

Can Armstrong cope with Libet's challenge?

by

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**This dissertation is submitted in fulfilment of the
requirements for the degree of
Masters
at the
University of the Western Cape**

The logo of the University of the Western Cape, featuring a stylized classical building with columns and a pediment.

UNIVERSITY *of the*
WESTERN CAPE

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2019

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KEYWORDS

Actions

Armstrong

Brain activities

Conscious will

Consciousness

Free will

Introspection

Libet

Mental states

Voluntary action



ABSTRACT

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According to our ordinary conception of voluntary action, our actions are the causal result of conscious intentions. To take a very basic example: I wish to take a sip of coffee, and I therefore reach out and take hold of the mug. However, studies performed by Libet challenge this ordinary conception. What Libet found in his experiments was that the brain initiates voluntary actions and the person becomes consciously aware of an intention to act only some 400 msec after the brain's initiation; for instance, my brain has already initiated the process of causing my arm to reach out and take hold of the mug some 400 msec before I am aware that I wish to take a sip of coffee. That is, conscious intention doesn't appear to precede voluntary action at all – it actually follows it (or follows its initiation, at least), and thus Libet's studies present a serious challenge to our ordinary conception of voluntary action. This project will investigate whether a particular theory of mind – namely, Armstrong's Central State Materialism – can cope with the challenge posed by Libet's studies and salvage our ordinary conception of voluntary action. Armstrong's theory appears promising in this regard because his account of consciousness and introspection as higher-order states seems to allow room that we will become aware of our willings only after those willings are already initiated.

November 2019

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Chapter I

Introduction

We usually think of voluntary action as something that we do at our own will and something that involves a conscious intention. When a person simply decides to flex her wrist and flexes it, it is natural to believe that the conscious decision to move causes the voluntary act. However, Benjamin Libet¹ challenges the common view of voluntary acts and the broader view that we have control over our actions. Libet's challenge is that our voluntary acts are initiated unconsciously by brain activities. According to Libet, we become aware of a decision to act some time after the unconscious brain activities begin. Libet's experiments have seemed to have implications for our understanding of consciousness and free will, in particular. I will investigate whether the account of consciousness David Armstrong² offered in his theory of the mind is able to cope with Libet's challenge and leave a space for the effectiveness of our conscious will. We can understand Armstrong's account of mental states in the sense of higher order states –we have different order mental states, such as first-order, second-order and third-order, the states of a higher order being states about states of a lower order. His account of consciousness is one of states that are about other states so I will investigate the possibility that this makes sense of brain

1 (Libet, 2004). All references to Libet in this thesis are to Libet (2004).

2 (Armstrong, 1968). All references to Armstrong in this thesis are to Armstrong (1968) unless otherwise stated.

activities happening before a conscious state – that involves a second-order state. And since introspection on Armstrong’s account is awareness of a second-order state – that is, a third-order state -- the time taken for subjects to report this no longer seems so obviously threatening to our free action. This project will investigate whether Armstrong’s account of consciousness and introspection can defuse the threat posed by Libet’s experiments. Therefore, the research question I will try to answer in this thesis is: *Can Armstrong cope with Libet’s challenge?*

To answer this research question I will divide this thesis into five chapters of which each has a specific purpose.

In the first chapter I will have a closer look at Libet’s challenge and the notion of voluntary action. In order to do this, I will focus on our ordinary conception of voluntary action. I will discuss Libet’s experiments and how they pose a threat to our ordinary conception of voluntary action and additionally I will focus on the notion of control and free will. In this way, we gain an overview of the ordinary conception of voluntary action and the specific argument studied in this thesis; that is, what Libet’s challenge is.

In chapter two I will have a look at what research has already been done. I discuss Armstrong’s theory of the mind with specific focus on his account of consciousness and introspection. This chapter will later form part of what will help us identify the limitations in Libet’s notion of consciousness and introspection and how this influences what he proposes as the results of his experiments.

The third chapter is a short one that briefly discusses how Armstrong’s theory can be seen to cope with Libet’s challenge. In the fourth chapter, I discuss the objections and limitations of his

theories. Chapter four also looks at defusing Libet's challenge and how Libet's challenge is no longer a threat. The thesis is concluded with the final chapter five.



Chapter 1

Libet's challenge

The philosophical debates around Libet's experiments are mostly focused on the implications for free will. The goal of this chapter is to discuss the implications Libet's experiments have on our ordinary conception of voluntary action and the broader view of free will. By addressing Libet's experiments and their associated claims, I will show how Libet's discoveries threaten our ordinary conception of voluntary action and free will in general. We start this chapter by having a closer look at the ordinary conception of voluntary action.

1.1 The two understandings of voluntary action

Earlier on I mentioned that our ordinary conception of voluntary action is the idea that our actions are the causal result of conscious intentions. However, there is more to voluntary action than what I have already mentioned. Before we have a look at Libet's experiments, we must consider two features of voluntary acts in order to have a better understanding of the problem implied by Libet's study. There are two distinct common sense ways of understanding conscious will and voluntary acts, one is that of neurophysiology and another is that of psychology (Bittner, 1995). The psychological understanding is that we have a conscious willing going on when we have a voluntary act to produce. On the other hand, the neurophysiological understanding is that we have brain functions which control our actions. These two understandings are usually taken to be two different versions of the same process of voluntary action by philosophers. Previous

philosophers and perhaps even ordinary people believed that the mental states somehow instantiated in the brain activate the muscles to produce voluntary action- without such interaction we have mere behaviour. Unless the action is initiated in the mind – acted out, in some cases, explicitly in imagination – then the external behaviour is not really an action. Action on this definition is always voluntary or intentional action. If my bodily movement is not intentional, then it is mere behaviour, something like reflex behaviour. If my bodily movement is determined by something other than my own reflective thought, then it is involuntary movement, not action. However, Libet suggests that what we understand as action is not initiated in the way previous philosophers thought it was initiated. Libet’s experiments, as he would want to reflect, suggest that the above-mentioned understandings are, in fact, not two roughly true versions of voluntary action as philosophers would have believed. On the contrary, Libet’s case seems to show that these two understandings do not coincide. Libet’s account of voluntary action is troubling because it is entirely different from how we commonly view voluntary action.

1.2 The common view of free will

The problem of free will has been a long standing issue in the study of metaphysics and in the broader field of philosophy. The problem of free will is closely connected to the problem of voluntary action since voluntary acts are acts which we do willingly. The fact that I can perform a voluntary act involves the fact that I have free will.

What is the common view of free will? Free will is usually seen as the conscious ability to make choices and decisions which will influence the direction of our actions. It is widely believed that it is only fair to hold someone morally responsible for an action if they were free to perform that

action (i.e., they were in control) (Nichols, 2011). The common view of free will is as follows: Before we act, we usually have thoughts; these thoughts are known either as intentions or beliefs, which are our plans that motivate us to an action (Mele, 2009; Holton, 2009). Not all thoughts will lead us into action but our beliefs about the most appropriate act fitting to the circumstance would usually lead us into that act. For example, in a situation where there is a wedding, I might have thoughts about various outfits to wear, what time I am going to arrive at the wedding, and whether I am going to attend the wedding or not. These thoughts will then determine when I go and what I wear.

The problem of free will concerns the issue of when we can say someone is free willed. We are commonly held to be responsible for an act when: (1) we make a choice *freely* and (2) when we have a conscious intention to act. In other words, responsibility is related to free will in the sense that if a choice is not made freely, or we have no conscious intention corresponding to an action, then holding us responsible seems inappropriate. However, Libet seems to suggest a fairly different view. Libet believes that the most effect we can have is a 'Conscious Veto' to prevent an action at the last moment (Libet, 2004: 137 - 138). Our actions would take place whether we will them or not; the most we can do is prevent them in certain limited cases. Before we continue, it is important to understand kind of cases in which we are not free in order to fully grasp the problem that Libet has set up.

1.3 Kinds of cases in which we are not free

In order to understand the nature of a free voluntary act we also need to have insight into cases which philosophers and ordinary people view as those when we are not free. Here I will discuss the concept of habits, external stimuli, and compulsion. These cases are important when considering conscious and unconscious acts. Habits do not seem to be an act where we are not free but it is nevertheless important to discuss them in terms of unconscious actions.

Habits consist of any action that we grow to be comfortable with, although not in all cases, and that is mostly an action that is often repeated, unconsciously and effortlessly (Judah, Gardner & Aunger, 2013). When a subject feels a sensation, and this type of sensation is similar to previous sensations that have been experienced by a subject, then the subject is most likely to respond in the same manner – if not in an exactly similar way. It can be inferred that if a subject has experienced a sensation before, especially if it was experienced more than once, then it becomes a habit to respond to the same sensation in a similar way (Judah, Gardner & Aunger, 2013). This we can then think of as habits, once we continue into doing the same action automatically. In any case, habits are mostly unconscious and need to be an important consideration when discussing voluntary action. We may still hold someone responsible for something they do out of habit, although it is not a paradigm case of an action. Libet, however, is not saying that voluntary actions should be seen as habitual actions, to which responsibility may still apply. In Libet's view, voluntary actions are in a sense more unconscious than habitual actions.

In voluntary action, in everyday life we are faced with various tasks. When we are faced with tasks it is a common thing to presuppose that we have the option to choose. For instance, if we

have various tasks in a day then we usually prioritize tasks. Similarly, with voluntary action we prioritize what acts we prefer performing over others. Sometimes prioritizing our voluntary acts is influenced by external stimuli, such as traffic, weather, objects, or transport. Usually we plan and prioritize around external circumstances although new circumstances may occur which require us to change our route of voluntary action. For instance, in a case when the bus is late then we might wait for the bus or decide to undertake a different voluntary act. These stimuli, though external to us, are not compelling in the wrong sort of way – i.e. we don't see them as making us not free. They limit our choices, but it does not mean that we have no choices. Once again, Libet is not pointing to influences of this type – he is arguing that what goes on in our brain is compelling in the wrong sort of way.

The notion of compulsion is an important aspect when we are considering Libet's threat since compulsion entails a case of a non-free action. Typically, we think of compulsion as something that involves no choice (Holton, 2009). When we are compelled, then, it means that there is nothing that we can do to change the action which we are compelled to do. Also, we have no control or freedom in our actions if our actions are compelled. Compulsion is different to conditioning and addiction. If you are conditioned or addicted, then you may still have the ability to do otherwise. In the case of compulsion, you may well have an opposing desire to do otherwise, but you can do nothing about it. You are not in control – and that is Libet's surprising claim of *all* actions.

Our ordinary conception of voluntary action is that our actions are caused by our conscious intentions but Libet thinks that our actions are not controlled by our conscious intentions.

Instead, Libet thinks that at best we have a different type of control which is the ability to veto neurally-initiated actions.

1.4 Libet's experiments

Libet's experiments were done over a series of forty trials. Experiments were done in the past where recorded electrical activity in the brain, called Readiness Potential (RP), was found to precede any voluntary act, specifically the act of a subject who was told to flex their wrist or fingers in a limited time frame (Libet, 2004: 130 - 132). Libet conducted a more detailed experiment where the subjects were also asked to flex their wrist or fingers but, additionally, they were asked to report a clock time for the experienced awareness of their intention to act. In addition, the subjects were given no limited time frame in which they could perform their freely voluntary act; Readiness Potential (RP) was recorded by electrodes attached to the head for accurate assessment. Averages between trials were compared.

Libet (2004: 134) claims to have found in his experiments that what happens before voluntary acts is a build-up of Readiness Potential (RP). What Libet (2004: 134) found was that the brain initiates voluntary actions and the person becomes consciously aware of an intention to act only some 400 msec *after* the brain initiation. Thus, Libet believes that it is not our conscious intention that is responsible for voluntary acts and that as a result we do not hold the freedom to act, that is, we do not have the free will that is commonly believed to be so important. This presents a major challenge to our ordinary conception of voluntary action, on which all of our common practice of holding others responsible is founded. If Libet's conclusions are correct, the ramifications thereof will be profound and far-reaching.

1.4.1 A closer look at the experiments

The possibility of this type of investigation was first brought forward by Kornhuber and Deecke who found that recordable electrical change in brain activity regularly preceded voluntary action. However, they did not consider the appearance of the Conscious will. Libet thought that if a subject could report a clock time and her awareness of her experience of the conscious intention to act, then this could work as a measurement of Conscious will. He attempted to show that free will is an illusion by experiments which show that voluntary acts are unconsciously initiated by the brain, although his objective was to find out where the conscious activity in the brain is situated. Libet's (2004: 126 - 128) explanation of his experiment follows as such:

The subject was seated about 2.3 m from the oscilloscope. For each trial, the subject fixed his gaze on the centre of the oscilloscope's face. He was asked to perform a freely voluntary act, a simple sudden flexion of the wrist at any time he felt like doing so. He was asked not to preplan when to act; rather he should let the act appear "on its own". That would allow us to separate the process for planning an act from that for the freely spontaneous will to "act now". He was also asked to associate his first awareness of his intention or wish to move with the "clock position" of the revolving light spot. That associated clock time was reported by the subject after completion of the trial. We labeled these reported times "W" for consciously wanting or wishing or willing to act. The RP produced in each such voluntary act was also recorded, with suitable electrodes on the head. [...] The W times reported for each group of forty trails exhibited a standard error (S.E.) of close to 20 msec. That was true for every subject, even though the averaged Ws differed among subjects. Because averaged Ws for all subjects was about -200 msec (before the motor act), an S.E. of ± 20 msec provided adequate reliability.

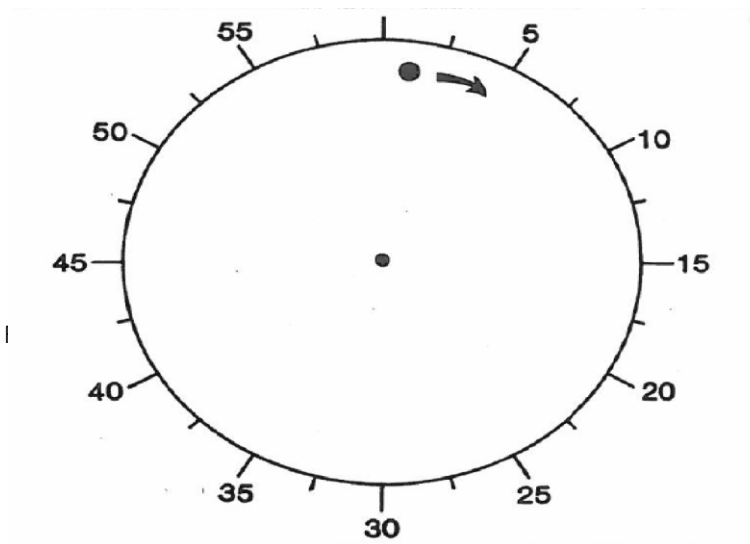


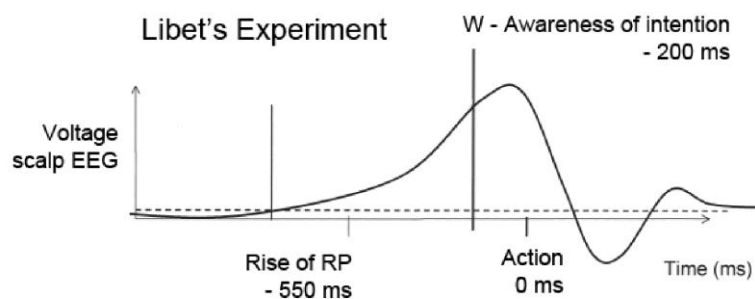
Fig.1.1. Here is an image of the oscilloscope used in Libet's (2004: 127) experiment.

The above-mentioned experiment was not enough as Libet needed proof of accuracy for his times of 'W'. So, he ran a series of forty trials for the accuracy of how subjects used the clock. The time in which the subject chose to act was left freely to the individual, with no encouragement of pre-planning, in order to have a free willed act – specifically a timing that would be free to act on. This was the weak skin stimulus experiment that Libet (2004: 128) explains as follows:

The subjects were asked not to perform any voluntary act but rather to note the clock time of the skin sensation, to be reported after each trial (as for W). The skin stimulus was delivered at random clock times for the forty trials. These times ("S") were, of course, unknown to the subject, but they did become known to us observers in the computer printouts. We could thus compare an objectively known expected time of a subjective awareness with the clock times reported by the subject. The reported S times were close to the actual stimulus times. But they did show a difference of about -50 msec (in other words, earlier) from the actual delivered stimulus times. Because this difference was fairly consistent, it could be subtracted as a bias element from the average W of -200 msec. that produced a "corrected" average W of -150 msec. A series testing reported

times of a skin stimulus were run in each session.

Fig.1.2. This image shows the results of Libet's experiment (Robert, 1968).



Some series of trials had subjects who reported having pre-planned a clock time in which they would act. Those series went as follows (Libet, 2004: 130 - 132):

Those series produced RPs (#1) with earlier onsets, averaging about – 800 to – 1000 msec (before the motor act) [...] These values were similar to those reported by Kornhuber and Deecke and by others for their “self-paced” movements. For this and other reasons, it appeared that “self-paced” acts, done with certain limitations imposed by the experimenter, probably involved some preplanning by the subject of when to act. In those series of forty acts in which the subject reported no preplanning of when to act, the onset of the RPs (#II) averaged – 550 msec (before activation of the muscle). It should be noted that the actual initiating process in the brain probably starts before our recorded readiness potential, RP, in an unknown area that then activates the supplementary motor area in the cerebral cortex. The supplementary motor area is located in the midline near the vertex and is thought to be the source of our recorded RP.

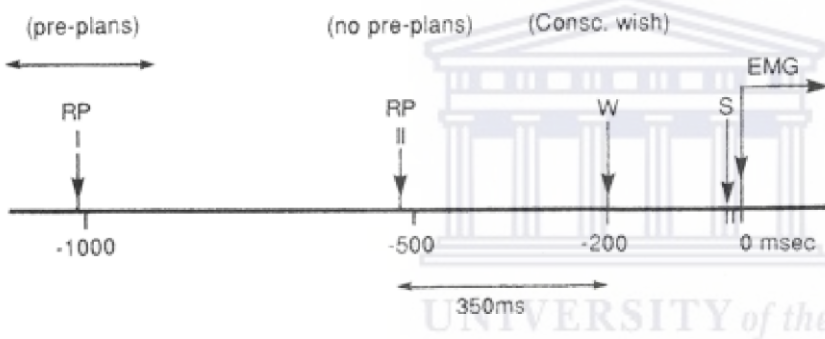


Fig.1.3. This diagram shows the sequence of events in Libet's (2004:137) experiments.

So by viewing fig.1.2 and fig.1.3, we can see in pre-planning an action, the RP onset is averaged much earlier than an unplanned act. Libet's study seems to show that brains unconsciously make decisions that people later on become aware of.

1.5 Libet's revisionary notion of free will

Libet (2004: 137 - 139) suggests that we can be held responsible to some extent for our actions because we have some control which he calls the 'conscious veto'. Libet maintains that although we are led to actions through unconscious brain activities and only some time after they have

begun do we become aware of the decision to act, we do have a miniscule time window to allow the act to continue to occur or to 'veto' it. So Libet argues that this miniscule time window happens 150 milliseconds before the motor act even though it follows the onset of the unconscious brain activities by at least 400 milliseconds. However, only 100 milliseconds is available for this window to affect or control the final outcome of the process since it is during the final 50 milliseconds that the muscle is activated and the act goes to completion with no way of stopping it. Libet thinks that this function matters because his experiments demand the question of whether or not we have such a thing as conscious will and this function seems to address this question. Also, this conscious will function is important for Libet since he acknowledges the fact that we cannot hold someone responsible for their actions if a person was completely unaware of their choices for action. Libet thinks that this function will be able to account for conscious will in the sense that conscious will does not initiate our voluntary actions but rather it can control the outcome by aborting the act or allowing the act to occur. According to Libet this conscious veto is a control function rather than an awareness of the wish (or perhaps of our intention?) to act. Libet speaks of vetoing as a common act; he argues that we especially make use of this function when the action is regarded as socially unacceptable or not in accordance with one's values.

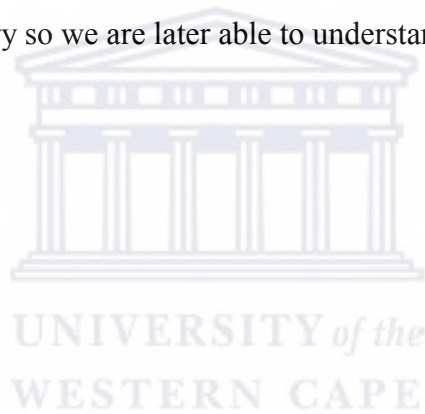
This type of 'control' or free will is evidently different to the common view, and it does not seem to be plausible to hold someone responsible in Libet's case of free will. Not merely because it is different to the common view, but because in Libet's case, it does not seem like we are using our common understanding of free will. The idea that our actions are initiated by unconscious brain activities that we are only able to direct into action – or not – sometime after, is not really what

we would like to think of as a free willed act. Free will does involve some kind of control but not the kind of control Libet would like to argue for. The common sense view of control in the free will sense would be that we have a free choice and a corresponding conscious intention to act which initiates our action. Libet would like us to believe that the kind of control we have is the kind that does not initiate our actions but rather it is a limited control that comes in after our action is initiated and we are able to either block the action or allow the action in a limited time frame, that is within the last 100 milliseconds before the act -- Libet argues that this kind of free will is different than being aware or having an urge to perform the action. Libet's notion of free will does not meet our standards for making us free willed as it involves a different kind of control. What we would like to think of as free willed act is when we have a preceding conscious intention corresponding to a choice that is made freely to act which we then act on. However, Libet would like us to think of a free willed act as us being able to either allow an act to completion or to block an act after it has already been initiated in the brain unconsciously.

1.6 Conclusion

Libet's experiment seems to show us how certain brain activities – also known as Readiness Potential (RP) – precede intention which suggests that the brain activities (RPs) initiate intentions. But this contradicts the view that intention should precede voluntary action (or any unconscious brain activities) in order for it to cause the action. This makes Libet's experiment seem as though it creates a problem for free will, amongst many other things and more specifically, our ordinary conception of voluntary action. By addressing Libet's experiments above we notice the different kind of control that Libet has in mind, that is the limited last minute control to dismiss or allow action. However, what is to be focused on is Libet's challenge

and whether this challenge can be addressed. This idea will be investigated in the next chapter by firstly looking at Armstrong's theory of the mind. Specifically, we have to look at Armstrong's account of introspection and consciousness. Armstrong claims that consciousness and introspection are special kinds of mental states which might explain why we only become aware of our conscious decision to act only sometime after other mental states have been present. So far we have had a look at Libet's experiments and their associated claims. By addressing our common understanding of free will and the problem of free will we were able to understand Libet's claims. In this chapter I have mentioned how Libet's experiments threaten our ordinary conception of voluntary action and free will in general and now it seems we are in a position to have a look at Armstrong's theory so we are later able to understand how Armstrong is able to cope with Libet's challenge.



Chapter 2

What is Armstrong's theory of the mind?

This chapter is about Armstrong's theory of the mind and in particular about Armstrong's account of introspection and consciousness. This is important because in the previous chapter we have seen the implications that Libet's results have on our ordinary conception of voluntary action, amongst other issues. If we have a look at how particular theories of consciousness and introspection might cope with the challenge that Libet has set up, then we may be able to save our ordinary conception of voluntary action and the common view of free will. The next chapter will focus on a view to how Armstrong might cope with Libet's challenge but for now the goal of this chapter is to gain an overview of Armstrong's account of introspection and consciousness so as to pave the way of what is to come.

Armstrong's theory of the mind takes a materialist approach to understanding the nature of the mind. Materialism is the notion that everything is made up of physical things. Armstrong defends a materialist approach which he calls Central State Materialism. Central State Materialism both allows for the existence of inner mental states, yet also preserves a logical connection between these inner states and outward behaviour. What Armstrong means by behaviour is physical behaviour which refers to physical action or passion of the body. Armstrong's Central State Materialism explains that mental states of the mind are just physical states of the brain that may or may not lead to behaviour. Armstrong's Central State Materialist account of the mind gives an

interesting account of the mind by analysing the concept of mental states and processes including amongst those introspection and consciousness. One of the most significant parts of Armstrong's theory of the mind is the concept of mental states in general.

For Armstrong, mental states can in general be analysed as states of a person apt for bringing about a certain sort of (physical) behaviour (Armstrong, 1968; Armstrong & Malcom, 1984).

Armstrong argues that mental processes such as perception are open to this sort of analysis. For example, a baby sees a blue block and reaches out for it. According to Armstrong, perceptions are the *acquiring* of belief, specifically, the *acquiring* of beliefs about the physical world although there are cases where perception occurs without the acquiring of belief. For example, a baby touches a burning candle and the baby forms a belief that burning candles cause pain when touched. For Armstrong, perception is a mental event with intentionality. Perceptions are mental events in the sense that they are definite events that takes place at definite instants and are then over. For Armstrong, belief is a dispositional state and perception is an event in which such a state is acquired. Perception is also characterized as a mental event having as its intentional object situations in the physical world. So perceiving is a mental event whereas the thing being perceived is something physical. In other words, perception involves our awareness of happenings in the physical world. Armstrong views introspection as something very similar to perception, except that its intentional object is an internal state.

Armstrong's theory asserts that inner mental states are physical states of the brain, characterised by the type of behaviour they tend to bring about. When we analyse mental states in this way, we are able to account for the different kinds of mental states and we are able to see that not all

mental states have the same role. A mental state can be a thought without one actually being conscious of that thought and without one actually being aware of the consciousness of that thought even if one was conscious of that thought. For example, I may have a thought about my dog but the thought may not be conscious and I may not be paying attention to my consciousness of this thought. Also, it seems plausible that my thought about my dog may or may not lead me to pat my dog. It seems this kind of mental state is something we are all capable of having because sometimes we have so many thoughts going on that we are not conscious of all of them and even if we were conscious of some of these thoughts, we sometimes do not pay attention to our conscious states or let alone provide reports about them. Armstrong's account of mental states includes introspection and consciousness. Armstrong's account of these mental states can be understood in terms of higher-order states – that is, we have different order mental states, such as first-order, second-order and third-order. Higher-order states are states that are about lower order mental states, the kind of mental state I have mentioned now (a belief formed in sense-perception) would be a lower-order mental state. Having a higher-order mental state involves being conscious of our own mental states and/or being aware of our own conscious mental states. So in order to understand the concept of higher-order states like consciousness and introspection we first need to understand the concept of a mental state which I have explained above. At the end of this chapter I will discuss how Armstrong's theory might cope with Libet's challenge. For now it is necessary to have a closer look at Armstrong's account of consciousness and introspection before advancing any particular claims.

2. 1 The nature of Consciousness

According to Armstrong, after characterizing all mental states as a state of a person apt for the bringing about of certain (physical) behaviour we would need an account of consciousness. If we only have a conception of mental states without an account of consciousness and introspection, then we would end up with an unsatisfactory account. So, if the former goes for all mental states in general, then consciousness must be shown to fit the model as well. Consciousness needs to be accounted for because it might be seen (in the Cartesian tradition) to be more than the occurrence of an inner state apt for the production of certain sorts of behaviour. Armstrong says that when we speak about consciousness of the mind this is not a mere theoretical concept because in our own case we seem to have a direct awareness of mental states and this seems to make sense. But what is meant by consciousness here? Armstrong points out three cases in which we talk about 'consciousness'. Firstly, we can be in a state of automatism when doing some sort of action like driving but then come to realize that we have done this action for such a long time without consciousness. This first example is a case of consciousness in the sort of way someone is unconscious to a degree. One is not completely unconscious like when we are sleeping because in this case we are awake and we perceive the environment around us but our actions are not the object of awareness. Secondly, we can think furiously about a problem, so furiously that one is unconscious to the world outside yet be completely aware of our own thoughts. This is the sort of consciousness we would be conscious of our thoughts but not of our environment. Lastly, when one is self-consciously trying to scrutinize what goes on from moment to moment in one's mind. Consciousness is simply an awareness, and no more than an awareness, of inner mental states by

the person whose states they are. So if the former is true then consciousness is simply a further mental state, a state directed towards the original inner states.

Armstrong further explains consciousness by comparing it to introspection. The term ‘introspection’ is sometimes reserved for the particular sort of self-inspection described in the third case above. However, Armstrong argues that the difference between introspection and consciousness seems to be one of degree. Armstrong points out that introspection is different to mere mental states in that it is a mental state that does not directly initiate behaviour even though introspection can play a part in bringing about behaviour. Put simply, introspection is a mental state that is the paying of conscious attention to (our own) other mental states. Such awareness is not a mere disposition or capacity to make statements about our mental states. We can either be aware of our own mental states for a long period of time or we can have mental states going on and then later we may suddenly be aware of them.

Armstrong’s account of consciousness is concise. Since for Armstrong introspection is an awareness similar to consciousness, Armstrong spends the most part of the nature of consciousness explaining introspection as an awareness. What follows is the discussion of Armstrong’s account of introspection.

2.2 Introspection

Introspection, which is a term widely used in contemporary philosophy, is understood as referring to the monitoring of our mental happenings or the private awareness of our own mental

states. Armstrong points out that introspection is different to ordinary mental states in that introspection is a mental state that does not directly initiate behaviour even though it can play a part in bringing about behaviour. We can either be aware of our mental states for a long period of time or we can have mental states going on and then later we may suddenly be aware of them. Generally, one could think of introspective knowledge, which is knowledge about your own mental happenings, to be more direct and private than knowledge that we gain from our senses or even perception. Armstrong provides us with an account of introspection by explaining introspection in relation and comparison to perception. Armstrong's account of introspection is different not only because Armstrong compares introspection to perception but also because introspection is characterized as a special kind of mental state. However, we cannot simply ignore Armstrong's particular focus on perception when giving us an account of introspection. For this reason it is important to gain more insight on Armstrong's account of perception.

Armstrong (1968:94) argues that we can treat awareness of our own minds as an 'inner sense'. In establishing grounds for treating awareness of our own minds as an 'inner sense', he considers the traditional notion of consciousness and introspection as indubitable. After all, it does seem peculiar to say that "I think am in pain now but I could be wrong" (Armstrong, 1968: 100). We could argue that since pain is a mental state and we are directly aware of our mental states, then I should have indubitable knowledge that I am in pain. However, we need to ask, what is indubitability? Armstrong defines indubitability in terms of logical necessity which I go on to explain below.

A dispositional statement need not be a logical necessary one and a logical necessary statement need not be indubitable. Given this situation, Armstrong defines logical indubitability rather than simple indubitability. This means that p is logically indubitable for A iff (if and only if): A believes p and (A 's belief that p) logically implies p . While this definition employs a notion of logical necessity, it itself is actually a distinct notion from logical necessity. Considering the definition above, in saying that introspective awareness is indubitable, we are saying that any belief we have about our mental states is inevitably true. If we say that our current mental states are self-intimating then we rule out the possibility of unconscious mental states and features of mental states of which we are not aware. Armstrong provides the definition that p is self-intimating for A iff: (1) p and (2) (p) logically implies (A believes p). So when we accept the notion of self-intimation and that our introspective awareness is indubitable we can assert that what we see in our own mind at the present moment, we see rightly. So taking the notions of self-intimating and indubitability of our introspective awareness, we may want to include that we have privileged access to our mental states.

It is a common opinion that each of us has logically privileged access to our own current mental states. Yet if introspection were a physical state in the brain, then since it will be a self-scanning process in the brain, there will be a conflict with this common opinion. Armstrong explains that it is always logically possible for such a self-scanning mechanism to yield the wrong results. Armstrong argues that if we are going to give an account of mental states as a state of a person apt for the production of certain behaviour and an account of introspection in relation to perception then we cannot argue for privileged access, that is, introspection as indubitable or

self-intimating. Knowledge of causes does not seem to be in a position to be indubitable.³ Surely any statement that one thing is a cause is subject to tests of future observation and experiment (Armstrong, 1968: 103). And if it is, then it cannot be indubitable. Now, since Armstrong's account of any mental state involves causation, it creates a problem for introspection being indubitable. If introspection is indeed indubitable, then this account is untenable. Thus, Armstrong argues against indubitable introspection and privileged access in favour of his proposed account of mental states.

Armstrong considers various arguments against indubitable introspective knowledge and arguments for the rejection of logically privileged access. Let us look at the arguments against indubitable introspective knowledge. One argument concerns time: if I think that I was in pain a second ago, then the thought and the pain must be distinct existences - it is always logically possible that there was no pain to correspond to my thought of pain and thus in this case introspective knowledge can be doubted. Another argument concerns our ordinary introspective reports: if we consider statements like "I am in pain now" and we want this statement to be of indubitable knowledge as well as true, then this statement will have to be reported at the exact instant when I am in pain. But this is hardly possible because the report will always refer to the time before I started speaking and it also depends on the fact that it takes time for me to make the report. So, my knowledge about my introspective reports can only be certain if it were made at the same instant that it happened. Finally, Armstrong argues that if the state of pain and the awareness of that mental state of pain are distinct existences, then there is always the logical

³ A statement that one thing is a cause of another thing, however arrived at, is likely to be subject to tests of observation and experiment in the future. (Armstrong: 103)

possibility of one without the other. It seems that if incorrigibility is given up, then logically privileged access cannot be sustained. What's more is that if we can be mistaken about our mental states and, at the same time, someone else can be correct about them, then the concept of privileged access is purely empirical. We would need to know more about physiological and behavioural connections.

If introspection is not indubitable then we are forced to admit the logical possibility of being in a mental state but not being aware of being in that mental state. This means that we should allow for the logical possibility of unconscious mental states. This also means that we would have to reject the view that mental states are self-intimating. Unconscious mental states, for the materialist, as a matter of empirical fact, are simply physical states of the brain that are not experienced (yet which are in a position to play some causal role in our behaviour).

In conclusion, Armstrong's accounts of introspection and consciousness can be viewed as different from other perspectives. It seems that if we can argue that introspection is not indubitable then this means that privileged access is not as obvious as we thought. Armstrong has provided plausible reasons for thinking that the common view of introspection is indubitable is mistaken. One reason still to be considered is that introspection is quite similar to perception in many ways and thus introspection is open to error as much as perception is; this becomes clearer in the section that follows. Consciousness as a physical brain state goes well with the argument that we could be mistaken about our own mental states. For if we were correct about our mental states all the time then this would mean that our introspective reports had to be reflected on the exact instance otherwise the mental states and the introspective reports would be distinct

existences. There seems to be a way of proving this when someone else is correct about our mental states and, at the same time, we are mistaken.

2.2.1 Perception and belief

According to Armstrong we can understand perception in two stages. The first stage is an account where perception is understood in terms of acquiring a belief or beliefs about the physical world. The second stage of perception is meant to show that the acquiring of belief in perception is open to the analysis of mental states as states apt for the production of certain physical behaviour. For now we will discuss perception as the acquiring of belief (the first stage).

Perception, bodily sensation and introspection are all fundamentally the acquiring of beliefs about the current state of the environment, our body and our minds. Perception has a biological function and according to Armstrong (1968: 209) the purpose of this biological function “is to give the organism information about the current state of its own body and its physical environment, information that will assist the organism in the conduct of life.” As I have mentioned Armstrong argues that perception is nothing more than acquiring beliefs, beliefs about the current state of our environment⁴, but the problem is that belief is such a complicated notion. Belief is considered to be found in humans and some mammals, but perception occurs in lower organisms such as ants. It does not seem appropriate to infer that such lower organisms have

⁴ The environment here should be understood to include our own body.

belief. So, Armstrong uses the word ‘information’ as alternative to ‘belief’. If perception is the acquiring of information or beliefs,⁵ then it involves the acquiring of true or false beliefs of the organism’s environment. According to Armstrong, veridical perception is the acquiring of true beliefs and sensory illusion is the acquiring of false beliefs. Armstrong would like us to think of perception as the acquiring of beliefs or information where the two words are identical but can be used inter-changeably. One advantage is that we can speak of sensory illusion as misinformation.

With regard to a sense-organ and perception: the event involves the stimulation of a portion of our body which in turn produces a variety of perceptions. Armstrong states that it is also often a part of our body that we will to move with the object of perceiving what is going on in our environment (including our body). Here it is important to note that not all perceptions arise out of use as opposed to stimulation of our sense-organs.

Armstrong explains the complex relation between belief and perception. Armstrong argues that belief is a dispositional state, but perception is a mental event as opposed to a process or state. According to Armstrong (1968: 214), “Belief is a dispositional state of mind which endures for a greater or lesser length of time, and that may or may not manifest itself (either in consciousness or in behaviour) during that time. But perceptions are definite events that take place at definite instants and are then over.” This insight clarifies that perceptions are not beliefs but are rather the acquiring of beliefs. And Armstrong states that the acquiring of a belief in perception is an event. Here perception is an ‘event’ in the sense that it is not a process that happens to occupy a very

⁵ I will continue to talk about beliefs although this can be understood more generally as about information given the point I have just made about lower organisms.

short stretch of time. Armstrong (1968: 214) explains it as an event in the way that “If a glass becomes brittle at t_1 , that is an event even although brittleness is a dispositional state.”

Many perceptions involve the outcome of purposive activity in particular activity involving the use of sense-organs as opposed to passive stimulation of sense-organs. But some perceptions occur without us having to bring them about.

Perception without belief

There are cases where perception occurs without the acquiring of true or false beliefs. For instance, if I look at a red book I am sure that the book will remain the same colour within the next instant. So I cannot be said to acquire a new belief about the colour of the book since I already believe that the book is red. This is an example of perception without acquiring of belief. Armstrong argues that there is another case where we can have perception without belief. This case of perception without belief happens when our perceptions do not correspond to physical reality, but we fail to acquire false beliefs.

In cases where perceptions without belief occur, we may still have an inclination to believe our senses. Sometimes things may seem a particular way and we may half believe or be inclined to believe that it is that way even though we have independent reasons to think that it is not as it seems. But this is not a problem in a case of perception without belief because our senses lead us to be disposed to acquire certain beliefs about the world, but these beliefs are overpowered by stronger beliefs that we already possess. In the case of perception without belief, Armstrong argues that an event still occurs in our mind, but this event does not involve the acquiring of new beliefs but rather the asserting of an old belief. We come to a state that is a belief-like state but

for the inhibiting of other contrary beliefs. This we can call the acquiring of potential belief. Introspective awareness of this sort of perception would be awareness of the acquiring of potential belief.

It may be objected that perception is something more than Armstrong's analysis allows - that this analysis does not pertain to the essence of perceptual experiences (that they should involve either belief or potential belief). In response to this objection Armstrong explains that it is a matter of how we would describe such perceptions. This sort of perceptions would be like the acquiring of belief or potential belief. What Armstrong means by 'like' here is that it is an 'idle' perception.

Perception without acquiring of belief may also be an event where information is duplicated.

This sort of perception is one where it would have been an acquiring of a belief had there not been a belief already acquired. If it seems that this sort of perception may not seem true for a perceptual event then it is an 'idle' perception. It is helpful to think of perception as the acquiring of true or false information when considering 'perception without belief' and 'perception without the acquiring of belief'. Armstrong explains that there is nothing peculiar about beliefs being indeterminate. For instance, one may believe that there are a number of stars in the universe yet not have a belief of their exact number. My belief would be indeterminate in that respect.

Introspective awareness of our perceptions involves a flood of mental events. First, it involves the acquiring of beliefs about the current state of our environment or events that resemble such acquirings. Being introspectively aware of our perceptions involves being aware of many such mental events. Armstrong (1968: 245) describes perception as a "flow of information [...] that is not completely unconscious". We are sometimes conscious or introspectively aware of our

perceptions when we have perceptual experience. And the content of our perceptions is the content of the beliefs involved. Our perceptions should not be thought of as something that stands between our mind and physical reality. Our perceptions are the apprehensions of our physical reality.

Perceiving things and perceiving that

There are two idioms that are associated with a particular picture of the nature of perception. The first is speaking of perception as perceiving things, events or processes. For example, seeing a chair. The other way we speak of perception is perceiving that something is the case. For example, seeing that there is a chair in front of us. The former may seem to present a problem. Speaking of ‘seeing a chair’ implies that there is a chair to be perceived. The phrase that has the form ‘A perceives x’ has existence grammar but this does not guarantee or entail that it is a chair. For the latter, the phrase of the form ‘A perceives that x’ implies that there is a chair there to be perceived and this fits in well with the analysis of perception as the acquiring of beliefs. When speaking of ‘seeing that’ it is implied that the belief acquired is true.

Each idiom has a corresponding account of perception. The corresponding account of perception for the first idiom is called the searchlight view of perception. Armstrong (1968; 227) states that according to this view, “[...] perception is an act that lights up for the perceiver a particular finite portion of the world, or, at any rate, certain aspects of a portion of the world. Perception is a two-term relation holding between the mind and a portion of physical reality”. The account corresponding to the second idiom is called information-flow view of perception. This view is

being developed by Armstrong (1968; 228) when he states that it “agrees with Direct Realism in being a two-term theory: there is simply the belief and the physical situation that corresponds, or fails to correspond, to the belief.” Armstrong notes that both ways of speaking of perceptions matter if we are to have effective communication with different sorts of people about our perceptions and that is because information and perception vary from person to person.

Perception and causality

With regards to perception and causality, the state involved is a state of a person apt for being brought about by certain physical causes. The link between causation and perception is demonstrated in this statement. To talk about perception is to talk about an internal state that is brought about in a certain way.

Unconscious perception

Armstrong argues that any mental happenings could occur without us being aware. It follows that there can be perceptions we call unconscious perceptions. One example of an unconscious perception would be when in deep thought about something I happen to stare at the wall without being aware that there is a dot on the wall until later when I am asked what was on the wall and to my surprise I find that I know. It is natural to say that although I was not aware of the dot on the wall at the time, I actually perceived it. In a case like this I was not aware of the acquiring of a belief but I later become aware that I had acquired a belief about what was on the wall. There is a case where deeper unconsciousness is present such as unconsciously stepping over a log while in deep conversation. In both cases mentioned there was potential consciousness present. There are also cases of perception where there is not even a potential object of introspective awareness,

these sorts of cases are classified as subliminal perception. An example of this would be when a message light flashes on a screen but it happens too fast to have been seen consciously.

Small perceptions

Armstrong states that the majority of our perceptions consist of what he calls small perceptions. Earlier Armstrong argued that perceptions involve the acquiring of beliefs, however, these small perceptions do not fit this definition. Armstrong argues that we may want to describe small perceptions as something less than the acquiring of beliefs because with small perceptions, in the event of a perception occurring, a new state comes about but this state disappears so fast that we may be hesitant to call it a state of belief. The state is gone too soon for there to be a manifestation of belief. According to Armstrong a small perception is when we acquire a certain state that doesn't last for a long time but if it did, it would be a belief about our environment and the current state of our body.

Immediate and mediate perception

Armstrong draws a distinction between immediate and mediate perception. Both these kinds of perception are of the perceiving that something is the case kind: we could call it 'perceiving that...' (Armstrong, 1968: 227). This distinction can be drawn in terms of acquiring beliefs. Some perceptions involve no inference and this sort of 'perceiving that' is known as immediate perception (Armstrong, 1968: 227). Immediate perception involves beliefs that are acquired by

means of the eyes. For instance, when I see a cat peeking his head from around the door and I say “there is a cat’s head over there” (Armstrong, 1968: 234). All other perceptions (such as hearing a sound and inferring its cause) that include inference may be called mediate perceptions.

2.3 Similarities between introspection and perception

This section will discuss the similarities between introspection and perception in order for us to understand Armstrong’s account of introspection. Let us begin with the one way in which introspection and perception are alike. When dealing with introspection and perception, we need to distinguish between two things; namely, the thing introspected or perceived and the introspecting or the perceiving. It is clear-cut by this comparison that we can easily be misled when dealing with the thing that’s introspected and introspecting itself since both components belong to the same mind. To say that I have introspected that James is thinking of a pain is to get the meaning of introspection totally wrong because introspection can only take place in one mind, and in this instance introspection is different from sense-perception. It is plausible to say that two different minds can perceive the same physical object but we cannot apply the same case to introspection. This is partly because introspection is an inner sense, as acknowledged by Armstrong. The physical world is available to various minds that are able to perceive it but a mind can only be introspected by the same mind. You and I can perceive the same object but you

and I cannot introspect the same mental state. It makes sense to then talk of my thoughts as private mental states. Nevertheless, the thing being introspected and the introspecting cannot be the same mental state otherwise this leads to an infinite regress.

Let us discuss the role of language. Armstrong notes that language can play a role in our perceptions and so by implication, language also plays a role in introspection. But neither perception nor introspection are logically dependent on language. Introspection does not logically demand the making of introspective reports or having the power of making them. It surely seems plausible that we can be introspectively aware of our thoughts but need not produce any reports or we may have mental states but need not be introspective of other mental states at the time. So there is a distinction we can make between the introspective ability and the power of language – language (in the case of making reports) need not accompany introspection.

Armstrong argues that just like introspection, bodily perceptions are private. Armstrong states that this privacy is purely empirical since we can imagine having the same direct perceptual access to other people's bodies like we have of our own. The same goes for introspection, we can imagine direct access to the current states of the minds of others, even though we do not actually ever experience that.

The following similarity between introspection and perception concerns the unawareness or awareness of mental states. In this case it seems like consciousness and introspection have some sort of relation to one another here which is awareness. It is plausible to say that, when we perceive, there are some things that we do not perceive, and some things that are marginally

perceived or are in the ‘twilight zone’⁶ as Armstrong puts it (Armstrong, 1968: 326). Likewise with introspection, when we are aware of some mental states, there are some other mental states that we may not be aware of (at that time). So, we can talk of conscious and unconscious and perhaps even semi-conscious mental states. Unconscious and conscious mental states form part of the same mind in which we can introspect. Of course, those mental states that are unconscious cannot be introspected qua unconscious mental states. To introspect we need to be aware of our own mental states and to be aware of them then we need to have mental states that are conscious.

Armstrong states that both introspection and perception can be erroneous. Armstrong adds that just because introspection can be erroneous, it does not mean that introspective awareness cannot regularly satisfy the conditions for knowledge. In fact, introspection (like perception) involves the getting of information and misinformation, in this case about the current state of our mind. In other words, it is the acquiring of beliefs or dispositions to believe, just as with sense perception. Without information of some sort about the current state of our mind, purposive trains of mental activity would be impossible. Whether these beliefs are erroneous or not is a different matter. The matter here, however, is that it is better to conceive introspection as well as perception as a mere flow of information or formation of beliefs rather than as an acquaintance with mental states (as in the classical model).

Armstrong reveals another similarity between perception and introspection in terms of belief by his response to an objection. The objection is that although there is perception without acquiring of beliefs, there is no parallel happening of introspection without belief. Armstrong notes that we

⁶ This is Armstrong's term for some things that we do not perceive whilst perceiving other things.

may not have introspective awareness without belief in parallel occurrence with perception without belief. But he asserts that we can have the introspection without acquiring belief. For I could be directly aware that I am angry and know that my anger will last for some while so when, an instant later, I am aware of my current anger, I have not acquired any belief that I am angry now (Armstrong 1968: 329).

Armstrong further contends with a different yet closely connected similarity that there is one phenomenon in our mental life that can be understood as involving images, specifically introspective images that stands to introspection as mental images stand to perceptions. For instance, when we see plays performed. I may feel pity for the character but I do not merely think that the character is to be pitied. I am aware of a mental state that resembles pity, yet I do not pity anybody and I know this. Thus, it seems plausible to say that my mental state stands to an introspective awareness of real pity as much as mental images stand to perception.

In addition to these features of introspection, Armstrong argues against another objection. Now, Armstrong has argued for features of introspection as resembling perception. He contends that we can, by inference, perceive whether or not someone else perceives something and whether or not they are aware of their perception. So we can perceive whether a person is in a certain mental state, e.g., that he is angry. Since introspection is supposed to be direct and not inferential, we can provide a parallel case to perception by constructing an imaginary case like that of telepathy (as above). We could also have a case where unwelcome information dawns upon me and I realize that a part of my mind had rejected this information, yet another part of my mind accepts this information. Armstrong refers to this as split consciousness.

So far we have discussed objections regarding the similarities between introspection and perception as Armstrong has outlined in his theory of the mind. To round off our discussion of introspection I briefly discuss introspection and behaviour. Introspection should be understood as the acquiring of information about current states of ourselves apt for the production of certain behaviour (Armstrong, 1968). Introspective awareness should be distinguished as a distinct mental state which is not only an awareness of a mental state but is a mental event which is apt for a certain sort of selection behaviour towards ourselves. Armstrong points out that we can only be convinced that a person has the capacity for introspective discriminations if we consider a sort of behaviour. A person would need the following in order to acquire the capacity for introspective discrimination. I will use his example of introspecting that we are angry; (1) We must exhibit a capacity to behave towards ourselves in a systematically different way when we are angry and when we are not angry, (2) we must have the capacity to discriminate systematically between angry behaviour and non-angry behaviour in ourselves and others, and (3) we must exhibit the capacity to link the original discrimination with angry behaviour. In sum, Armstrong provides an account of the introspective acquiring of information about our own mental states as an acquiring of a capacity for certain sorts of behaviour, in line with his general model of the mind.

I would like to make the notion of mental states much clearer in a way that connects with the previous explanation of introspection. Armstrong points out that we need not follow the Cartesian dualist to have a concept of the mind or mental events. All that the term 'inner sense' means is an occurrence of individual mental happenings. Armstrong suggests that the notion of the mind can be conceived as a theoretical concept or at least as something that is postulated to

link together all the individual happenings of which introspection makes us aware. In speaking of minds, using the word 'I' seems to go beyond introspective reports. Thus according to Armstrong (1968:337), ordinary language seems to embody a certain theory here as he notes:

Introspection makes us aware of a series of happenings apt for the production of certain sorts of behaviour in the one body. In a being without language, it may be presumed that introspection goes no further than this. Beings with language go on to form the notion that all these states are states of a single substance. This postulated substance is called 'the mind'.

2.4 Conclusion

This far I have discussed Armstrong's theory of the mind with particular attention to consciousness and introspection. Now that we have had a detailed look Armstrong's account of consciousness and introspection we are in a position to see how Armstrong may be able to respond to Libet's challenge. In the following chapter I discuss whether Armstrong can cope with Libet's challenge and whether the Armstrongian response is an acceptable one.

Chapter 3

Can Armstrong cope with Libet's challenge?

Now that I have discussed Libet's challenge, factors surrounding Libet's challenge and outlined Armstrong's theory of the mind, I am in a position to discuss how Armstrong might cope with that challenge. To recap, Libet has challenged our ordinary conception of voluntary action with the claim that our voluntary actions are not the causal result of our conscious intentions. Libet's experiments seem to show that our supposedly voluntary actions are rather the result of unconscious brain activities. Earlier I said that Armstrong might be able to cope with Libet's challenge since Armstrong's account of introspection and consciousness uses higher order states. This chapter will focus more closely on how Armstrong's theory of the mind and, more particularly, how Armstrong's account of introspection and consciousness might cope with Libet's challenge.

At first sight it seems that Armstrong may be able to cope with Libet's challenge to our ordinary conception of voluntary action. Libet suggests that we become conscious of our intention to act only some time after our brain has already initiated the act. This suggestion does seem to threaten our ordinary conception of voluntary action since we view voluntary action as something that is initiated consciously before the act is performed. However, this poses less of an obvious threat if we understand introspection and consciousness in Armstrong's terms.

Armstrong's understanding of mental states is of particular importance in the process of investigating an Armstrongian response to Libet's challenge. Armstrong (1968: 82) defines a mental state as "a state of the person apt for bringing about a certain sort of behaviour" which means that mental states are states that are the sorts of thing that are responsible for causing behaviour. On this definition, even though mental states are typically responsible for causing behaviour it does not mean that mental states would always be causal when present in the mind. According to Armstrong, mental states can be actual occurrences in our mind that lead to no behaviour. Even though a mental state has a typical role in the cause of behaviour, its sole purpose is not merely the cause of behaviour since mental states can be occurrences without causing behaviour. This is how Armstrong wants to characterize all mental states. In addition mental states do not only have a relationship with behaviour but also with each other. This is especially important when it comes to introspection and consciousness. For Armstrong, introspection and consciousness are two special kinds of mental state; they have characteristics that no other mental state has. A mental state is conscious when there is another mental state which has the first state as its object. Introspection is in turn awareness of conscious states - that is, a state which has a conscious state as its object. In other words, it is a third-order state.

I outlined this earlier, but what does this mean for Libet's threat to our ordinary conception of voluntary action? If consciousness is a mental state that is about an ordinary mental state then this may explain why we become conscious of our intention to act only after it has initiated the voluntary action. That is, Libet's experiments seem to presume our voluntary actions are initiated by our brain but this can be understood on the Armstrongian model that our intentions initiate our voluntary actions but we only report awareness of these intentions at a later stage. I have a look at intentions and conscious intentions below.

3.1 Intentions and conscious intentions

If we understand Libet's experiments in Armstrong's terms then we would understand that it is expected that we become aware of our intentions at a later stage. To make this clearer, I will briefly distinguish between intention and conscious intention. Some theorists define intention as a special kind of belief (Mele, 2009; Mele, 1989). Some philosophers indirectly define intention as a mental state that represents a commitment to carrying out an action or actions in the future (Holton, 2009). In other words, the purpose of an intention seems to be goal orientated. There is nothing in these accounts that requires intentions to be always conscious states. Someone can be committed to carrying out an action without being aware of that commitment, at least, without being constantly aware of it. Richard Holton (2009: chapter 5) outlines how intentions, once formed, are best ignored and kept out of consciousness if they are to be effective.

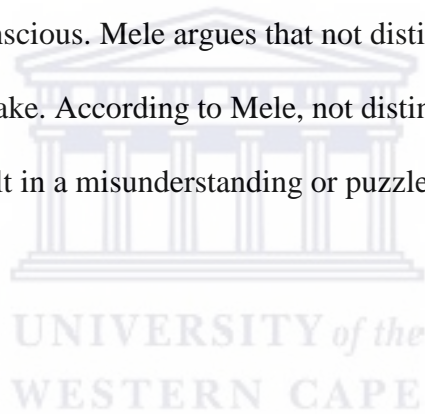
But then what is a conscious intention? According to Armstrong, for an intention to be conscious, it must come under the internal scanner he envisages and another state must be formed about the intention. For Armstrong, to have a conscious intention is to be aware of an

intention, such that the intention is the object of an act of awareness that is directed at it. If we look at conscious intention in this way it does not seem to pose an obvious threat to our free will and our voluntary actions. If having a conscious intention means to become aware of an intention in the sense that the intention is the object of an act of awareness, then it follows that an Armstrongian second-order state (making that state a conscious state) will be formed after the intention itself.

Libet's study seems to show that brains unconsciously make decisions that people later on become aware of but actually these brain activities are just ordinary mental states – like intentions - that occur before our secondary mental states occur (the awareness of the first order state). In Libet's experiment he asks subjects to report (or indicate) when they become aware of a conscious intention when he asks them to note when they first became aware of their intention/urge to press the button or flex their wrist. That is, Libet asks the subjects to introspect - this is a complex task, especially according to Armstrong. Since introspection on Armstrong's account is awareness of a second-order state – that is, a third-order state -- the time taken for subjects to report this no longer seems so obviously threatening to our free action. On the Armstrong model, the willings that occur are the brain activities and what occurs later is the inner perception of that state. Libet's idea is that our conscious willing occurs only after our brain activities and Armstrong can cope with Libet because for Armstrong this is the picture that we should expect to see if we understand consciousness as involving a second-order state.

If Armstrong's account of consciousness and introspection is correct, then it should be no surprise that Libet has found that our consciousness of our conscious willings arrives only after

actions have already been neurally initiated. However, we must be careful not to confuse introspection with ordinary consciousness of mental states. Consciousness occurs before introspection – recall that consciousness is a second-order state that is about other states, namely states about first-order states. The work that introspection is doing here occurs only after we are conscious of our first-order states. If consciousness is a second-order state, then of course we would expect our brain activities⁷ to precede consciousness. Conscious intentions are causally different from unconscious ones, but both are states apt for bringing about behaviour. For Armstrong, every difference is a causal difference. Libet's criticism rests on a Cartesian view in that he assumes that brain states are not mental ones if they are not conscious states. Libet thinks that all mental states must be conscious. Mele argues that not distinguishing conscious from non-conscious mental states is a mistake. According to Mele, not distinguishing between unconscious and conscious mental states result in a misunderstanding or puzzlement on the part of the reader and of one's own data.



⁷ What Libet classifies as brain activities (non-mental states) is just ordinary mental states for Armstrong.

Chapter 4

Higher-order theories and their problems

A higher-order theory of consciousness is a theory which makes the claim that consciousness consists of perceptions or thoughts about first-order states (Carruthers, 2016). As mentioned, Armstrong's theory is a higher-order theory of consciousness. This section will have a look at what a higher-order theory entails, but more importantly, we will have a look at possible objections to higher-order theories that might affect an Armstrongian response to Libet and possible ways to cope with these objections.

4. 1 Some details on higher-order theories of consciousness

Higher-order theories of consciousness explicate consciousness in terms of the connection between a conscious state and a representation of that state (either a higher-order perception of that state or a higher-order thought/belief about that state) (Carruthers, 2016). In other words, the first-order state is conscious because of the presence of a higher-order state. Interestingly enough, the main motivation behind higher-order theories of consciousness is derived from the

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belief that most mental state types have both conscious and unconscious varieties. Although it was commonplace among the early modern philosophers like Descartes and Locke that all mental states were conscious, this view is no longer as plausible as it once seemed, certainly not since the work of Freud. Post-Cartesian philosophers, like Armstrong, developed theories that explain the presence of unconscious and conscious mental states. In this section I will have a look at different kinds of objections, namely; an historical objection to higher order theories in general, contemporary objections to higher order theories which include objections to the inner sense theory in particular, and specific objections to the Armstrongian response to Libet.

4. 2 Historical Objection

Theories of consciousness date back all the way to the seventeenth century (Weinberg, 2016). Descartes was one of the first philosophers to use the term ‘consciousness’ as opposed to ‘conscience’ which was in common use (Weinberg, 2016). Following Descartes in giving consciousness philosophical meaning were Cudworth and Locke - they gave this meaning in the English language (Weinberg, 2016: 3-4). The Cartesian meaning of consciousness involves immediate self-awareness that is to be distinguished from bodily sensation (Weinberg, 2016). That is, Descartes thought of consciousness as something that is not like our perceptions. For Descartes, all our mental states are conscious and cannot be doubted unlike the information provided by our outer senses. Hobbes identifies an issue in early modern theories like Descartes’ that would also be a problem for higher-order theories. Hobbes’s objection is that higher order theories suffer an infinite regress. The infinite regress is that if a state is conscious only in virtue of another mental state, and all mental states are conscious, then all mental states require a

further mental state, and this will never end. The problem comes in when consciousness is understood as a separate reflexive act of the mind directed towards a person's own mental states. But as long as the theory does not portray *all* mental states as being conscious then there seems to be no regress problem. Weinberg does not seem to offer a solution to the infinite regress problem since she is only interested in Locke, who accepts the claim that all mental states are conscious but holds a first-order theory. Hobbes's objection does not seem to be a problem for Armstrong's theory or for the contemporary common-sense view because both Armstrong's account and the common sense view of consciousness do not accept the claim that all mental states are conscious.

Libet measures when subjects become consciously aware of intentions. Libet writes, “[The subject] was asked to perform a freely voluntary act, a simple sudden flexion of the wrist at any time he felt like doing so. [...] He was also asked to associate his first awareness of his intention or wish to move with the “clock position” of the revolving light spot. That associated clock time was reported by the subject after completion of the trial.” (*Libet, 2004:126*) Libet takes the willing to exist only when the subject is conscious of it - the subject is asked to report his “associated awareness of his intention” (Libet, 2004, 126). So the historic objection, made by Hobbes, does not affect Armstrong's theory since he (sensibly) denies the Cartesian view that all mental events are conscious. Moreover, even though Libet seems to have a Cartesian view of intentions, it seems that this objection would not affect the Armstrongian response to Libet's challenge.

4. 3 Creature consciousness and state consciousness

I will be drawing all information about kinds of consciousness, which includes all the sections that follow, from Carruthers (2016). Carruthers provides the best overview of the relevant theories and objections in the literature and it will be enough to provide an understanding of the objections I will be concerned with. There is usually a distinction made between two kinds of consciousness in order to isolate the kind of consciousness higher-order theories try to explain. The first is known as creature consciousness and the second known is as state consciousness - for Armstrong there is a further distinction involving introspective consciousness. Creature consciousness is the kind of consciousness when one is awake and sentient or aware of something, whereas state consciousness is when one's mental state is a conscious one. State consciousness seems to be a property of mental states but creature consciousness seems to be a biological feature that is more straightforward. A conscious state involves 'feeling' how it is to be in that state (Baars, 1988 & Dennett, 1993, Dennett & Savage, 1978). Recall that earlier on I mentioned that according to Armstrong introspective consciousness is when one pays attention to one's own mental states. For Armstrong's theory and some other higher-order theories of consciousness a conscious state is different to introspective consciousness.

Some higher-order theorists, like Armstrong, argue that consciousness does not only involve conscious representations or presentations of something (i.e., events, things, or facts in the world), it also involves a conscious manifestation for the subject. Anonymity of consciousness is the theory that denies that consciousness involves conscious manifestation for the subject (Fulford, Davies, Gipps, Graham, Sadler, Stanghellini & Thornton, 2013). For some higher-order theorists, the anonymity of consciousness is set in the nature of conscious states but the anonymity can be explained in terms of higher-order representation. My mental state is

conscious – the sort of conscious state defined above – when I have a higher-order representation about it.

4. 4 Transitive and intransitive consciousness

Besides the distinction that is made between creature consciousness and state consciousness there is one more distinction that needs to be made to avoid any confusion. We usually think of consciousness as a mental state where we are aware or conscious of. This common view of consciousness utilizes different uses of the word ‘aware’. One is known as intransitive because this form of consciousness has no object or target. An intransitive form of consciousness would be state consciousness. Another is known as transitive form of consciousness – that is, it is a form of consciousness that takes the state as its object or target. A transitive form of consciousness is introspective consciousness because it takes mental states as objects. It is important that we define transitive and intransitive consciousness here since some higher-order theories make use of these kinds of consciousness as we will see below.

4. 5 Mental-state Consciousness (Phenomenal Consciousness and Access Consciousness)

As well as the conceptual distinctions just made, it seems as though the most important concepts to characterize are those of phenomenal and access consciousness. This distinction is one of the most challenging properties to explain. Very different concepts are sometimes treated as a single concept and Ned Block (1995) thinks that we tend to make this mistake with consciousness. Thus, he makes the distinction between these two kinds of mental state consciousness.

According to Block, we can distinguish between the different properties of these two kinds of consciousness. Phenomenal properties of consciousness are experiential and are different to intentional or functional properties of consciousness; they are the properties concerned when we see, hear or feel pain. Phenomenal consciousness is the kind of state that has a distinctive feel – it is like something to be in that state. There is a difference of opinion whether mental states can be phenomenally conscious without being functionally-definable conscious. Some higher-order theorists see access consciousness as more of a functionally-definable form than phenomenal consciousness. Armstrong among other higher-order theorists thinks that access consciousness has a relevant requirement, that is, that the state should be well related to higher-order representations (beliefs and/or experiences) of that state. There does not seem to be much of a consensus about the difference between access consciousness and phenomenal consciousness. Since higher-order theories of consciousness try to explain the nature of consciousness it seems the central problem with higher-order theories of consciousness is the issue in explaining the common feature that all conscious states share, which brings me to the next point - defining phenomenal consciousness.

4. 6 Defining Phenomenal Consciousness

What is the difference between a conscious and an unconscious state? Why is there something that it is like to be in a conscious state but there seems to be nothing that it is like to be in an unconscious state? The simple answer would be to say that a conscious state is one where the subject is aware, but that still does not explain why there is nothing it is like to be unaware. Higher-order theories of consciousness suggest that a mental state is conscious when there is a

higher-order state – a thought or perception – about it. If this is right, then does this mean that when there is no higher-order state there is no conscious state? Higher-order theorists agree that the relevant difference involves the presence of something higher-order in the first case that is absent in the second. The core consensus is that a phenomenal conscious state is a state where the subject is aware. So, in general, according to Carruthers (2016: 10) higher-order theories of consciousness claim the following:

Higher Order Theory (In General): A phenomenally conscious mental state is a mental state (of a certain sort) that either is, or is disposed to be the object of a higher-order representation of a certain sort.

It is clear from the above definition that phenomenal consciousness has to involve a higher-order state. Before we continue into possible objections to higher-order theories of consciousness it will be useful to consider what type of higher-order theory Armstrong proposes as there are various higher-order theories such as Actualist higher-order thought theory, Dispositionalist higher-order thought theory, self-representational higher-order theory and higher-order perception theory, the details of which will only concern me when relevant to assessing Armstrong's theory in the context of the response to Libet. As this chapter develops, I will look at a number of objections. Let us first go into detail of the kind of theory Armstrong proposes which I discuss below.

4. 7 Armstrong's inner sense higher-order theory

When I discuss Armstrong's theory as an inner sense theory I do not mean that it is different to his Central State Materialism theory. Armstrong's Central State Materialist theory of consciousness is characterized as an inner sense higher-order theory. It should also be noted that

since this section will mostly discuss the inner-sense theory, also known as the perception theory, this is not the only form of higher-order theory, as I have mentioned above. I will introduce the different higher-order theories at a later stage so that the reader is able to distinguish the relevant difference of Armstrong's higher-order theory especially when it comes to objections.

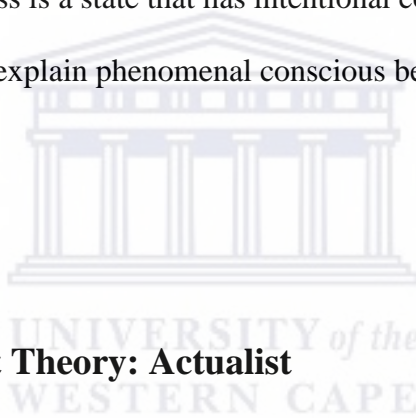
Arguably, the higher-order perception theory is the first higher-order account of consciousness tracing back to John Locke (1690) and his inner sense theory. However, Armstrong is only following Locke in taking up the notion of the inner sense and Armstrong is using it differently from Locke himself. Armstrong aims to show how consciousness can be explained in terms of an inner sense and other mental states. Armstrong and Locke do not share the same ideas about consciousness. Locke's inner sense theory is a first-order theory whereas Armstrong's inner sense theory is a higher-order theory. One advantage of the inner sense theory seems to be in the key to explaining phenomenal consciousness. Locke distinguishes two ways of acquiring knowledge, namely, perception and reflection. Armstrong talks about more than just reflection and perception, he distinguishes between consciousness and introspection in relation to other mental states.

Armstrong's higher-order theory includes the idea that our mental states are conscious when internal scanners produce perceptual representations of them. Like higher-order thought theory, state consciousness is explained here in terms of higher-order representations of mental states. On both forms of theory my knee pain is conscious when I acquire a higher-order representation about the pain. Unlike higher-order thought theory, the higher-order representation is like perceptual representation on the inner sense account. One point in favour of the higher-order

perception account is its ability to accommodate the rich detail of conscious states. Additionally, no special conceptual powers are required to produce higher-order perceptions, so there is no reason animals could not be conscious on this view. This is where objections start to come in. Before moving on to introducing the other forms of higher-order theories we can see that the following sums up the inner-sense theory according to Carruthers (2016: 13):

A phenomenally conscious mental state is a state with analog/non-conceptual intentional content, which is in turn the target of a higher-order analog/non-conceptual intentional state, via the operations of a faculty of ‘inner-sense’.

The idea is that phenomenal consciousness is a state known by the inner sense on Armstrong’s theory. Phenomenal consciousness is a state that has intentional content on Armstrong’s account. The inner sense theory seems to explain phenomenal conscious best. Below I have a look at the other higher-order theories.



4. 8 Higher-order Thought Theory: Actualist

Later in this discussion I will be looking at various objections to higher-order theories in general. Thus, it will be important for us to know the different versions of higher-order theories. I have already had a look at the main higher-order theory in this discussion, that is, the inner sense higher-order theory. I have mentioned the different versions of the higher-order theories, what remains is for me to introduce them. There are two main features that distinguishes higher-order theories: Armstrong’s inner sense theory argues that higher-order states are perception-like whereas higher-order thought theorists argue that higher-order states are belief-like. This brings

us to the introduction of a version of the higher-order thought theory known as the Actualist theory.

The Actualist higher-order thought theory is about the nature of state-consciousness where phenomenal consciousness is but one counterpart. Rosenthal (1986 & 2005) is the main developer of this theory. The Actualist higher-order thought theory reduces phenomenal consciousness to analog/non-conceptual contents. In contrast, Armstrong's inner sense theory characterizes phenomenal consciousness as a state with analog/non-conceptual intentional content. The Actualist higher-order thought theory holds that a conscious mental state causes an activated belief, that is generally non-conscious, and which causes that thought non-inferentially. On this account, to count as experience (i.e., a state with an analog content), a mental state must have a causal role and/or content of a certain distinctive sort and when this mental state is an experience then it will be phenomenally conscious – but only when suitably targeted.

Rosenthal (2005) argues that when a suitably higher-order thought occurs, even if it is not targeted, it is sufficient for consciousness. An example of this would be if I am undergoing a conscious experience of eating an apple, this experience is conscious provided that I believe that I am undergoing an experience of eating an apple even if I have no first-order state targeted. The claim Rosenthal makes here is optional to other Actualist higher-order theorists. This claim is interesting because it does not seem to fit in the higher-order theory since the claim is not for the need of a first-order state and as a higher-order theory, it needs other level states. But this issue is not one that will affect my project, I am merely mentioning it so that the reader can distinguish

between the different higher-order theories and how Armstrong's higher-order theory is different from others.

For the actualist higher-order thought theory, conscious perceptions are analog states that are targeted by a higher-order thought but perceptions like the kind involved in blind sight are unconscious, the latter being unconscious by not being targeted in the way the former is. The difference between inner sense higher-order theory and Actualist higher-order thought theory lies in the fact that the Actualist higher-order thought theory can avoid some difficulties and/or objections raised at the inner sense higher-order theory. One main objection that is avoided is the evolutionary problem (see objection three below) although this objection does not seem to be much of an issue for the Armstrongian response to Libet's challenge. It is easier to explain the evolution of higher-order thoughts than it is to explain the evolution of the inner-sense.

Nevertheless, I will have a look at whether Armstrong's inner sense theory is not able to cope with this sort of objection in a way that the Actualist higher-order theory seems to be able to cope. I will discuss this in the section of the objection called the evolutionary problem. The actualist theory is not the only version of the higher-order thought theory, the other version is known as the dispositionalist theory which I discuss below.

4. 9 Higher-order Thought Theory: Dispositionalist

The higher-order thought theory on the dispositionalist account suggests that higher-order thoughts that render a percept conscious are potential instead of actual. In other words, according to this form of higher-order thought theory, it is not necessary to have a higher-order thought present for a perceptual state to be rendered as phenomenally conscious.

This version of the higher-order thought theory suggests that the relevant thoughts function as dispositions. This means that mental states are conscious when they are available to a higher-order thought even when no actual higher-order thought will occur. Rosenthal disagrees with the dispositional account as he argues that for a state to be conscious, a higher-order thought must actually occur. Rosenthal stresses that simply having a mental state or thought about something does not mean that it will result in consciousness. I share the same intuition with Rosenthal here and it seems as though Armstrong would agree to this claim too. On the other hand, Carruthers argues in defence of this account by arguing that two perceptual structures exist; one is primarily action guiding and works with unconscious perceptual states whereas the second perceptual system generates beliefs about perceptual information. An example of the first perceptual structure would be in the case that when I have an ear ache I might hold my hand over my ear even if I did not realize that I was covering my ear. The second perceptual state does the work of carrying information about the pain and the experience of the pain. Carruthers appeals to the state's intentional content in the way that the state depends in part on what other mental states it is disposed to cause. But even for Carruthers, all states that are even disposed to cause an actual higher-order thought could be conscious. Therefore, it seems that all potentially conscious states will be conscious on this dispositional position.

4. 10 Possible problems with Armstrong's theory 1 – The inner sense objection

4. 10 .1 Objection One; the lack of higher-order phenomenology objection:

Now that I have provided a background to the various higher-order theories and placed Armstrong's inner sense theory in this context, we are able to have a look at some of the objections directed at the inner sense theory. The first objection to the inner sense theory concerns the following: each of the outer senses (first-order experiences) gives rise to a distinctive set of phenomenological properties, but there do not appear to be any of these properties for inner sense. So the objection raised by Dretske (1995) is that if there were such a thing as inner sense, then there would or should also be a phenomenology distinctive of its operation. The phenomenology of our outer senses would be something like what it is to taste or the experience of touching (Lyons, 1986). However, with introspecting, the experience of, say experiencing the colour green, is founded upon the first level experience which is the perceiving of the green grass. So the problem seems to be that there are no duplicate qualities with our outer senses as there is with our inner sense.

According to this objection there is a disanalogy between the inner and outer sense; the inner sense does not have its own phenomenal properties like the outer sense does. In response to this objection, inner sense theorists might want to deny the premise that the inner sense should have its own distinctive phenomenal properties. Inner sense theorists might also want to say that the objection is based on the view that outer perception has its own phenomenology. According to Lormand (1996), since many outer-sensory states are much more modest, given the “nonphenomenology” of perception it is hard to see how this objection stands. Lornard (1996: 3) adds a response to this objection:

One possible move for the inner sense theorist could be to claim that the sensory quality involved in second order perception is the same as the one involved in the first order state

being introspected. But the response is not ad hoc. It is the essence of any inner-sense theory of phenomenality. It appeals to a principle that is fundamental to inner-sense theories from the outset, and plausible on independent grounds of subliminal perception, blindsight, early-visual states, etc.—the Nonphenomenology of Perception.

I find this kind of response acceptable especially since the requirement for phenomenology of perception is unclear. But that need not worry us too much here. What we want to know is how this sort of objection would affect an Armstrongian response to Libet. Firstly, if this objection succeeds and there is no such thing as an inner sense then the Armstrongian response becomes weak in the sense that Libet's experiment would not make sense on Armstrong's account of consciousness and introspection. However, this objection does not seem to succeed as Lormand has pointed out, that is, that the nonphenomenology of perception is rife so it is possible and quite plausible for the inner sense to lack a distinctive phenomenology. An example of nonphenomenological perception would be to perceive an advertisement that flashes quickly between a movie break. It is plausible to see such an experience as nonphenomenological because such an experience has no distinctive feel to it.

4. 10. 2 Objection Two; the possibility of malfunction:

This objection to the inner sense theory (or high order perception theory) goes something like this: if there is an organ of inner sense, it should be possible for it to malfunction like any other organ can malfunction. Carruthers (2016: 16) says:

[I]t ought to be possible for someone to have a first-order percept with the analog content red causing a higher-order percept with the analog content seems-orange. Someone in this situation would be disposed to judge, 'It's red', immediately and non-inferentially (i.e. not

influenced by beliefs about the object's normal color or their own physical state). But at the same time they would be disposed to judge, 'It seems orange'. Not only does this sort of thing never apparently occur, but the idea that it might do so conflicts with a powerful intuition.

Naturally, we think of introspective judgments as judgments of our own thoughts that are commonly viewed as qualitatively better knowledge than the ordinary perceptual judgments we make about the external world. That is, our ordinary perceptual judgments can be mistaken without any malfunction on our part whereas our introspective judgments just seem to be immune to such errors. This is the point Carruthers is trying to make against the inner sense theory. I would like to decipher the difference between introspective judgments and perceptual judgments so as to illustrate the common intuition that Carruthers mentions. Introspective judgments, as I will understand them here, are higher-order judgments about the contents of lower-order states and have something like the form 'I am thinking that X' whereas perceptual judgments are judgments based on sensory experiences and have something like the form 'The palm tree is extremely tall from the ground'. It is easy to see how one might mistake one's judgment that the tree is taller than it might be, but with our introspective judgment it seems hard to believe that we would mistake what our awareness of our own mental state is.

It is difficult for some to see how an inner sense model like Armstrong's theory that explicitly draws a parallel between introspection to ordinary perception can account for a difference between introspective judgments and ordinary perceptual judgments in the sense that the former is free of errors and the latter is not. However, Armstrong need not account for a difference between introspective judgments and ordinary perceptual judgments because according to Armstrong the properties of introspection and perception are parallel to one another and nothing

less. For Armstrong, both introspective judgments and ordinary perception judgments *are* open to error. Armstrong points out that perceptual statements make claims about the physical world and such statements often have the possibility of being mistaken; he goes on to explain that introspective reports can also be mistaken on his account and argues for that (apparently counter-intuitive) point, as we have seen.

I must point out how crucial this objection is to Armstrong's theory; if this objection is true then Armstrong's theory fails. In other words, if Armstrong's theory cannot explain away the indubitability of our inner sense then it seems as though Libet's threat remains. Armstrong accepts that our awareness of our mental states should not be indubitable just like our perceptual experiences. Armstrong (1968: 103) in effect addresses this objection himself:

For can any knowledge of causes be incorrigible? Surely any statement that one thing is a cause, or potential cause, of another thing, however arrived at, is subject to the tests of future observation and experiment? And if it is so subject, how can it be incorrigible? So since our analysis of the concept of a mental state involves causation, if introspection knowledge is incorrigible, as is alleged, then our account of the concept of a mental state is untenable.

This is a very interesting claim Armstrong makes regarding the knowledge of causes. The claim is that knowledge of causes can be open to doubt or error since any potential cause is subject to future observation confirming it. Our perceptual knowledge is open to error and doubt because our senses can sometimes mislead us, like I explained with the example of the tall tree.

Armstrong makes a case that our introspective awareness is not indubitable but we will have to see if this case is sufficient. On that note we turn to how Armstrong may be able to cope with this objection in three ways: (1) 'The contradiction with Central-state Materialism', (2)

‘Arguments against indubitable introspective knowledge’ and (3) ‘Rejection of logical privileged access’ which I shall re-visit.

4. 10. 2 (a) - ‘The contradiction with Central-state Materialism’:

Armstrong acknowledges that an objection of this sort entails the falsity of his Central-state Materialism account. For Armstrong, if this objection is true then there is an important difference between introspection and perception - remember that Armstrong’s theory draws a similarity between introspection and perception. Armstrong explains the mental process involved in consciousness as a self-scanning process. Armstrong (1968:102) says: “If mental processes are states of the person apt for the bringing about of certain sorts of behaviour, and if these states are in fact physical states of the brain, then introspection itself, which is a mental process, will have to be a physical process in the brain.” The point here is that if these sorts of mental processes are physical processes then they must be a self-scanning process in the brain that can be understood as a mechanism. So it is always logically possible, as Armstrong points out, for such a self-scanning mechanism to result in an error since any sort of mechanism is capable of operational errors. Therefore, if introspective knowledge is indubitable, then Armstrong’s theory would be false. This is not Armstrong’s response to the objection, rather it is an acknowledgment of how strongly this objection affects Armstrong’s inner sense higher-order theory. Armstrong acknowledges that it is essential for him or any defender of such a theory to show that there can be no indubitable knowledge of or even logically privileged access to our mental states.

4. 10. 2 (b) - ‘Arguments against indubitable introspective knowledge’:

There are two similar arguments that seem to cast a doubt on the possibility of indubitable introspective knowledge. Both arguments involve the importance of timing but the first argument points to the fault in applying introspective awareness of our mental states to past mental states whereas the second argument points to the issue of how time relates to our introspective reports. Later on I will discuss how this argument might relate to Libet's challenge. However, for now I will start with the details of the first argument:

(i) Armstrong argues that if introspective knowledge is held to be indubitable, this cannot apply to past mental states. For instance, for a mental state to occur in the past, even if it is a fraction of a second in the past, it becomes possible for errors to occur in our introspective knowledge/awareness. According to Armstrong, two events that happen at different times should always be known as distinct instances, or rather, distinct existences. So if I thought that I was in pain, say a fraction of a second ago, then the pain and my thought would be distinct instances, even though the time gap is so small. And since the pain and my thought are distinct instances it must be logically possible for there to be no pain corresponding to my thought. This argument seems very strong until we consider the knowledge that I was in pain a fraction of a second ago in which case we cannot seem to imagine what it would be like to make a mistake in such a case. Therefore, one may hold that this case is logically possible but it surely seems empirically impossible. And Armstrong points out that empirical facts are better than logical facts. That we find it difficult to accept that we are wrong is not an appropriate response – it confuses the kind of possibility (epistemic with logical) at stake.

(ii) The second argument is a bit of a twist from the first argument in the sense that the first argument ended with pointing out that our introspective knowledge about a thought an instant ago is empirically indubitable knowledge. This second argument, according to Armstrong (1968: 104), on the other hand, aims to show that, “it is (empirically) impossible that our ordinary reports of our current mental state should be indubitable”. Armstrong (1968:105) explains this argument clearly:

Suppose I report ‘I am in pain now’. If we take the view that the latter reports a piece of indubitable knowledge, to what period of time does the word ‘now’ refer? Not to the time before I started speaking, for there I am depending on memory, which can be challenged. Not to the time after I finish speaking, for then I depend on knowledge of the future, which can be challenged too. The time in question must therefore be the time during which the report is being made. But then it must be remembered that anything we say takes time to say. Suppose, then, that I am at the beginning of my report. My indubitable knowledge that I am in pain can surely embrace only the current instant: it cannot be logically indubitable that I will still be in pain by the time the sentence is finished. Suppose, again, that I am just finishing my sentence. Can I do better than remember what my state was when I began my sentence? So to what period of time does the ‘now’ refer?

The conclusion Armstrong draws is that we need to introduce something called an ‘introspective instant’ if we are to defend the idea of indubitable introspective knowledge. However, as an inner sense theorist Armstrong will first have to explain the notion of a ‘perceptual instant’.

According to Armstrong, an example of a ‘perceptual instant’ would be a case where someone is switching a light on and off very fast, perhaps in the way of a strobe light; the time that the light remains switched off or on during this situation would be the ‘perceptual instant’. It is the smallest unit that is visually recognizable during that time. Similarly, an ‘introspective instant’ would be the smallest unit of time recognizable within our inner experiences. What is important

here is that during the ‘instant’ we can indubitably know what is going on in that instant, but past

instants are only something we can remember and future instants are only foreseen, which makes doubt possible. Now the point is, if we are to defend the view of indubitable introspective knowledge then our claim should be that our knowledge of our introspective awareness is only indubitable while it is knowledge of the current ‘introspective instant’.

Consequently, the defender of indubitable introspective knowledge would also have to admit that it would be practically impossible to make a statement or report about one’s own mental state.

As Armstrong has pointed out, by the time one is done speaking, the moment one is then referring to is that past. Only if one could complete the statement or report while one is within the ‘introspective instant’ can it be beyond doubt. However, Armstrong admits that indubitability of the ‘introspective instant’ would be sufficient to refute his theory. But it seems we may be sceptical whether there is any such logically indubitable knowledge even if there was a theory based on the ‘introspective instant’.

As Armstrong points out, memory plays an important role with regard to errors within introspection and it seems possible for us to apply this to Libet’s experiments. Libet asks his subject to report of a moment when they think they were aware of their intention to act but this would involve error for the subject reporting the clock time. The subject could be mistaken as to when they were aware because they might make an error in remembering the correct time. Other than memory, Armstrong argues that if a mental state is situated even a fraction of a second in the past an error becomes logically possible. If we apply this to Libet’s experiment, since the subject is told to report an awareness after the awareness has occurred it seems that the gap

Armstrong argues for opens up. I expand on the significance of this argument towards the end of the chapter.

(iii) The second argument, discussed above, does not seem to refute the claim of indubitability but rather it seems to question which part, or rather which temporal part, of our introspective awareness can count as indubitable. However, the arguments that we have discussed certainly suggest that our introspective awareness can be questioned. On the flip side, a defender of indubitable introspective awareness may argue that despite the fact that our introspective awareness may be mistaken, this does not mean that we do not have privileged access to our own current inner states. On the contrary, Armstrong insists it seems that once we admit that our introspective awareness can be mistaken, then it seems we must also allow that we do not have privileged access - that is, someone else might reach a true belief about my mental state when I reach a false one. Libet's arguments, if they worked, would be an example of people making some sort of mistake about their mental states. But that does not imply in any way that his arguments work. Armstrong (1986: 108) develops this argument with relation to pain very well:

Suppose that certain sorts of neurological processes were necessary for the occurrence of pain. Suppose a person reported that he was in pain, but in fact was not in pain, and that an observer discovered that the requisite brain process had not occurred. If brain-theory were in a sufficiently developed state, might not the observer conclude with good reason that the subject was not in pain? It might be objected that the observer would have no way of ruling out two other hypotheses: (i) the subject had made an insincere report; (ii) the brain-theory previously developed has been falsified. Now no doubt the logical possibility of those hypotheses could never be ruled out, but if enough were known about the behavioural and physiological correlates of mental states might not these hypotheses be ruled out for all practical purposes? And, if so, the observer would be a better authority than the subject on the subject's mental state.

Armstrong thus makes the point that once indubitability of introspective awareness is given up then logically privileged access cannot be sustained. Armstrong argues that it can be agreed that we have privileged access at times to our own mental states but the sort of privileged access he claims is empirical. Armstrong goes into much more detail with the objection that the inner sense can indeed malfunction which need not concern us, as the point is made. I will later consider whether Armstrong's argument is successful. Let us consider other objections to the inner sense theory in the meantime.

4. 10. 3 Objection Three; the computational complexity objection:

The third objection to the inner sense theory is developed by Carruthers (2000). The objection is that since the visual system itself is a physical device and a complex system it makes sense that any inner scanner would have to be a physical device which would depend on physical events in the brain. This problem gives rise to another apparent problem or objection. The problem is that there does not seem to be any such physical device in the brain and that there is no plausible accompanying evolutionary theory. Armstrong does make the statement that mental states can be known as physical states in the brain and he does mention the possibility of a device for our inner sense. He suggests that internal scanners are possible, however, no such thing being discovered seems to be a problem. But this objection seems to be based on a rather crude understanding of the sort of physical device that the scanner would need to be. It does not have to be some sort of gland, nor even a specific part of the brain. All that is needed is that information about certain brain processes and states is available to other processes and states. This could be centralised in one part of the brain, but it could also be a function spread out over a wide area of the brain.

Given the complexity of the brain, it would be very difficult to deny that this actually occurs.

The claim that there is no device to be discovered is far too strong a conclusion, and implausible.

4. 11 General Objections to a Higher-Order Approach

In general, there have been a wide range of objections raised against higher-order theories of phenomenal consciousness. As we have seen, even though some objections are aimed at higher-order theories as such, some target one or other version of higher-order theories. However, one should bear in mind that the different versions of higher-order theories should be kept distinct from one another especially when it comes to framing objections. Thus, this section will also discuss some local as well as generic objections to higher-order theories.

4. 11. 1 Local Objections:

The local objections involve objections to the different forms of higher-order theories. I will not go into much detail with the objections to other higher-order theory accounts as much as I will pay attention to the inner sense higher-order theory account. Two objections to the inner sense higher-order theory account is that the account lacks any higher-order phenomenology and that the account has a targetless higher-order representation problem. The first objection I have already raised but the second one still needs to be set out.

The problem of the targetless higher-order representation for the inner sense higher-order theory is as follows: Say, in a case where I have a higher-order experience of a perception of green, or a higher-order thought about a perception of green, it would seem I am experiencing green or I might believe that I am experiencing green while in the absence of having any such experience.

The objection is that one might not be undergoing any visual experience at all, which demands the question: is one conscious of the experience?

I think the most pertinent responses this far are the ones made by Armstrong in response to objections that would affect his theory. Armstrong's argument against the phenomenology problem and the malfunction of the inner sense problem has been successful in the sense that it has shown that Armstrong's theory can overcome these issues. As I have mentioned earlier, the most important response has been to the charge of the indubitability of the inner sense; that is, Armstrong makes a good argument for the capacity to doubt our inner senses and this argument I will later use in defence of Armstrong and the Armstrongian response to Libet. It was worth having a look at the other higher-order theories because at some point we might have thought that a combination of Armstrong's theory and some other higher-order theory might have worked as a combination to make sense of Libet's challenge but that did not seem like an option as we went through each higher-order theory and its challenges. Below I have a look at some objections that are directed at higher-order theories in general but I will argue that these kinds of objections do not affect the Armstrongian response to Libet.

4. 11. 2 Generic Objections:

The generic objections can be applied to any higher order theory even though they might be more clearly aimed at specific higher order theories.

4.11. 2 (a) The 'rock' objection

The objection is that how we become aware of a mental state should somehow be similar to how we become aware of objects like a rock. Therefore, the argument concludes that if we don't render a rock conscious simply by being aware of it, then there seems no reason why our awareness of a mental state renders that mental state conscious (Carruthers, 2016). Thinking about a rock does not simply make the rock become phenomenally conscious but mental states seem to work differently according to higher order theories. Higher order theories propose that thinking about my perception of the rock makes that thought or mental state conscious.

One could point out that my perception of the rock is a mental state whereas the rock itself is not (Carruthers, 2016; Lycan 1996). Similarly, one could point out that the rock is not the right sort of thing to be conscious like the way my perception of the rock is. Gennaro (2004), from the point of view of self-representational theories, points out that a rock is not the kind of thing that can be integrated into a mental state; that involves higher order representations in the way it is required by this sort of higher order theory. This response may be open to objection but this can perhaps be explained from the inner sense theory aspect. It would be useful to notice that a mental state has a distinctive subjective aspect or feel once it is phenomenally conscious. So with my perception of the rock it will require this same sort of subjective aspect. Therefore, it should be clear that the perceptual targeting of a rock cannot result in phenomenal consciousness - only the perceptual targeting of a mental state can.

4. 11. 2 (b) The representational powers of non-human animals

This objection is that higher order theories that include empirical claims about the representational powers of non-human animal's conflict with our intuition that non-human animals have phenomenally conscious experiences. Carruthers points out that it seems implausible that many species of mammal (think about fish and birds for example) would qualify as phenomenally conscious given that there is even a wide range of dispute whether chimpanzees have sophisticated states that allow them to entertain thoughts about experiential states. However, we still have a common-sense intuition that such creatures enjoy phenomenal consciousness (Nagel, 1974). One can resolve this objection by pointing out that some animals have something like conscious experiences but that this may not necessarily work the same way human conscious experiences do. Nobody disputes that animals have perceptions – that is, they have information states inside them that are about objects in the world. All the higher order theory requires is that they have further information states inside them that have the first order states as targets. We may not want to call all of these 'beliefs', but the model can still work to meet the intuition that some animals have something like conscious experiences, without unduly anthropomorphising them.

4. 11. 2 (c) Explaining the distinctive properties of phenomenal consciousness

Another objection is that higher order theories struggle to explain the distinctive properties of phenomenal consciousness (Chalmers, 1997). This objection is similar to the previous one - they both focus on the properties of phenomenal consciousness. The former objection was that higher order representations were apparently not necessary for phenomenal consciousness. Here the objection is that higher-order representations are not sufficient for phenomenal consciousness.

The idea is that we can think of creatures who have higher order representations that are related to their first order perceptual states in the way that higher order theories outline, yet lack phenomenal consciousness.

What seems like a simple reply to this objection is that the standards for explaining phenomenal consciousness are set way too high in making this sort of objection. Higher order theorists would argue that a reductive explanation of phenomenal consciousness and/or anything else does not have to be in a way that we cannot think of the explanandum (that which is being explained) in the absence of the explanans (that which does the explaining). Armstrong makes a distinction between three kinds of cases and I think that these distinctions can answer the current objection.

Armstrong (1968: 93) describes three cases:

Case 1. This is something that can happen when someone is driving very long distances in monotonous conditions. One can ‘come to’ at some point and realize that one has driven many miles without consciousness of the driving, or, perhaps, anything else. One has kept the car on the road, changed gears, even, or used the brake, but all in the state of ‘automatism’.

Case 2. One is thinking furiously about a problem, so furiously that one is ‘lost to the world’.

Case 3. Under the direction of an old-fashioned psychologist, one is self-consciously trying to scrutinize what goes on from moment to moment in one’s mind.

Armstrong distinguishes between kinds of consciousness. He points out that in case 2 and 3 we have consciousness even though the kind of consciousness differs in each case. In case 1, the person lacks consciousness although one must have been perceiving and acting purposively otherwise the smooth driving would have ended in an accident. One is not aware of one’s perceptions or purposes in case 1. It may be inferred that animals spend most of their lives in the

sort of state described in case 1. One should not get confused between the different kinds of awareness. If we have the kind of states that Armstrong is talking about as awareness or consciousness, then higher-order representations are in fact sufficient for phenomenal consciousness.

It might well be worth considering a variant of the current objection that we have been discussing. This variant of the objection we have been discussing does not need to involve a commitment to the mentioned demanding standards of explanation. The variant of the discussed objection is that there might be a possibility of self-representing mental states to occur unconsciously without actually becoming conscious (Rey, 2008). This objection is closely linked with the suggestions made by Libet's theory. The claim is that there may well be a possibility for the subject's higher order thoughts about his/her experiences to occur unconsciously while the subject tries to express these kinds of thoughts in speech. So the claim ties in with the objection that the happenings of the kind of representations explained by higher order theories are not sufficient enough for phenomenal consciousness.

In response to this objection one could deny that this sort of unconscious higher order cognition ever happens. Carruthers (2000) points out that one could even deny that such happenings are possible especially since there are given constraints on the evolution of cognitively demanding mental functions. However, this response would not be available to certain higher order theorists. Higher order theorists who downplay the complex higher order representations in non-human animals in response to the problem of animal consciousness suffer a counter claim. If higher order representation has evolved and if it is evident in the non-human animal kingdom then there

is no reason why unconscious sub-systems of the mind has evolved as well. At this point it is important to remember that we have not ruled out animal consciousness and Armstrong's theory is consistent with it. It seems that it would not be enough to rebut the objection by simply affirming the impossibility of unconscious higher order representations. One would need to prove how the unconscious happenings of higher order representations are metaphysically impossible if we are to make the claim that phenomenal consciousness needs to be identified or constituted by the right sort of higher order representations (Carruthers, 2005).

Another way to respond to this objection would be to appeal to the distinction between phenomenal consciousness and access consciousness in order to allow for contradictory unconscious phenomenal consciousness. As I mentioned previously, phenomenal consciousness involves a state that has a subjective feel whereas access consciousness involves states that enable interaction like reportable speech. Therefore, one could conclude that states like phenomenal consciousness can occur in the sort of way that does not involve reports from the subject. Alternatively, one could respond from a dispositionalist higher-order theorist position by arguing that one could simply possess the right sort of dual content that involves properties of phenomenal consciousness and access consciousness. I shall leave it at these possibilities.

4. 12 Recap: What the Armstrongian response to Libet's challenge is so far

I have spent a lot of time looking at various objections to Armstrong's inner sense theory and I have spent some time looking at overall objections to higher-order theories. Even though much time was taken up in focusing on these objections it is important to note that the discussion plays a role in the development of my argument as to whether the Armstrongian response will be able

to hold. What I mean is that we may want to alter the Armstrongian response in order to make sense of Libet's challenge in a way that it is not threatening to our ordinary conception of voluntary action. This is not to say that the Armstrongian response is unsuccessful. We will consider how one may object to the Armstrongian response and then weigh the need to alter the Armstrongian response or not.

After all of this detailed discussion of the various objections we need to recap what Libet's challenge is and what the status is of the Armstrongian response. The core of the Armstrongian response to Libet's challenge is that we have higher-order mental states, as well as even higher-order introspective states, and that explains why we only report our awareness of our intention to act at a later stage. Libet's experiments seem to presume our voluntary actions are initiated by our brain, but this can be understood on the Armstrongian model in that our intentions initiate our voluntary actions, but we only report our awareness of our intentions after introspecting. Now, below I have a look at different sort of objections from the ones I have been discussing. The objections below are objections that are directed towards the Armstrongian response to Libet's challenge. In other words, I consider whether the Armstrongian response is acceptable; I have a look at possible objections to the Armstrongian response and offer responses to counter claims to the Armstrongian response.

4. 13 An objection to the Armstrongian response

One possible objection may be that the Armstrongian response does not defuse Libet's threat to our ordinary conception of voluntary action because the common view is that in order for our action to be a voluntary action, it needs to be preceded by a conscious intention – not by an

intention that seems to become only conscious later. This objection brings across the idea that the Armstrongian response only seems to assert that our intentions are not conscious in the beginning.

Such an objection is merely a misreading of what the Armstrongian response entails. The objection seems to presume that all mental states are conscious -- or that all states need to be conscious -- and this is the Cartesian view of mental states. Recall I have mentioned earlier that Libet seems to follow the Cartesian view of mental states. Armstrong's model of mental states is very different to the Cartesian view. Armstrong's theory is one that involves higher-order states and therefore accepts that not all states are conscious on his model. This does not mean that an intention becomes conscious only later. A state is conscious when there is another state about *that* state. What makes it a conscious state is when another state is about it. For Libet, if the state is an intention it must itself be conscious - there is no higher-order state in virtue of which it is conscious; every state is conscious on Libet's account. On Armstrong's account, an intention is conscious but the consciousness of the state is explained by the presence of a higher state. What makes it conscious is that there is another state about it. So, the first state is conscious. The only difference is that on the Armstrongian model we understand the consciousness in terms of higher-order states. Intentions do not become conscious at a later stage (in the sense that they are initiated by unconscious ones); the intentions that cause our voluntary actions are conscious according to Armstrong.

Another response to this objection involves the fact that Libet seems to ask his subjects to introspect and then later make a report about their introspection. Recall that Armstrong points

out that our introspective reports are subject to error in his response to the indubitability of introspective awareness objection. I would like to point out that we can apply Armstrong's observation of the possible inaccuracy of introspective reports to Libet's experiment. Libet's theory seems to heavily rely on the fact that his subjects are giving accurate accounts of their introspection. Libet seems to assume that the reports given by subjects are in fact true without ever questioning the truth of their reports. It is likely that the reports given by subjects in Libet's experiment can be inaccurate or mistaken. Thus Libet's results do not seem as outstanding as he would like to think. I will discuss this response in more detail in the section that follows. I go on to look at how Armstrong's theory can make sense of Libet's challenge.

4. 14 An outline of the solution and an alternative solution

Remember, Libet's challenge is that our common-sense view of voluntary actions is at odds with the facts about those actions. Libet suggests that our voluntary actions are initiated and caused by our unconscious brain activities and not by our conscious intentions as we would like to believe. Libet's experiments claim that we only become conscious of our intention to act some time after our actions were initiated by unconscious brain activities. We could say that it would make sense on Armstrong's account that we only become conscious of our mental states after those mental states have occurred since consciousness is a second order state that focuses on the first order state. But this is one reading of Armstrong and it is a misreading. It is not that we become conscious of our intentions only later -- that would be a problem like Libet's. It is that our intentions are only conscious in virtue of a state that occurs after the intention forms. The intention was never an unconscious one although unconscious intentions are certainly possible

on Armstrong's model. This is the solution I offer - that intentions are not unconscious - and in the section that follows I will expand on more about this solution. In the meanwhile, let us have a look at an alternative solution.

Rosenthal's Actualist higher-order theory makes the claim that unconscious self-interpretation is acceptable as a source of a conscious state. So if I am a subject of one of Libet's experiments and I arrive at the belief that my experienced awareness of my intention to act was at 'x time' by unconsciously noticing that I am flexing my wrist and drawing an unconscious inference, my experienced awareness of my intention would then be rendered conscious. This seems to go against our common view of conscious states, that is, that conscious states are different to unconscious states. Even though this theory does seem to avoid the challenge presented by Libet's experiments, there seems to be an intuitive issue against this case. Many would find this sort of claim unintuitive because it goes against how we view conscious states and unconscious states, that is, conscious states are states that we are aware of whereas unconscious states are inaccessible. It does seem odd for an unconscious self-interpretation to be a source of a conscious state. Rosenthal's claim seems to avoid the Libet challenge with explaining how unconscious experiences can be rendered conscious but it does not seem like a claim that we can accept if we want to hold on to the common view of conscious states. This alternative has unintuitive issues that we would like to avoid. I will go on to discuss other possible responses to Libet's challenge.

4. 15 Ways in which Armstrong may still be able to cope with Libet's challenge

The argument I propose is the possibility of error of introspective awareness and privileged access. I also argue that the idea that Armstrong's theory is not able to cope with conscious intentions is not a problem. The intentions that cause voluntary actions are not unconscious on Armstrong's account although intentions can be, as I have mentioned.

In everyday life we would like to think of our actions as voluntary and with that we would like to think of ourselves responsible for our voluntary actions. It seems as though our daily experiences show that the intentions we form are in fact the cause of our actions when we grab a mug out of the cupboard to make that coffee, when we make a date with someone to go somewhere, when we treat someone in a particular way or even when we make mistakes. The list can go on and even as philosophers we can be stunned by the claim that Libet's experiments seem to show. How can it be that my unconscious brain activities are the cause of me typing out this dissertation when my constant intention has been to complete my Master's degree? Somehow the empirical evidence of our daily lives seems to clash with Libet's claim. One way of making sense of Libet's claim is to accept that our introspective awareness is not indubitable. This will then have to lead us into accepting that privileged access is not as privileged as we may have thought it was.

Previously we have thought of introspective awareness as something that is beyond any doubt since it seemed to be different from our outer senses. Our outer senses can surely be doubted and this has been graphically illustrated centuries ago by Descartes. It is easy to mistake a shadow of a man behind the door in the dark when in fact all that is there is a hung-up coat. It is also easy to mistake the size of an object, take for example a mountain, when one is standing a distance away

from it. If it is true that introspection is as similar to perception as Armstrong argues then it is plausible that our inner sense can be mistaken just as our outer sense can be mistaken. And if it is true that introspective awareness is open to doubt then our introspective reports are also prone to error or doubt. Armstrong's argument that introspective awareness can be open to doubt can be applied to Libet's experiment. Libet asks subjects in his experiment to report the time of when they become conscious of their intention to act. Since our introspective awareness can be mistaken it opens room for doubt on the accuracy of the reports given by subjects in Libet's experiment. Once we accept that introspective awareness is not indubitable it seems possible that the reports given by subjects can be mistaken and therefore Libet's results do not seem as conclusive as he would like them to be.

In order to understand this kind of Armstrongian response we would have to recap on Libet's experiments. In Libet's experiments, the subjects were asked to perform a voluntary act whenever they felt like doing so. They were also asked to associate their first awareness of the intention to act with the clock time. Thereafter, subjects were asked to report the associated clock time after the trial. Armstrong points out how easy it is to make a mistake with regard to our introspection, especially in a situation like this. If we are to say that introspective awareness is something beyond doubt then it cannot apply to past mental states. Moreover, if we are to say that introspective awareness is beyond doubt then our introspective reports need to be made not a minute or a second after our introspection had occurred - Armstrong calls this the 'introspective instant' (see section two). The point is that time is essential when it comes to our inner sense and making introspective reports and their infallibility. According to Armstrong any report that we make that is not made within the same time our introspection happens is open to doubt. It is

surely impossible to make an introspective report at the same time as the introspection is happening but even so, our introspective awareness is open to doubt even though we can only make an introspective report after our awareness has happened and that time gap between the introspection and our introspective report leaves room for doubt; so it follows that our introspective awareness is questionable -- I explain with my example below.

As mentioned earlier, according to Armstrong, two events that happen at different times should always be known as distinct instances or distinct existences. Let's see if we can apply this to Libet's experiment: if I were a subject in Libet's experiment and I thought that I was aware of my intention to act at 'x time', say an hour ago, then my thought about my awareness and the actual time of my awareness should be distinct instances even if the time difference was less. And since my thought about my awareness and the actual time of my awareness are distinct instances it must be logically possible for there to be no awareness at 'x time' corresponding to the actual time of my awareness. Perhaps if I were asked to report my awareness less than a fraction of a second after my awareness it would seem less questionable but this is nevertheless questionable because of the time gap. So the subject in Libet's experiment reporting an awareness of 'x time' after the trial depends on past mental states which can be challenged, making all the more likely for one to question the subject's introspective report. If the subject in Libet's experiment relies on past mental states and this can be questioned then it makes it likely for the subject to provide an inaccurate report. Therefore, Libet's claim that we only become conscious of our intention at a later stage, the subject's introspective reports and our introspective awareness in general are open to error. It is clear that Libet's experiments rely too heavily on the accuracy of the subject's reports.

Besides the fact that the subjects rely on past mental states, the problem also comes in with the fact that the introspective reports are not made at the same time the introspection was made which logically brings the introspective report into question. If, as a subject in Libet's experiment, I make my introspective report after my actual awareness I depend on memory, which can be challenged. My memory could have misled me at any time, in which case it puts my introspective report at risk. But even if Libet asks the subject to note the awareness time and then to report this awareness after trial, it is still questionable due to the time gap between the awareness and the introspective report, no matter how small the time difference is. It takes time to make an introspective report and even more time to note one's awareness so it is logically possible for our introspective report not to correspond to our actual awareness. So it would make sense that Libet's experimental results show that the reports made by subjects do not correspond to the subject's actual awareness.

So far it seems an issue of time and it should be clear that the difference of time can affect how much doubt can be thrown at our introspective awareness. It seems plausible that when I think that I thought I wanted to grab my mug and thereafter reported that my awareness of my thought to grab my mug was at 'x time', this could be questioned since the time of my awareness of my thought to grab my mug and my introspective report have somewhat of a time gap. Naturally, our introspective reports and the awareness itself have a time gap since it takes time to make an introspective report. One cannot simply introspect and make an introspective report during the same instant because we need to first have an introspective awareness in order to make an introspective report and this is perhaps what some might argue. However, since we have this natural time gap between introspective awareness and introspective reports it is logical that error

is possible if we take into consideration: (1) memory and; (2) the introspective awareness and the introspective report are two different instances. When we make an introspective report of a mental state that occurred in the past we will depend on memory - perhaps this argument is not so effective for making an introspective report on mental states that occurred less than a second ago; that is unless the person making the introspective report has serious memory problems.

Libet does not seem to take into account the status of memory with each subject; he does not assess whether or not each subject has good memory. Other than memory, since it is natural that our introspective awareness and our introspective reports occur at different times they should be noted as two different events. And if our introspective awareness and introspective reports are two different events then it is likely for each event not to correspond to the other; Libet does not take this into account. The results that Libet arrives at are questionable since he does not take these factors into account.

Earlier I mentioned that Armstrong argues that the mere existence of unconscious mental states proves that our inner sense is open to doubt. If we were conscious of all of our mental states, as Descartes would have believed, then it seems logical to argue that our introspective awareness is beyond any doubt. However, if we have mental states that we are not aware of, such as our unconscious mental states, then it is possible that our inner sense is open to doubt. How can we say that our inner sense or our introspective awareness is indubitable if we have such things as unconscious mental states? Our inner sense of the cause of the behaviour might be wrong since we may not be aware of what actually caused it. In some cases we only come to the realization that we were thinking something after the thought had come and passed. Like vaguely thinking about what to cook for dinner while driving but then only remembering the thought after going to


the grocery store some time later. It is known that we cannot be conscious of all of our mental states and we are not really in control of our unconscious mental states. It is not as if we can suddenly decide, “I am going to make this mental state of mine unconscious” or “I am going to make this unconscious mental state of mine into a conscious mental state”. We may not have the knowledge of which states cause our behaviour. On the flip side, if one is able to prove that our introspective awareness is indubitable and free of any errors, that is, that we are able to be conscious or in control of all our mental states then it seems as though the opponent would have a good case against the Armstrongian response to Libet. Libet seems to have the idea that we should be in control of all our mental states and if we are not then our unconscious brain activities are doing the controlling but this kind of Armstrongian response shows the flaw in the accuracy of what Libet’s suggests.

Now, if we accept that our introspective awareness is open to doubt, then perhaps we should accept that our privileged access is not as privileged or private as we would have believed. As I have mentioned earlier in the chapter, Armstrong argues that it seems that once we admit that our introspective awareness can be mistaken, then it seems we must also allow that we do not have privileged access - that is, someone might reach a true belief about my mental state when I reach a false one. Once again, this is applicable to Libet’s experiment. It is not so much that somebody else may have a better idea of what is going on in my head than myself but rather that Libet’s idea of mental states is flawed and more than likely out-dated. Here again, I am pointing to Libet’s reliance on the accuracy of his subjects’ reports; Libet’s account is based on subjects giving accurate accounts of what they are experiencing (of when they become aware of their intention to act). This then makes sense that the reported time of awareness by the subject in

Libet's experiment may well not correspond to the actual time of awareness. He is relying on the Cartesian account of mental states - which we are aware of them all and cannot be wrong about them. This Armstrongian response is that because our introspective awareness can be mistaken Libet cannot place the weight he needs to on his results - it could be that what the subjects are reporting is inaccurate. Libet's account is taking for granted that we have direct access to our own thoughts and that we cannot be wrong about them. Armstrong shows us how this assumption is mistaken.

Chapter 5

Conclusion

The logo of the University of the Western Cape, featuring a classical building facade with columns and a pediment, with the text 'UNIVERSITY of the WESTERN CAPE' below it.

Libet's experiments have seemed to challenge our ordinary conception of voluntary action. Libet's experiments appear to show that the brain initiates voluntary actions and the person becomes consciously aware of an intention to act only some 400 msec after the brain's initiation. But this result has many philosophers and even ordinary people wondering: how is it possible that even though I think that it is I that is reaching to grab the coffee mug, it is actually a result of my unconscious brain activities? We usually think of our intentions as something conscious and that usually leads us into our actions. I have investigated whether a particular theory of mind – namely, Armstrong's Central State Materialism – can cope with the challenge posed by Libet's studies and salvage our ordinary conception of voluntary action.

In the beginning I argued that Armstrong's theory appears promising because his account of consciousness and introspection as higher-order states allows room that we will become aware of our willings only after those willings are already initiated. We should not be so surprised that our awareness of our mental states only occurs (a very short time) after the state itself, because of the very nature of consciousness. I investigated various objections to higher-order theories and to Armstrong's own inner sense higher-order theory. Not only did I consider these various objections, but I also had a look at responses to these objections and how Armstrong may be defended in response to some objections.

I have argued that Libet's challenge also only has the force it seemed to if we accept that our introspective awareness is indubitable. I further argued that if we accept that our introspective awareness is not beyond doubt then we should also accept that our privileged access is not privileged. Libet's conclusions depend on a number of faulty assumptions about the mind, assumptions which Armstrong's theory successfully shows to be false. This means that the concern we feel about Libet's conclusions is misplaced.

More research needs to be done on the connection between moral responsibility and Libet's experiments. There is also room for investigating free will with regards to Libet's results. Future research may also model the ideas developed in this dissertation more explicitly.

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