness itself is a much more complex and higher-order mental capability, which develops both by age and also parallel to development of other mental capabilities like meta-representations. In addition, consciousness and meta-representations feed each other and so develop together. I must also state that linguistic abilities are effective on those mental capabilities to excel by practicing especially philosophical contemplations and natural sciences. Since non-human animals do not have the capacity to develop both linguistic abilities and meta-representations, it is impossible to speak about consciousness in them.

As I have tried to point out throughout my thesis, language does not have a privileged position among all those mental capabilities that distinguish humans from non-human animals but rather has a complementary position to meta-representation, which stands as the most essential element in my theory. Meta-representation is possible through consciousness, and excels by its practicing in language.

## CHAPTER 5

### CONCLUSION

Throughout this thesis, I tried to reconsider the position of language within the discussion of belief. After investigating two opposite priority-based understandings of belief -Davidson and Armstrong- I ended up arguing both against language-bound and consciousness-bound theories. I rather argued for an understanding of belief, which compares beliefs to maps by which we steer. I also pointed out the importance of the mental state acquirement process, which helped me to further discuss about the redundancy of language-bound theories.

Then I introduced the concept of falsity as a much more major aspect of the discussion of philosophy of mind which helped me to put my motivation behind introducing false-belief tests made in the field of developmental psychology. With the help of those empirical studies, I argued for the necessity of a dual system understanding of mind that has interaction among each other. I also argued about the role of folk psychology within the discussion of belief. Most importantly, those studies helped me to shed more light on the process of mental state acquisition, which thankfully addressed the irrelevancy of language and belief, as against a much more crucial aspect of the discussion for my project: false-belief understanding.

Later on, I investigated the motivations behind theories introduced within my thesis as well as my own motivation. I positioned myself contrary to the ones introduced, whether for shaking the status of humans for preserving it. I rather positioned myself for preserving humans' status by pointing out the right discriminators among animals. That is why I further focused on the ability to develop false-belief understanding and showed how this can be possible in human babies

while they are growing up, unlike to non-human animals. Since I considered a commonsensical approach much more valuable than the theoretical approach I followed Heidegger and his phenomenological suggestions on Dasein`s everydayness. I introduced and borrowed the relations of Dasein with its environment, which is crucial to present meta-representations as the required mental ability for developing false-belief understanding.

All in all, I argued for an understanding of belief as possible in non-human animals and humans irrespective of their ability to develop linguistic capabilities. I distinguished between beliefs that humans and non-human animals develop in terms of their being conscious or pre-reflectively aware. I ended up claiming that non-human animals are limited to a pre-reflective awareness type of beliefs while humans may easily have both of those types of beliefs.

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