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TESI DOCTORAL

**Passive Actions:  
A Body-First Account**

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Facultat de Filosofia i Lletres

Departament de Filosofia

Univeristat Autònoma de Barcelona

Gener 2018



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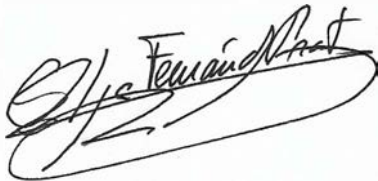
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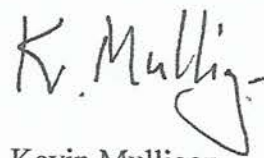
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## *Introduction*

There is a fictional character who constantly performs what will be the topic of this dissertation: passive actions. In *The Outsider (L'Étranger, 1942)* Albert Camus introduces Meursault, a middle-aged French-Algerian man, characterized by a surprising degree of indifference. The story relates, from the first-person point of view, the period which runs from Meursault's mother's death to his own death. Despite the detailed and constant exercise of introspection that the narration reveals, Meursault advances through the events of his life as a detached observer of those events. This detachment shocks the reader, especially when it concerns Meursault's own actions: Meursault's attitude towards them is also that of an observer. Take, for instance, the following fragment, in which Meursault describes his killing of "the Arab":

And then the Arab drew his knife and held it up toward me, athwart the sunlight. A shaft of light shot upward from the steel, and I felt as if a long, thin blade transfixed my forehead. At the same moment all the sweat that had accumulated in my eyebrows splashed down on my eyelids, covering them with a warm film of moisture. Beneath a veil of brine and tears my eyes were blinded; I was conscious only of the cymbals of the sun clashing on my skull, and, less distinctly, of the keen blade of light flashing up from the knife, scarring my eyelashes, and gouging into my eyeballs. Then everything began to reel before my eyes, a fiery gust came from the sea, while the sky cracked in two, from end to end, and a great sheet of flame poured down through the rift. Every nerve in my body was a steel spring, and my grip closed on the revolver. The trigger gave, and the smooth underbelly of the butt jogged my palm. And so, with that crisp, whipcrack sound, it all began. I shook off my sweat and the clinging veil of light. I knew I'd shattered the balance of the day, the spacious calm of this beach on which I had been happy. But I fired four shots more into the inert body, on which they left no visible trace.

In this passage, Meursault describes the moments previous to his killing of a person. The description focuses on the effects of the sun on his body. Mixed in with those effects are his own bodily movements as he fires the shots: in the same way as the sun causes the clashing of the cymbals, it also seems to cause the movements to fire the shots. Meursault thus appears only to be an observer of how the sun causes his body to move in order to kill “the Arab”. This is the most dramatic case of detachment described in the book, since it describes a murder; but the narration also shows Meursault detached from other, more mundane actions.

The fact that Meursault only seems to *describe* his actions but not to *perform* them, constantly takes the empathic reader by surprise. Such readers tell themselves that *introspection* sometimes presents actions which seem to be of the same kind as Meursault’s detached actions. For instance, they may experience themselves only as observers of their own actions when expertly playing a piano sonata, when taking steps to cross the street or when braking on approaching a red traffic light. The role that the subject seems to play in these actions is that of an observer of their own actions. Thus, although there may be a difference between the subject of these actions and Meursault, in that the detachment is permanent in Meursault and that it is apparent in crucial actions (for instance, when he kills a person), such a reader would not deny that this detachment can exist. Despite the initial surprise, this reader might thus finally accept *empathy* with Meursault and might think that the killing of the Arab is of a kind of action that others often perform.

Some academics have not ignored this kind of action and its importance for a theory that aims to cover action as in all its variety. An interesting and early description is given by Max Scheler (1973):

(...) one should not refer to purposes in those cases where the phenomenon of “something welling up in us” occurs. Here, in an entirely straightforward manner, we experience the conative moment in one case without yet coexperiencing a certain “away from a state” and a “toward something”; this is so, for instance, in the case of a pure “impulse of movement,” in which the moving concerned does not in any sense become a “goal” or something that is “striven for,” and in which, a fortiori, no goal is given. (Scheler 1973: 32)

In this fragment, Scheler introduces a kind of bodily movement which lacks a goal. His notion of *goal* has, however, to be defined, since it is a subject of discussion whether what he calls ‘a pure impulse of movement’ does in fact involve goals or not. It seems more plausible that such movements do involve a goal, but that the goal is not endorsed in a significant way by the subject.

In contrast to these views and the intuitions of the charitable reader, Meursault’s actions actually seem to be a counterexample to many explanations of why something is an action. One important kind of theoretical explanation of action claims that what is essential to an action is *a subject who performs the action: the agent*. It is a matter of debate how this agent should be understood, but it seems that none of the possible conceptualizations can be grounded in a subject who is only the observer of their own actions. Take, for instance, one common view, according to which the agent is a subject who has a kind of mental state, often claimed to be *a desire to perform something*, which finally causes them to perform an action. References to this kind of explanation of action appear in Hobbes (2003 [1651]). According to Hobbes, *the will* is the desire which is present to the subject’s mind at the end of a deliberation and which is the cause of that subject’s actions. In contrast, the characterization of Meursault as an observer of his actions does not introduce any element which can be identified with this will. When describing the killing of “the Arab”, Meursault only mentions the effects of the sun on his body, which appears to be sufficient to explain it. Hobbes’ kind of explanation is supported by important intuitions about a relation between the performing of an action and the reasons that a subject has for that action. According to those intuitions, actions are essentially *motivated and caused by the agent’s reasons for action*: I drink water because I am thirsty. These views involve intuitions only being preserved by considering that an action is something performed by an agent who has a mental state which includes reasons for the action. To perform an action the subject should thus desire, intend to perform or try to achieve the result of the action.

This view makes it difficult to explain actions of the kind we encounter in Meursault’s behaviour. Before presenting three general strategies to resolve this difficulty, I want to point out that the intuitions about a relation between motives and actions which support Hobbes’ kind of view are also in tension with the description of kinds of



action which have also been (although more marginally) objects of study in theory of action.

The psychology of action often focuses on actions which do not seem to be caused by the will and which, by contrast, seem to be caused by other elements. These explanations minimise the role of the agent willing to perform the activity. For instance, some explanations of *routine sequential activity*, such as expertly typing, stress the causal role either of the perception of the context (Botvinick & Plaut 2004) or of immediate past performances (Behmer & Crump 2017). Similarly, the study of *skilled actions* addresses issues related to the causal role of perception in action (Jackson & Mogan 2007, Abernethy and Zawi 2007). A causal relation of stimulus-response has also been proposed to explain *learnt responses to stimuli* (Wolfensteller & Ruge 2012, 2014). And in the same direction of minimizing the role of the will of the subject, it is also proposed to explain *postural adjustments* as something “preprogrammed” which answers to “inertia forces” (Bouisset & Zattara 1987).

We can also find in philosophy descriptions of performances which do not match Hobbes’ intuitions. This is the case of autotelic actions. If actions are explained through a will which has reasons for performing them, then an action should be thought of as something instrumental, since the motives for it are something other than the action itself (action is motivated by the will to achieve a goal, as determined by the agent’s preferences other than the performing of the action). *Autotelic actions* (Aristotle 2000, Csikszentmihalyi 1990) are, in contrast, actions performed for their own sake, like following a bird for the sake of following a bird. These non-instrumental actions are not the result of a subject’s desire to achieve a different end. The causal role of the will is also under pressure in explanations of impulsive and emotional actions. Frijda, Ridderinkhof & Rietveld (2014) suggest that the causal role of emotions in these actions requires a novel theoretical perspective.

Developmental studies of movements in newborns and young children do not use the will of the subject as explanans either. According to the conclusions of some experimental studies, the body babbling of newborns is different from pure reflex since it is goal-directed (Rochat & Hespos 1997) and responds to the guidance of earlier forms of attention (van der Meer et al. 1995, Hofsten 2004). Thus, the intentional and agentic character of these movements is not explained by means of

the existence of a subject intending to perform an action. Rather, attentional processes play a major role in this explanation, and it even seems that sometimes, the possibility of paying attention to body babbling is taken to be constitutive of the agentive character of these movements. If adult intentional action resulted from an increasing complexity in this kind of movement, and such increasing complexity did not introduce any essential role of the will, then mature action would not require that the subject intend to perform an action. The clarification of the different steps which go from these earlier movements to mature action, the explanation of how the control of these movements appears, or of how the subject attributes these movements to themselves as agents, might shed light on the role or absence of role of the agent who intends to act.

These kinds of actions are not primarily the focus of this dissertation, although the view which I am going to present, in searching for an explanation of a kind of action that does not match the aforementioned intuitions, provides a better framework to explain them.

The tensions between the kind of view expressed by Hobbes and Meursault's actions can be resolved, *first*, by denying the apparent specificity of Meursault's actions and claiming that all actions should be explained in terms of the subject's will and reasons. According to this strategy, any apparent counterexample, such the killing of "the Arab" by Meursault or my braking as I approach a red traffic light, is the result of the subject's will. This option would claim that the killing of "the Arab", if it really is to count as an action, is in the end mediated by the subject's will; for he *desires* (in a deflated and theoretical sense of 'desiring') to shake off his sweat by pulling the trigger. This option must modify or deflate the conceptualization of the subject's will in order to explain the apparent exceptions by means of it.

A *second* strategy holds that there are two different kinds of performance. The apparent counterexamples are indeed a kind of performance which is not caused by the will of the subject. This second strategy would be compatible with introspection (which empathizes with the kind of action that Meursault performs) and with intuitions about the relation between motives and some performances. The main problem with this view is the apparent continuity between these kinds of

performances (which seem to be basically actions). It is not clear that this second option can offer an explanation for the fact that they are both actions in the same way.

A *third* option is to claim that ultimately intuitions about the causing role of the subject's will are incorrect when it comes to action in general (and that this will only causes one kind of action), and that another conceptualization capable of including all kinds of actions should be proposed. After explaining, in the first and second chapters respectively, the problems with views which defend the first and the second strategy, I will then explore this third strategy. As we will see, it guarantees the continuity between all kinds of action. However, it requires us to revise our intuitions about what it is to perform a motivated action.

In this regard, I will propose that the intuitions which causally relate the reasons of the agent to the performance of an action are actually the result of a *biased* approach to action which selects as the explananda of a theory of action only those actions *which are phenomenologically salient in the stream of consciousness*. Phenomenologically salient actions are those which are inputs to reflection or to thought, and which appear in the first-person narrative. Let us suppose that—maybe because of a restriction of coherence and rationality—only actions that are felt to be caused by something related to the will are phenomenologically salient in the stream of consciousness. As a consequence, if a theory of action selects those actions which are phenomenologically salient, the starting point will be those actions related to the will. However, when the analysis of action is not confined to phenomenological saliency, but targets all actions, then other kinds of action appear. At this moment, the subject and the theorist of action might realize that there is a kind of action which apparently is not performed because of the subject's motives.

This dissertation accords a central role to this second kind of performance which is less phenomenologically salient than the types of action often considered. I will call this kind of action 'passive action' since the apparent lack of the subject's will as its cause gives it a passive character. *Quantitatively speaking*, we cannot deny the importance of passive actions. They seem to include manifestations of skills and actions embedded in a sequential activity like crossing the street in order to go and buy the newspaper, the actions one performs while making coffee, or the different actions involved in dressing oneself. Actions which are performed while focusing

one's attention on another thing are also passive actions, like doodling or tapping one's fingers while talking on the phone. None of these actions seems to be brought about by a previous desire to perform them, or any other similar mental state.

Indeed, because of the fact that passive actions are a kind of performance which arises even where will and reasons are not involved, it can actually be argued that not only are they numerous, but that they are a *basic kind of performance*. Above, I introduced autotelic actions, which do not seem to be performed because of reasons; it is sometimes similarly argued that they show an essential and basic dimension of a person.

Passive actions, however, pose important problems for a theory of action. Without an agent who causes the action, how can the capacity to act be explained? Can the properties that explain actions be something other than a subject who acts? Would that not result in a picture in which no action is performed and only things which happen to the subject take place? In what follows, I consider in more detail some of the questions that arise when we consider this kind of view.

When searching for a way to explain passive actions, it is interesting to point out that when performing these actions, the *body* of the subject is salient. Take, for instance, Meursault's description of his killing of "the Arab". Meursault reports this action after presenting in detail how his body reacts to the sun in what seems to be the presentation of a relation of consequence: the killing of the Arab is described as the consequence of the effects of the sun on the body: the body *responds* to the effects of the heat by shooting the Arab. This salient experience of the body also appears in the experience of the subject who is skilfully playing a sonata. This category of bodily response or reaction is a possible alternative to the explanation of action as the result of will, based on a reason. In order to explain passive actions, this category will become central, as we will see. It is an *acting body* which may explain the action, and actions are actions of the subject since they happen in the subject's body. This kind of explanation is, however, insufficient. A bodily movement is not sufficient to explain actions: bodily movements *per se* are not actions. For instance, a nervous tic is not an action. Arthur Danto proposed the following general way of explaining action which points to the fact that bodily movements are neither sufficient nor essential:

This yielded a formula that an action would be a movement of the body plus  $x$  (...); and the problem in (...) [this] domain is to solve in some philosophically interesting way for  $x$  (Danto 1981: 5)

The  $x$  is normally thought to be something related to the subject's will (of which the body is an inert instrument). In searching for an alternative to will-based explanations of action, this  $x$  seems to disappear, and the question of why some movements of the body are movements that constitute an action becomes an arduous task. Without this  $x$ , what are the differences between a nervous tic and an action? The difficulties linked to the development of this kind of explanation are an important reason to uphold the intuitions according to which an action is caused by the subject's will.

In this dissertation, I explore and propose a bodily explanation of action. Apart from the problems of fleshing out the very idea of bodily explanation of action, this view also faces the problem of how to explain those actions which do not seem to involve bodily movement, such as mental actions, e.g., deciding what to cook for dinner, calculating  $68 + 57$ , or omissions. A bodily explanation of action does not seem capable of explaining these examples. But this problem is less important than it seems to be. It is an open question whether bodily actions and non-bodily actions are actions of the same kind and should be explained in the same way. If my view succeeds in providing a plausible body-grounded theory of action, its plausibility will be a reason for arguing for a difference between bodily and non-bodily action; and the discussion would thus be shifted to the nature of non-bodily actions and to the relations between the two kinds of actions.

This kind of explanation, which is presented as an alternative to a reason-based explanation of action, should also explain what the relation of the resulting performances is to rationality. It seems that, even if these actions are somehow not motivated by actions, a theory of passive actions cannot claim either that they are irrational actions or that they do not show any kind rationality.

To clarify matters before I embark on the thesis proper, in Chapter 0, I introduce the category of 'passive actions'. Passive actions are those actions that subjects experience as something which happens to them. I characterize them by their phenomenological traits. Other authors have introduced similar kinds of action. Their

characterizations are theoretically formulated: given a theory of actions, these similar kinds of action lack one of the theoretical traits usually attributed to action. It is very difficult to maintain a merely descriptive analysis of these actions which avoids theoretical characterization. In Chapter 0, I try to characterize passive actions by their phenomenological traits while ignoring theoretical frameworks. I also present some ordinary traits which seem to be shared by most cases of passive actions. A more developed theory of passive actions is needed to determine more clearly whether these more ordinary traits are essential features of passive actions and if so, why. They might, however, give us some clues as to the different options that are available to us if we wish to explore different ways of explaining passive actions.

In Chapters 1 and 2, I examine different theories which have been proposed to explain some cases of passive actions. In the first chapter, I discuss two ways of explaining them as instances of performances in which the will of the subject is not involved. One kind of such an explanation is that offered by Andy Clark, who proposes that passivity when acting is explained by the existence of some sub-personal motor mechanisms involved in action. A second kind of explanation is presented by Hubert Dreyfus. According to him, some passive actions are the result of a meaningful and causal relation between the body and the environment. The second chapter is devoted to those theories which try to understand passive actions by reference to an agent who performs them. The strategy of these theories is to deflate the notion of causation by a subject's will in order to explain all kinds of actions, even those which seem to be an exception to this relation. I present Kent Bach's view, as he was the first person to propose this kind of strategy, and the views by John Searle and Elisabeth Pacherie. I will argue that this kind of strategy results in views about action which are internally inconsistent.

In Chapter 3, I explore a novel way of approaching passive actions which considers whether it is possible to relate passive actions to the basic dimension of action, which is introduced when discussing the phenomenon of non-basic actions. Non-basic actions are those actions which are performed through or by performing another action, such as crossing the street by taking one step after another, and basic actions are those actions which stop the possible regress that might occur if all actions were non-basic. Some similarities between basic actions and passive actions encourage me

to explore this relation. I finally argue that both phenomena exist, since actions are performed by moving the body. The bodily movements of an action constitute potential actions which, when actualized, explain both basic actions and passive actions. Basic actions would be the potential actions which are embedded in the context of a non-basic action; while passive actions would be the actualized potential actions which are (normally) performed without the context of a non-basic action. This way of explaining passive actions, however, only works if movements can be performed without the necessity of the context of performance of a non-basic action. This means that the movements involved in an action are performed without the subject performing an action.

In Chapter 4, I explore what different theories claim about the movements involved in an action, in order to see whether a theory which defends the conditions set out at the end of Chapter 3 can be satisfied. I present two different theories of action which propose an account of movements involved in an action but which do not satisfy these conditions. First, I explore the view of John A. Bargh, who claims that sub-personal mechanisms result in movements. The second view, proposed in different ways by Helen Steward and Jennifer Hornsby, is that the movements involved in an action are the result of engagement of the agent with their body (which is different from the agent's engagement with the performance of an action). I will argue that neither view manages to explain the fact that the movements are agential movements.

In Chapter 5, I present my own positive view. According to this view, the movements of an action are the result of a tendency of a body to move. Presented in this way, the movements do not require the performance of an action in order for them to be the movements of an action: they are the movements of an action in a basic way. This yields an explanation of the movements of the action at the personal level which, however, is not grounded in the will of the subject. Which movements are performed is determined by something which, for the subject, involves a pattern of movements (for instance, the red traffic light which involves the movements needed to put the brake on). This view does not result in a picture in which entities like intentions play no role, since this tendency of a body to move might satisfy a pattern of movements related to intentions. However, intentions would not be something essential for action, and the relation between action and intention would be indirect and mediated

by the tendency of a body to move while selecting the pattern of movements involved in aiming to fulfil an intention.

The questions raised by the phenomenon of passive actions which are discussed in what follows are questions discussed elsewhere in the philosophy of mind. Just as there may be reasons for acting and a for subject performing actions based on such reasons, so too, there are reasons for and against emoting, desiring and believing, all of which may be motivated by such reasons. Unsurprisingly then, the phenomenon of passive actions studied here, of motiveless actions (not performed by a subject who has reasons for them), has a number of more or less well-known counterparts. There are motiveless or ungrounded beliefs or certainties, according to some philosophers (Mulligan 2006). There are motiveless desires—whimsies (Lauria, forthcoming); and there are motiveless emotions. The following account of passive actions is thus intended to provide one important part of a philosophy of passivity.





## Chapter 0

### Passive actions

This chapter introduces a certain kind of actions: *passive actions*. Passive actions are characterized by their being experienced as *something that happens*. Let us first imagine that I am expertly playing a sonata on the piano. When performing this action, I *observe*—Kent Bach’s (1978) expression—that the movements of my hand *follow* one after another. I experience the sequence of these movements as something which happens to me. The same happens when expertly driving home. My action of putting on the brake is something that I *find* myself performing on approaching a red traffic light. In the kind of performance that Dreyfus (1993, 1995, 1999, 2002, 2007) describes as being ‘in the flow’, I similarly feel that my body is moving to perform an action and that I am a mere observer of this movement. I will call this experience of an action as something which happens to me, ‘an experience of passivity’ and the actions which provoke it, ‘passive actions’. I contrast I will call actions which do not involve such an experience ‘*active actions*’.

The performance of an action is usually taken to be opposed to something happening to one. For this reason, the notion of a passive action in which the action is experienced as something which happens to the subject, may appear to be incoherent. This tension between an action and the experience of passivity disappears if *happening* is considered to be opposed, not to performing an action, but to a subcase of performance of an action: *when the action is caused by the subject*. Accordingly, the experience of passive actions does not exclude the experience of performing an action, but the experience of the subject being the cause of the action. This way of understanding the tension (which introduces a difference between a subject performing an action and causing an action) opens up a theoretical space for *a kind of action which is not experienced as caused by the subject but which is experienced*

*as performed by the subject*. In this theoretical space, there is no tension between the performance of an action and its experience as something which happens to the subject. This certainly seems to be the space where passive actions should be located. This strategy requires clarification of the notion of performing an action without the subject causing it.

To understand this idea of passivity, it is useful to distinguish between implicit and explicit experiences of passivity. The experience of passivity is *explicit* when the subject is aware of the action by means of a mental state which, first, is conscious and, second, of which the subject is directly aware via a higher-order mental state. It is *implicit* when the experience of passivity is not explicit. A positive account of the implicit experience of passivity is difficult to give. Implicit experience of passivity occurs in those actions that the agent experiences in an *indeterminate* way (actions performed in a distracted or self-absorbed way). Actions experienced in an indeterminate way are not experienced by the subject in detail: neither the action that is performed nor its properties (for instance, the movements through which the action is performed). An example may help explain why actions performed in a self-absorbed or distracted way involve the experience of passivity: if the subject becomes retrospectively aware of an implicit passive action, they explicitly experience the passivity of what they had performed. Imagine I was tapping my fingers in an absent-minded way. The performance of this action involves an implicit experience of passivity since, when I become retrospectively aware of the action, I explicitly experience its passivity. The situation that the example presents happens very often: in experiencing the action, there is often a dynamic transition from the experience of an implicit passive action to the retrospective experience as an explicit passive action.

I will now present some examples of implicit and explicit passive actions.

### **Explicit passive actions**

Explicit passive actions are usually typified as actions performed in an expert way, for instance, the actions of a professional tennis player who sees the ball coming towards them and returns it. When returning the ball, the player experiences the fact that they are an observer of their movements. Two expressions used by Hubert

Dreyfus (1993, 1995, 1999, 2002, 2007) are often applied to explicit passive actions: the tennis player experiences the fact that they *have let their action happen* and that *they have acted in the flow*. The explicit experience of passivity is, however, also present in many actions which are more mundane than those of the tennis player. For instance, it occurs when you tie your shoelaces.

### **Implicit passive actions**

The following two situations illustrate implicit passive actions. In one, a subject is cooking while watching the news on TV. While listening to a piece of news, this person puts some tomatoes in a bowl, pauses and finally removes the onion from the pan. In the other, the subject is walking down a steep hill. There are many stones and leaves on the path, and this person feels how their feet ache because of the very steep slope, and they are talking to a friend about how to share the day's expenses. All the steps and other bodily actions involved in walking down the hill are passive actions.

Imagine that, in the first situation described, there is a moment when the subject stops listening to the news and makes what they are doing as they cook more phenomenologically salient. At this moment, they realize that they were phenomenologically detached from their recent actions while cooking. The subject does not experience those recent actions as something caused by them, but rather feels that the bodily movements of those actions were something that they allowed to happen to them. At that moment, they have an experience which involves an experience of passivity in relation to their past actions.

Curiously, once the subject becomes aware of their actions of cooking, even if the actions performed until that moment were passive actions, the subsequent actions involved in cooking are *active actions*. In the second situation, when the subject becomes aware of the movements of avoiding the stones and of moving their legs to avoid the pain caused by walking down such a steep slope, they continue to perform *passive actions*, but that passivity becomes present and *explicit*. A theory of passive actions should explain the dynamic relations between implicit passive actions, explicit passive actions and active actions; and why there are these two different situations (one in which, when the subject makes their passive actions

phenomenologically salient, they start to perform active actions, and another in which their actions continue to be passive).

### **Features of passive actions**

What, then, are the salient features of actions in detail? I will now systematize some of the traits I have already mentioned. They should be added to that of being an action. On the list, only feature 1 describes a necessary and sufficient trait for being an action which is passive; features 2-6 present some regular traits which seem to be shared by most cases of passive actions. These features might give some clues as to how to explore different ways of explaining passive actions. A more developed theory of passive actions is needed to better determine whether they are essential features of passive actions and why.

1. *Experience of non-agential causes of the action.* I called ‘the experience of passivity’ the experience of the action as something which happens to the subject, and I juxtaposed it to the experience of *oneself being the cause of the action*. I have already presented two expressions which describe this experience of non-agential causes of the action (‘being an observer’ and ‘acting in the flow’). I can also report these actions as something which *already started* without me being involved in their starting; as something which I *found* myself doing; or as something which I *let happen* as if each action triggered the following one.

Thus, instead of experiencing that the subject is the cause of the action, the experience of passivity involves the experience of non-agential causes of the action. The subject feels that the action is the result of other elements, different from the subject who performs them (although it is not necessary for the subject to experience what those other elements are in detail). Very interestingly, what is felt as a non-agential cause of the action might include mental states, such as when one is cooking in a self-absorbed way following a particular well-known recipe, or when one starts to smoke because they had a strong desire to. Thus the fact that the origin of the action is felt to be a mental state does not mean that the subject feels that they are performing an

active action. What I have called ‘the performance of an action by a subject’ cannot be reduced to the subject having a mental state which is involved in the performance of the action.

The fact that the action is not felt as caused by the subject but by other elements seems to go hand in hand with another feeling, the *feeling of surprise* that the subject has when they realize that these actions are non-agentially caused by other elements and not by the subject. This feeling of surprise seems to be intrinsically related to the experience of passive actions.

2. *Effortless movement*. The explicit experience of passivity seems to involve a feeling of easiness and smoothness in bodily movement. When passively acting, the body is in such a state that moving to perform an action is the natural continuation of what has been performed. There is no awareness of resistance when passively performing actions.
3. *Bodily dimension*. The experience of passivity is related to the experience of the body: it seems that if passivity is phenomenologically salient, the body is also phenomenologically salient; and that if it is not me who causes the action, it is *my body* that is to the non-agential cause of the action.
4. *Passivity as a dimension of the action*. I have presented passive actions as a kind of action. However, it could be that the experience of passivity does not refer to a kind of action, but to a dimension of action which, for a special reason, in passive actions, become phenomenologically salient. It could be that some aspects of performing almost all actions seem to be passive. Take for instance, the action of drinking a glass of wine and imagine that it is a very conscious action. Maybe I was not sure, for medical reasons, if I should drink the glass of wine, and finally I decided to drink only a little. So I drink it, and I taste it with pleasure. I think that in this situation the movements of the mouth and of tongue that are needed to enjoy the wine are active experiences. If I focus on these movements, I feel that they are something that I am performing and that they are an active performance. However, the trajectory of the arm and the pressure of the fingers when grasping the glass of wine are aspects of the action whose experience involves an implicit experience of

passivity. The experience of passivity and of actively doing something appear in the same action. The difference between activity and passivity thus seems to be a difference in the way of experiencing two different dimensions of the same action: in passive actions, the active dimension is not phenomenologically salient; and in active actions, the passive action is not phenomenologically salient. A 'horizon' of passiveness seems to be essential to awareness of action.

5. *Learnt performances.* Another interesting feature of passive actions is the fact that most passive actions seem to be performed *skilfully* and to be the result of a *learning process*. Paradigmatic cases of passive actions are actions performed when driving, typing or tying a shoelace. However, this is not a feature shared by all passive actions. Doodling may be a passive action (according to trait 1) but it is not an ability or the result of a learning process. The same is true when I find myself eating a peanut.

The following anecdote, which is an example of expressive, affective contagion, presents a case of explicit passive action which is not skill-based:

To explain what I mean, it will help to recount an anecdote told me by Jonathan Miller, the theatre director (personal communication). As a young man, he came across a crowd who, he learned, were waiting for the Queen to pass in a car. Although this was one of the last things Jonathan would consider doing, he could not easily get past. When the car passed, the crowd cheered and waved. (This happened in the 1950s when royalist adulation was still widespread.) Jonathan says that to his surprise and horror, given his self-image, 'I found myself raising my arm and starting to cheer', which he quickly suppressed. (Marcel 2003a: 75)

6. *Possibility of controlling passive actions.* The performance of a passive action does not exclude the possibility of controlling the action and of modifying it. Although the subject experiences passive action as something which is happening to them and which is not caused by them, they may experience their ability to control and modify the action they are performing.

The experience of passivity that I have characterized in this chapter should be distinguished from what is also called ‘an experience of passivity’ in studies of schizophrenia:

Many patients with schizophrenia describe ‘passivity’ experiences in which actions, thoughts or emotions are made for them by some external agent rather than by their own will. ‘My fingers pick up the pen, but I don’t control them. What they do is nothing to do with me.’ ‘The force moved my lips. I began to speak. The words were made for me.’ (Mellors 1970, p.18). In most cases the actions made when the patient ‘feels’ that he is being controlled by alien forces are not discrepant with his intentions. Thus the patient may be correctly performing the task set by the experimenter (e.g. making random movements of joystick) at the same time as having the experience of passivity (see Spence et al. 1997). (Frith, Blakemore & Wolpert 2000: 1783-1784)

This experience of passivity is different from the experience of passivity which characterizes passive actions. The following two differences between the two ways of experiencing passivity can be highlighted. First, in the schizophrenic experience of passivity there is the attribution of the action to another agent’s will. Passive actions, in contrast, involve an experience of the action as causally responding to something which is not another will or agent. Second, the experience of passivity in passive actions is a normal feature of acting. Although passive actions may involve an experience of surprise, this feeling of surprise is not an experience of exceptionality (it might be described as second-order surprise, which only appears when thinking about my own actions). This is not the case of the experience of passivity in schizophrenia, when the subject experiences the performance of the action in an abnormal way and as something pathological. In Chapter 4, I will explore whether theories of action derived from the analysis of schizophrenic disorders can contribute to a theory of passive actions.

In the following two chapters, I present different proposed explanations of kinds of actions which include some passive actions. These views follow two different strategies to explain actions similar to passive actions. The first one (Chapter 1) considers that passive actions constitute a kind of action with a structure and a causal



process different from the structure and the causal process of active actions. This strategy faces the problem of explaining why both kinds of actions are actions (if they are). The second strategy (Chapter 2) involves accepting that all actions (passive and active actions) share the same structure. The main problem for this strategy is to explain by means of the same structure why some actions are experienced passively.

**Active actions and passive actions:**

**two different kinds of performance**

One way of distinguishing between active and passive actions is causal. Passive actions are the result of a process which is different from the process which results in active actions. These two processes result in different kinds of performance. This strategy can easily explain the differences between these two kinds of action.

I will present two proposals which follow this strategy. The first one is Andy Clark's zombie-action hypothesis. He introduces a sub-personal mechanism which results in the bodily movements of an action. He claims that this mechanism explains some actions which seem to be cases of passive action. The second proposal is Hubert Dreyfus' (1993, 1995, 1999, 2002, 2007), in which he introduces a kind of action called 'absorbed coping'. Dreyfus proposes this absorbed coping as the result of the interrelation between the subject's body and a meaningful environment. Dreyfus juxtaposes absorbed coping to those actions which result from an intention of the subject.

**Andy Clark**

Andy Clark (2001, 2007) bases his theory of action on the existence of *two different neural structures* which may be involved in the performance of an action. Each of

these two structures has a different function in the performance of an action. One structure results in the conscious dimension of action while the other is in charge of bodily movements. Clark's main point is that these two systems use incompatible representations or codes and that, for this reason, they cannot exchange information or functions. Consequently, the system involved in the unfolding of movements is not influenced by the conscious subject. Clark concludes that, with respect to the bodily movements involved in an action, the subject is a *zombie*. Thus, Christopher Mole (2009) calls Clark's hypothesis 'the zombie-action hypothesis'. Clark suggests that the existence of 'zombie' movements explains, among other phenomena, some actions that are similar to passive actions: the existence of a mechanism which produces 'zombie' movements explains the experience of passivity which characterizes passive actions.

Clark first presents his hypothesis in Clark 2001, where he sets out two arguments: one based on the two-stream hypothesis of Milner and Goodale (Milner and Goodale 1995) and another based on the fact that a subject who suffers from an illusion concerning some properties of an object may still correctly perform actions involving that object. Given new empirical results, Milner and Goodale modified their hypothesis (Goodale and Milner 2004) in a way that threatened Clark's argument. Clark then proposes a solution to this problem in a second paper (Clark 2007). However, Clark's hypothesis does not seem to convince through this solution, and the literature on it seems to consider that the argument from illusion is his main argument for the zombie hypothesis.

Before presenting Clark's arguments, it is important to point out that, since Milner and Goodale's is a visuomotor hypothesis, their view only concerns bodily actions which respond to a trait of the environment (in particular, to an object), for instance, grasping a cup or returning a tennis ball.

### **Two arguments for the zombie-action hypothesis**

According to Milner and Goodale's two-visual-stream hypothesis (Goodale and Milner 2004, Milner and Goodale 1995), the visual system presents two different neural systems with different functional codings. One is the *ventral system*, which is

suitable for visual experience but not for the real-time fine-tuned control of visuomotor activity. The other, *dorsal system*, is only suitable for real-time fine-tuned control of visuomotor activity: not for visual experience. The systems are located in different brain areas and present different patterns of neuronal firing. The *ventral system* only responds to the categorical properties of the object—the firing of the neurons makes a difference if an object is, for instance, yellow or green—while the dorsal stream responds to the possibilities of action that an object presents a subject—the firing is different if the object is left-hand reachable or right-hand reachable. Because of their different coding, the systems cannot interchange functions. Clark proposes that when performing an action, the ventral system is only used for the selection of general and rational design of the action:

Conscious visual experience presents the world to a subject in a form appropriate for the reason-and-memory based selection of actions. (Clark 2001: 512)

Once the kind of action has been selected, the information is transmitted to the dorsal system, which unconsciously performs and guides the movement. The transmission of information relies on an interaction between the systems which *only* occurs in this first step of performing an action:

(...) such interaction occurs largely at the level of target and action-type selection. (...) [T]he influence is high-level and does not (...) involve the use of a rich, common (...) content-base both to guide fine-grained action and to support the phenomenal experience. (Clark 2001: 505)

To illustrate how the relation between the systems works, Clark uses a very clear analogy first presented by Goodale:

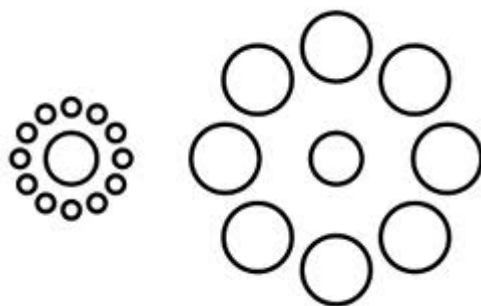
The ultimate picture, as Goodale (1998: 491) nicely notes, is reminiscent of the interaction between a human operator and a smart teleassistance device. The operator decides the target and the action-type (for example “pick up the blue rock on the far left”) and the robot uses its own sensing and acting routines to do the rest. (Clark 2001: 516)

Clark’s second paper on this topic (Clark 2007) uses another illustration for his proposal: the zombie. Once the goal and the kind of action are consciously selected,

the dorsal stream intervenes implementing and guiding movements—which are *zombie movements* for the subject.

According to Clark, the existence of a non-permeated-by-the-conscious-subject unfolding of the movements explains the following examples of performance:

- Actions whose movements are immune to some visual illusions, for instance, the Tichener illusion. In this illusion, the subject misjudges the sizes of the central discs, seeing them as different when they are the same size.



Clark mentions the experiment by Aglioti et al. (1995) which used a version of the illusion. In the experiment, although the subjects were unaware of the illusion, their motor control systems produced precision grip with a finger-thumb aperture that perfectly suited the actual size of both discs. According to Clark, the correct movement is explained by the fact that the system in charge of the movements and the system in charge of the visual experience are different systems and work independently.

- The fact that DF, a person suffering from lesions in the ventral stream, cannot identify objects by sight, although she is able to pick them up using fluent, well-oriented precision grips. The lesion in the ventral area would explain her inability to identify objects, while the ability to perform movements would rely on her intact dorsal stream.
- The fact that, when playing a tennis match, one's bodily movements to return a fast tennis serve seem to be governed by unconsciously processed information.

- The result of the experiment by Lee and Lishman (1975) in which subjects placed in a room that was gently swaying back and forth made postural adjustments, despite remaining quite unaware of the swaying of the room and of their movements.

The third and fourth examples are examples of passive actions (the third is an explicit passive action and the fourth is an implicit one).

In his second paper, Clark reformulated the hypothesis. Empirical results seem to show that, although the coding of the ventral system and the coding of the dorsal system are different, there are more interactions and there is greater exchange of information between them than he initially supposed. That evidence had also led Goodale and Milner to reformulate their hypothesis (Goodale and Milner 2004). For instance, the ventral stream—the system in charge of visual experience which was not supposed to be suitable for movement—does play a role in the unfolding of movements which involve estimated properties (for instance, weight) of unfamiliar objects. In his 2007 paper, Clark accepts these interrelations between the systems and claims that, when performing movements responding to weight, the ventral system is involved:

(...) the programming of grip force required to take account of an object's likely weight turns out to require ventral involvement too, and not just in respect of familiar objects whose weight is known and stored in memory. (...) Grip force turns out to be left to the ventral stream (...). This suggests that the computation of size that determines the applied grip force is the one carried out by the ventral (...) resource (...). (Clark 2007: 517)

This point poses a problem for Clark's original hypothesis since his argument for the zombie hypothesis is based on the impossibility of the ventral stream intervening in the guidance of bodily movement. Clark tries to save his hypothesis by claiming that, even if grip force and maybe other aspects of movement involve an interrelation between the two systems, the *trajectory of the bodily movement* is controlled only by the dorsal stream:

The ventral stream, it seems, is therefore involved in the actual programming of some aspects of intentional action, though (arguably at least) not those that determine even

the grosser aspects of the motor trajectory itself. With regard to that trajectory, even the initial heading and gross structure are programmed by the ‘zombie’ dorsal resource whose task is to ‘convert visual information directly into action’. (Clark 2007: 577)

This seems, however, to be a poor strategy to solve the problem of the interrelation between the systems. The distinction between the trajectory of bodily movement and other properties of the movement is argued for only on the basis of the lack of empirical evidence concerning the intervention of the ventral stream in the trajectory of the movement. Nothing excludes the possibility that new empirical data will also show an interaction in the trajectory. Clark does not offer an argument that would rule out this possibility and extant empirical results seem to show that such a possibility is in fact probable. Schenk and MacIntosh (2010) maintain that the specialization of the two streams is relative, and that the *ubiquity* and *extent* of inter-stream interactions suggest that we should reject the idea that the ventral and dorsal streams are functionally independent processing pathways. Thus, at this point, the argument for the impossibility of the conscious subject intervening in the movement is not well grounded.

Because of this problem, Clark’s second argument is important. The second argument is based on those cases in which a subject who falls prey to an illusion about some properties of an object (as confirmed by the subject’s reports of the properties), nevertheless correctly performs movements related to the object. For Clark, this phenomenon requires the independence of a conscious system (which results in the illusion) and the unfolding of the movements (immune to such illusions). He presents the same argument using pathological cases, such as DF, who claims not to have any visual experience of the features of an object but who is capable of performing actions responding to the features of the object. Clark concludes that there is no shared kind of representation which might allow the conscious system to determine the unfolding of the movements.<sup>1</sup>

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<sup>1</sup> Clark offers a third argument for the incompatibility of the two systems based on Evans’ dictum against isolated islands of consciousness:

an informational state may underpin a conscious experience only if (the informational state) is in some sense input to a reasoning subject. (Clark 2007: 588)

Accordingly, there is only visual experience when inputs provide information that is available for

Christopher Mole (2009) has replied to this second argument. He introduces a *more dynamic, non-categorical type of experience* which is not examined by Clark and which would not be incompatible with the visuomotor system being in charge of movements. Mole proposes that bodily demonstratives illustrate this kind of experience. A *bodily demonstrative* is the presentation of some feature of an object through a bodily gesture, for instance, the presentation of the size of an object through the aperture of the hand. According to Mole, the incompatibility between a representation for experience and a representation for movement disappears when the subject experiences the object as *that big* while grasping the object.

The only way in which DF can consciously experience forms is via the use of embodied demonstrative concepts (...). When posting a letter through a slot she consciously experiences the slot as ‘*this way round*’—where the contents of the ‘*this*’ is [sic] given by the posting gesture. (Mole 2009: 1005)

Bodily demonstratives introduce a shared representation between the system in charge of visual experience and the system in charge of movements. This shared representation, according to Mole, shows that the two systems can work as a single one. An important point is that, according to Mole, this does not mean that there is *control of the bodily movement by the conscious subject*, only that an interrelation between the systems exists:

(...) [the] mistake comes in characterizing the denial of the zombie-action picture as being committed to the claim that the reaching gesture must be caused by—and so must be preceded by—a conscious representation of the size of the disc that is being reached for. (...) The claim we want to make is that movement control and conscious experience are the work of *one and the same system*. In the case where an embodied demonstrative gives the content of an experience[,] the system that is responsible for

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the planning of, selection of and deliberation concerning actions. If the inputs are not available for such functions, there is no experience. Clark understands agency as the agent-level of goals, plans and projects, and he holds that, if there is no link with the goals, plans and projects, then there is no phenomenal experience. He lays out this argument briefly and acknowledges that it adopts some assumptions that are not commonly accepted. I also think that the argument is circular since it uses his own notion of agency. The argument has not been discussed in the literature on the zombie-action hypothesis, and in order to avoid unnecessary complications, I am not going to discuss it here.



the conscious entertaining of that content is a dynamic system of which the gesturing is a property part. (Mole 2009: 1002-1003)

### **Clark's structure of action and the explanation of some cases of passive actions**

Before going into the details of how this view might explain some cases of passive actions, I want to point out that Clark's view, in using as an explanans sub-personal processes<sup>2</sup>, seems to fall prey to what Bennett and Hacker (2009, 2003) call 'the mereological fallacy'. This mereological fallacy:

involves ascribing to parts attributes that can intelligibly be ascribed only to the wholes of which they are parts. (Bennett and Hacker 2009: 241)

(...) we deny that it makes sense to say that the brain is conscious, feels sensations, perceives, thinks, knows or wants anything—for these are attributes of animals, not of their brains. (Bennett and Hacker 2009: 242)

Accordingly, it would seem wrong to attribute intentional predicates to sub-personal entities. In order to avoid the mereological fallacy, from a person having belief *p*, one should not infer that the person's brain believes that *p*. Clark's view seems to make this kind of attribution when claiming that the ventral system determines a goal. This fallacy, according to Bennett and Hacker, involves a conceptual error which results in meaningless claims. Such attribution of properties normally associated with wholes to mere parts of those wholes is, however, common in psychology and neuroscience. Many researchers in those areas describe the functioning of the brain and of its parts by means of intentional predicates, for instance, when claiming that the brain *believes something, makes inferences, or forms hypotheses*.

Bennett and Hacker especially address their arguments to Daniel Dennett's (1987) introduction of the intentional stance. The intentional stance constitutes a research

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<sup>2</sup> In 1969, Daniel Dennett drew a distinction between, on the one hand, 'the explanatory level of people and their sensations and activities' and on the other 'the sub-personal level of brains and events in the nervous system' (Dennett 1969: 93). The former is the personal level of explanation, while the latter is the sub-personal level. The ventral system is used in sub-personal explanations of action.

methodology for the neural foundations of mental properties. The strategy it advocates to derive explanations consists of analysing rational behaviour into sub-tasks which themselves can be described as if they were rational:

(...) first you decide to treat the object whose behaviour is to be predicted as a rational agent; then you figure out what beliefs that agent ought to have, given its place in the world and its purpose. Then you figure out what desires it ought to have, on the same considerations, and finally you predict that this rational agent will act to further its goals in the light of its beliefs. A little practical reasoning from the chosen set of beliefs and desires will in most instances yield a decision about what the agent ought to do; that is what you predict the agent will do. (Dennett 1987: 17)

Dennett emphasizes the fact that the intentional stance constitutes a methodological strategy which does not describe what the brain or any of its parts really does. It is not a real description, but a way of talking.

We don't attribute *fully fledged* belief (or decision or desire—or pain, heaven knows) to the brain parts—that would be a fallacy. No, we attribute an attenuated sort of belief and desire to these parts, belief and desire stripped of many of their everyday connotations (about responsibility and comprehension, for instance). (Dennett 2009: 87)

This line of defence (Dennett 1987, Churchland 2005, Dainton 2007, Pöyhönen 2013) is pragmatic and points out that claiming that the strategy falls foul of the fallacy has implausible implications: many of the programmes that Bennett and Hacker qualify as nonsensical are successful theories. The attribution of intentions to sub-personal entities is a successful heuristic kind of explanation for describing the functional organization of our cognitive architecture, although it is acknowledged that when it comes to a theory of how functional explanations should be understood:

(...) according to my account, there is no conceptual reason prohibiting the use of intentional predicates in sub-personal mechanism descriptions, but their use has to be justified by compatibility with lower-level accounts of the functioning of the same system. (Pöyhönen 2013: 103)

That the strategy is guilty of the fallacy could also be questioned by applying the intentional predicates to a *bodily self* (as opposed to a transcendental ego or person)

which it might well make sense to attribute the predicates to. The sub-personal functions would be intentional since the bodily self would satisfy the intentional attributions<sup>3</sup>.

Apart from presenting a theory which might fall into the mereological fallacy, Clark's view presents other internal problems in its explanation of passive actions.

Clark's main point is that bodily movement is the result of a sub-personal system which is not influenced by the conscious subject. The conscious subject determines the kind of action and the general way it should be performed, but, once these aspects are determined, the unfolding of the movements can only be explained sub-personally. This would explain the experience of passivity that some actions involve. However, this strategy has problems explaining the fact that passive actions are ultimately actions. To use Clark's view to explain passive actions requires two problematic steps.

First, in order to explain passive actions, the dorsal stream *alone* has somehow to produce the result of an action (with the ventral system playing no role). Whatever the result of the ventral system is (the reason-and-memory-based determination of the goal and of the kind of action), according to this view, is not involved in passive actions. In passive actions, the subject feels that the action is the result of elements other than the reason-and-memory-based determination of the goal: the experience of passivity involves the experience of non-agential causes of the action. For instance, when returning a tennis ball, or when eating a peanut while talking in a bar, or when slowing down the car because of meteorological conditions, subjects do not feel that they determine the goal and the kind of action in a reason-and-memory-based way. However, without the role of the ventral system, there is no explanation of what determines the performing of an action. Milner and Goodale mention more primitive animals than human beings whose dorsal system determines motor goals (for instance, frogs, whose visuomotor system determines the motor goal of catching flies). Clark does not explain human action in this way and claims that the goal that

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<sup>3</sup> This kind of response follows a tradition of distinguishing two selves, especially in Scheler (1973). For a discussion of this tradition and a comparison of the views of the self of Husserl, Scheler, Wittgenstein, Nagel and Fine, see Baldwin 2013. In Chapter 5, I discuss the relation of this strategy and my view.

the movements satisfy depends on the ventral system—maybe because the kind of action the dorsal system might determine in isolation does not fit with human actions (and it probably does not fit with the actions of differently enabled animals either).

The second problematic step is that the sub-personal system has to produce a passive phenomenology. Clark's strategy to explain the special phenomenology associated with passive actions is to claim that, in some actions, the subject is aware of the fact that bodily movements are the result of a sub-personal process, and this would explain the feeling of fluidity that the subject has when playing a tennis match, for example. However, there are no elements in his view that explain this passive experience. When claiming that bodily movement has a 'zombie' character, Clark seems to claim that the output of the dorsal system does not have a phenomenological dimension. If we accept the distinction between implicit and explicit passive action (Chapter 0), it could perhaps be claimed that the experience of *implicit* passive actions is 'zombie'-like in the appropriate way (has no phenomenological output). However, this does not characterize the *explicit* experience of passivity. Could that experience be the result of proprioceptive awareness? A positive answer to this question would, first, require the introduction of an inferential process to attribute the movements detected by proprioceptive awareness to the performance of an action. Such a process is not usually introduced, as it is usually assumed that the movements of a passive action, although passive, are directly (non-inferentially) experienced as the movements involved in an action of the subject. Maybe Clark can expand on his view to take into account all these elements, but this requires further elaboration.

Apart from these two problematic assumptions that Clark has to make to explain passive actions, there is another problem in thinking of passive actions as Clark's 'zombie' movements. The zombie-action hypothesis concerns actions which are visually guided, since the representations used to control the movements are *visuomotor* representations. It creates, then, a difference between passive actions which are visually directed and other apparent passive actions which, thus, cannot be actions of the same kind, such as dancing or biting one's nails, and which do not have a clear place in Clark's theory. It is nonetheless possible to claim that the spirit of Clark's view does not make a difference between visually directed and non-visually directed actions, and that the movements of all actions are 'zombie' movements. In

this case, however, it might seem necessary to export the visuomotor arguments to all bodily movements involved in performing an action, and to find further empirical evidence of a dual system.

### **Conclusions concerning Clark's zombie-action hypothesis**

The experience of passivity, according to Clark, is explained by the fact that bodily movement is the result of a sub-personal process. He introduces an independent-of-the-unfolding-of-bodily-movement system: the reason-and-memory-based selection of actions, which explains all the personal dimensions of action. There are two problems with this dual view. First, the result of the second system is not present in passive actions. However, and this is the second problem, since the personal level is only explained by means of this second system, Clark's explanation of bodily movement does not offer an explanation of the essential personal level of actions.

If Clark wants to explain passive actions as the result of the system which results in movements, he should rather propose that the performance of an action is not determined by a conscious and rational process, but is explained in some other way (which is compatible with passive actions). He should also argue that movements are *at the personal level* or at least related to some processes at the personal level.

It should also be noted that Clark's arguments for the isolation of this sub-personal system are actually not well grounded and that there is no empirical evidence for the existence of an isolated sub-personal system which results in the unfolding of movements.

Hubert Dreyfus, whose views are presented in the following section, introduces a structure *at the personal level* to explain how the body moves in order to perform something which looks like passive action.

Dreyfus (1993, 1995, 1999, 2002, 2007) theorises about a kind of performance which he calls ‘*absorbed coping*’, and which he opposes to *intentional actions*. He illustrates absorbed coping by the opening of a door to leave a room, the eating of a peanut, or the changing of gears while driving a car. Dreyfus explains these performances as the result of *motor intentionality*. He presents motor intentionality in opposition to *representational intentionality*, which is the structure of intentional actions. The term ‘coping’ instead of ‘action’ is due both to his desire to emphasize the differences with intentional actions, which are sometimes just called ‘actions’, and to the fact that motor intentionality is the result (as I explain below) of the body’s coping with requirements (or *solicitations*, as Dreyfus says) of the environment.

*Representational intentionality* results in an intentional action by means of a representation of a final state which will be satisfied by the performance of an action. Dreyfus calls the bearers of such representation, ‘intentions’. Intentions are the result of a mental process which sometimes starts in a perceptual representation (for instance, after the perception of a red traffic light while driving, a subject forms the intention to brake). In contrast, actions which display *omotor intentionality* are characterized by the absence of representations of both kinds: representations of the final state and of the environment.

### **Motor intentionality**

The notion of motor intentionality has its origin in the phenomenological movement, in particular in the work of Martin Heidegger (1962 [1927]) and of Maurice Merleau-Ponty (1989 [1945]). The notion is characterized in detail in Merleau-Ponty’s *Phenomenology of Perception* (Ch. 3: “The spatiality of one’s own body and motility”). It refers to an intimate relation between the subject and the world—not a

physical world, but a meaningful world—which is not mediated by representations. Thanks to this relation, the body moves by responding to environmental traits (without representing them); for instance, it moves to stop the car in front of a red light, to avoid a stone, or to return a tennis ball. At this point, I can anticipate one problem for the project of explaining passive actions through motor intentionality, which also plagued Clark's view: passive actions include a range of actions which is wider than actions which respond to the environment.

Dreyfus proposes two arguments against the attribution of representational intentionality to all kinds of actions.

The first argument is based on the *relevance problem*, which applies to cases in which a subject forms an intention after perceiving a trait of the environment. This problem has its origin in a difficulty which appears in early models of artificial intelligence (AI): that of designing artefacts capable of coping with environmental change. These models have problems when designing artefacts capable of discriminating which attributes are relevant to determine correct action and how an agent may efficiently filter information in the determination of an intention. One version of this relevance problem is known as the frame problem:

(...) if each context can be recognized only in terms of features selected as relevant and interpreted in a broader context, the AI worker is faced with a regress of contexts. (Dreyfus 1992: 189)

Another characterization of the same problem is given by Michael Wheeler (2009):

Dreyfus's parable brings into view the full horror of the frame problem. An obvious computational response to the challenge of selecting appropriate (sensory or stored) information is to equip the system with internally stored relevancy heuristics (represented rules of thumb) or representations of context. But all this does, unfortunately, is push the real problem one stage back. For how does the system decide which of its stored heuristics or potentially context-specifying representations are relevant? Another, higher-order set of heuristics or representations would seem to be required. But of course the same issue will re-emerge at that higher level. This regress is one signature of the frame problem (Wheeler 2009: 329)

Because of the frame problem, it is not possible to explain how a subject, through a representation of the environment, manages to form an intention. There are many situations in which the subject perceives a red traffic light and in which the correct action is not necessarily to stop the car, for instance, when the traffic light is directed to a different lane of traffic or when the light is just changing to red and the car behind is driving too fast. The perception of a red traffic light is thus insufficient to determine an intention.

Dreyfus argues that the frame problem only appears in *representation-driven actions*. This problem disappears if actions are rather determined by a model of cognition which foregoes representations (in accordance with the motto: “the best model of the world is the world itself”, Brooks 1988: 416).<sup>4</sup>

The second argument against attributing representational intentionality to all kinds of actions is that representational intentionality cannot explain the phenomenology of some actions. Dreyfus characterizes the experience of absorbed coping as an experience of *being in the flow*—which he describes as an experience of responding to the different features of the environment without the experience of satisfying an intention:

To get the phenomenon in focus, consider a tennis swing. If one is a beginner or is off one's form [situations which require representational intentionality] one might find oneself making an effort to keep one's eye on the ball, keep the racket perpendicular to the court, hit the ball squarely, etc. But if one is expert at the game, things are going well, and one is absorbed in the game, what one experiences is more like one's arm going up and its being drawn to the appropriate position, the racket forming the optimal angle with the court—an angle one need not even be aware of—

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<sup>4</sup> Erik Rietveld (2010) argues against representational models of action in a very similar way to Dreyfus. He focuses his argument on the description of actions which are unreflective and show situation-specific discernment. By situation-specific discernment, Rietveld understands the particularity of actions that cannot be explained by any generality. For Rietveld, the figure of the *phronimos* illustrates this trait: the *phronimos* does not need to deliberate prior to acting because it sees in an immediate way the right thing to do in the specific situation, it possesses a particularly situation-specific discernment that cannot be explained by means of representations. Rietveld would argue that discernment can only be explained by the perception of meaningful properties of the environment.



all this so as to complete the gestalt made up of the court, one's running opponent, and the oncoming ball. (Dreyfus 2002: 378-379)

This experience, Dreyfus claims, cannot be explained if an action is the result of representational intentionality, since there is no experience of the content of the alleged representations.

For these two reasons, Dreyfus concludes that some performances cannot be explained by means of representational intentionality, but need to be explained by motor intentionality.

### **Absorbed coping**

Dreyfus proposes the following analysis of the actions which result from motor intentionality. There is, first, the perception of a *solicitation*, which is the direct perception—without representations—of a possible action; for instance, when faced with a red traffic light, the perception of the possible action of stopping the car. This perception creates a tension in the subject which breaks a state of equilibrium they are assumed to be in. The subject has a tendency to restore the equilibrium, which they do by performing the movement that the solicitation requires. Following the terms that Merleau-Ponty uses, Dreyfus calls the equilibrium an ‘optimal gestalt’ and the tendency to restore it ‘maximum grip’:

*Maximum grip* names the body's tendency to respond to these solicitations in such a way as to bring the current situation closer to the agent's sense of an optimal gestalt. (Dreyfus 2002: 368)

Dreyfus claims that this process does not involve representations and can explain the fact that these actions are experienced ‘in the flow’ (the subject feels that their body responds to a solicitation without this process being interrupted or mediated by the subject’s having an intention). In order to make sense of Dreyfus’ views, ‘the agent’s sense of an optimal gestalt’ should not be read as involving representations. It seems that Dreyfus only wants to refer to the state of equilibrium that the performance of the movements required by the solicitation gives to the subject.

Importantly, motor intentionality requires acceptance of the perception of solicitations, which is a kind of perception that is not conceptualized in terms of representations: when the subject perceives a solicitation, they do not represent the environment in order to infer to a possible action, but rather directly perceive the possible action. The origin of the notion of solicitations is Heidegger's notion of *ready-to-handedness* (Heidegger 1962 [1927]). It is also closely related to Gibson's notion of *affordance* (Gibson 1979, 1977).

An important question for Dreyfus' view is whether absorbed coping can be considered an action and if so, why. Motor intentionality is intentionality which appears when the body moves in order *to answer* to a solicitation from the environment. Dreyfus does address this issue. When he characterizes motor intentionality as a passive structure, he wonders how to characterize the difference between the experience of passivity of absorbed coping and the experience of passivity of, for instance, a movement caused by an electrode implanted in the brain.

(...) [W]e can see that there could be at least two kinds of passive experience, one of which could, in spite of its passivity, be attributed to me as an agent. True, in the electrode case, I am compelled to move, and so am not an agent at all. In the tennis example, however, I am letting myself be moved by the gestalt tensions I experience on the court. Such movement, while passive, is not a mere compulsion. (Dreyfus 2002: 380)

Dreyfus suggests that movements which are the result of motor intentionality are not passive in the same way as the movements caused by the electrode since they present the following two features: when absorbedly coping,

- (1) the subject is in *control* of their movements in the sense that she can stop doing what they are doing if they want to do so, and
- (2) their movements are *caused* by the gestalt formed by the agent and their situation (...) (T)hat means the situation is experienced as drawing the appropriate action out of them.

## **Difficulties in explaining passive actions as instances of Dreyfus' absorbed coping**

The experience of passivity is explained, for Dreyfus, by the fact that actions resulting from motor intentionality do not involve a representation of a final state: an intention. Since the body responds to a solicitation, this view seems capable of explaining the non-agential experience of the cause of the action which characterizes passive actions. And since it is a mechanism at the personal level, this view is better placed than Clark's to explain the personal dimensions of passive actions: Dreyfus is proposing a passive structure *at the personal level*. He avoids the problems of having to introduce conscious determination of the kind of action to perform in order to explain the personal character of the action.

This is a good point in favour of explaining passive actions by means of motor intentionality. However, other aspects of explaining passive actions as instances of absorbed coping are problematic. A first problem concerns the way Dreyfus tries to explain the fact that absorbed actions are indeed something active. A second and a third problematic aspects are the result of intrinsic problems in the characterization of motor intentionality. As I argue below, these problems suggest that Dreyfus' arguments do not demonstrate the necessity to replace representational intentionality by motor intentionality.

It is first difficult for Dreyfus to explain the fact that, although absorbed coping is passive, it is basically something performed by the subject. Dreyfus' explanation of the difference between passive actions and the movements caused by an electrode is problematic. He proposes two traits of motor intentionality which introduce something like an agent. The first one is a claim that the subject is in control of the action, which means that they are able *to stop doing what they are doing, if they want to*. However, the ability to stop movements if the subject so wills seems to be ruled out in Dreyfus' proposal as it is not clear how to conceptualize this constant possibility of stopping the action. Absorbed coping is a kind of performance in which the body responds to solicitations from the environment without any representation being involved. According to Dreyfus, the possibility of stopping this performance depends on the subject wanting to stop it. Wanting to stop an action seems, nonetheless, to require a second-order representation of the action. Motor

intentionality is then not only an intimate relation between the subject and a meaningful environment, but a relation which requires a subject who is potentially constantly representing their own actions. This point threatens Dreyfus' proposal of a kind of performance without representations. Maybe it is possible to modify Dreyfus' view by introducing some of this complexity, but I am not sure that he can introduce it without giving up some essential aspects of his motor intentionality.

There are, second, some problems related to the dependence of motor intentionality on solicitations. Dreyfus' view presents a problem that Clark's view also had, and which, in Dreyfus, seems more severe. Motor intentionality only applies to *actions in which the environment is involved* (since actions are triggered by a solicitation). On the one hand, this point requires us to introduce a difference (an artificial one) between actions in which the environment is involved (explained by motor intentionality) and actions in which it is not (explained by representational intentionality); for instance, between the action of stopping the car because of a red light and the actions of tapping one's fingers on a table or playing a piano sonata. Because of this problem, it is not easy to explain passive actions by means of motor intentionality. This point also raises internal problems for Dreyfus' view. One of Dreyfus' reasons for introducing motor intentionality has to do with the phenomenology of absorbed actions. He claims that only motor intentionality can explain the experience of *being in the flow* (which is an experience of letting the movements happen). However, no solicitation allows us to attribute motor intentionality to the actions involved in playing a sonata and thus it is not possible to explain why, in this case, there is an experience of these movements as movements in the flow. To explain these actions through motor intentionality, the subject and their corresponding mental states (for instance, their memories of the melody), should be a solicitation. This point does not seem to be compatible with the phenomenological framework, which introduces motor intentionality as an intimate relation between the subject and a meaningful world. (Motor intentionality also has problems in determining the solicitation even for actions in which the environment is involved: it seems very difficult to explain the action of typing a sentence (an action in the flow) by introducing a solicitation.)<sup>5</sup>

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<sup>5</sup> I also want to suggest that, although Dreyfus argues for this presence of solicitations through the

This environmental dependence is a trait shared with Clark's view. However, Clark did not attribute the role of triggering the action to the environment (his model depends on the presence of an intention) and this point did not seem to be essential to his view. In Dreyfus, in contrast, this dependence on the environment is essential since solicitations are what trigger action.

Some other problems for Dreyfus' view come, more specifically, from the fact that Dreyfus grounds motor intentionality in the meaningful and direct relation between the subject and the world proposed and described in the phenomenological tradition. His view, consequently, inherits the problems which go with the descriptions of that relation. For instance, a desideratum for any theory of action is to explain in a non-trivial way why the subject performs a specific action instead of a different one. Motor intentionality does not seem capable of providing this kind of explanation. Saying that when there is a pen in front of me, I perceive a solicitation to play with it which results in my movement to play with it, seems empty and trivial if it does not explain why I do not perceive the solicitation to doodle with it (which, in this situation, could be equally possible). Similarly, an explanation of why a subject picked a ball up from the floor must give a non-trivial and non-empty explanation of why they picked it up instead of kicking it. Even using all the elements that Dreyfus considers (the solicitation, the tension, and the relieving of the tension) it is not possible to determine what the subject's action will be. The only thing that seems to explain why there is one solicitation and not a different one is the performance of the action, which thus provides a circular explanation of action. Dreyfus focuses on the explanation of absorbed coping for skilful action. Maybe the fact that skilful action involves a learning process makes it easier to non-trivially explain it, since the

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plausibility of the associated phenomenology, the phenomenological picture involved in motor intentionality is not as plausible and evident as Dreyfus supposes it to be. His characterization of acting in the flow does not seem to reflect our experience. Dreyfus proposes that, when subjects do not act, they are in a state of equilibrium and that this state is broken by the presence of solicitations and restored by moving the body. In some cases, however, it seems more plausible to consider the state of equilibrium to be the state of the subject when acting; for instance, when expertly playing tennis. Accordingly, solicitations should not be conceptualized as something which breaks the optimal gestalt of the subject but as something which continues to allow the subject to act. In which case, solicitations would be something that the subject searches for (in a non-intellectual way) in order to keep on acting.

learning process might explain why the subject perceives one solicitation instead of another. There are, nonetheless, many other cases in which it seems impossible to come up with a learning process which determines the solicitation.

This problem is related to the criticisms by Fodor and Pylyshyn (1981) of Gibson's notion of *direct perception* (Gibson 1979, 1977). Direct perception, for Gibson, includes the perception of *affordances*. Gibson argues that the perception of affordances is unaided by inferences, memories or representations. For the purposes of this section, we may think of affordances as analogous to Dreyfus' notion of a *solicitation*. Fodor and Pylyshyn (1981) present some criticisms of the notion of direct perception and argue that it either requires constraints—which indeed introduce a process with inferences, memories or representations and which undermine the characterization of direct perception—or it is an empty notion:

Given the unbounded scope of the activities that perceptual systems can perform, there would seem to be nothing in the notion [of direct perception] that prevents the detection of shoes, grandmothers, genuine Da Vincis, performances of Beethoven's Kreutzer Sonata, or authentic autographs of George Washington all being possible "achievements of perceptual systems". It looks as though whatever is perceived is *ipso facto* the proper object of a perceptual system, and whatever is the proper object of a perceptual system is *ipso facto* perceived directly; we have, in particular, no independent constraints on the individuation of perceptual systems that will permit us to break into this chain of interdefinitions. (Fodor and Pylyshyn 1981: 180)

According to Fodor and Pylyshyn, to avoid the horn of directly perceiving a painting as a genuine Da Vinci<sup>6</sup>, a theory of perception should introduce an inferential

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<sup>6</sup> Fodor and Pylyshyn consider that this horn becomes absurd since it fails to distinguish between what is *picked up* and what is *directly perceived*:

The easiest way to see that constraints on the notion of invariant and pick up are required is to notice that, in the absence of such constraints, the claim that perception is direct is *bound* to be true simply because it is empty. Suppose that under certain circumstances people can correctly perceive that some of the things in their environment are of type P. Since you cannot correctly perceive that something is P unless the thing is P, it will always be trivially true that the things that can be perceived to be P share an invariant property: namely, *being P*. And since, according to Gibson, what people do in perceiving is directly pick up an appropriate invariant, the following pseudoexplanation of any perceptual achievement is always available: to perceive that something is P is to pick up the (invariant) property P which things

process—which undermines the notion of direct perception, and consequently, of affordances.

Because of these three problems (the difficulty in explaining the fact that instances of absorbed coping are actually actions, the artificial distinction between environmentally-driven actions and non-environmentally-driven actions, and the circularity of his explanation of action) which reduce the plausibility of motor intentionality as a means of explaining passive actions, we must wonder whether proposing motor intentionality as an alternative to representational intention is a useful move at all.

One of Dreyfus' reasons for not appealing to representational intentionality in the case of certain activities was the two problems that representational intentionality has in explaining some kinds of actions. Those problems, I will argue, are not as obviously problematic as Dreyfus claims. The two problems were (1) the argument based on the relevance problem, and (2) the incapacity of a representation model to explain the phenomenology of absorbed coping.

Let us start with the second: the failure to explain the phenomenology of some actions. I have already pointed out that the phenomenology of acting in the flow seems to be wider than the phenomena explained through motor intentionality and that Dreyfus should accept that some actions which, for him, are the result of representational intentionality, are also experienced as performed in the flow. For this reason, this argument is less conclusive than he seems to think.

The first problem was that of relevance. It was the problem of selecting the contextual information relevant and appropriate to determine an action. Proposed solutions to this problem pushed the real problem one stage back: a system determines the relevant information by means of other contextual information. I think, however, that it is important to point out that this problem only arises with a very specific kind of representation: *detached representations*. It is possible to work with other kinds of

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of that kind have. So, for example, we can give the following disarmingly simple answer to the question: how do people perceive that something is a shoe? There is a certain (invariant) property that all and only shoes have—namely, the property of being a shoe. Perceiving that something *is* a shoe consists in the pickup of this property. (Fodor and Pylyshyn 1981 : 142)

representation which seem to avoid the relevance problem in the same way that motor intentionality avoids it. For instance, the stone to be avoided while walking might not be the object of a detached representation of *a stone with such-and-such a shape, weight, toughness, etc.*, but rather as *something to avoid in such-and-such circumstances while performing such-and-such movements*. Pacherie (1998) suggests that one kind of representations which intervene in action are *pragmatic representations*, which treat objects as causally indexical, like *easy to handle with one hand*. Dreyfus' argument against representational intentionality would not affect this kind of representation because the problem of selecting the relevant aspects to determine the correct action would not arise. The possibility of this kind of representations is what Nancy Salay (2009) puts forward against Dreyfus' position:

The frame problem argument licenses only the move to views on which meanings arise for systems out of their on-going inter-relations with their environment; it is silent about the nature of those on-going inter-relations. We need an independent argument for the claim that the non-representational feature of background coping is essential to it being an embodied relation. In other words, Dreyfus needs to show us that being a representational relation and an embodied relation are at base incompatible. (Salay 2009: 1201)

Similarly,

(...) action-oriented representations don't usher in the frame problem in the way that Dreyfus claims all representations do. Action-oriented representations inherit their context-embeddedness from the intrinsically context-dependent mechanisms in which they figure, which also means that there is no need for context to be accessed via the explicit internal representation of massively holistic networks of significance. (Wheeler 2010: 335)

The possibility of this kind of representation suffices to dismiss Dreyfus' arguments against using representational intentionality to explain absorbed actions.

### **Conclusions concerning Dreyfus' hypothesis**

Dreyfus wants to explain a kind of passive action by introducing a structure which is not the result of intentions. He grounds this view of actions in the phenomenological



and meaningful relation between the subject and the environment (motor intentionality) which is a relation at the personal level. Unlike the case of Clark's argument, this structure is thus not problematically sub-personal. Dreyfus' view offers an interesting phenomenology and explains the most important phenomenological trait which I used to characterize passive actions: the fact that these actions do not seem to respond to an intention of the subject, but to something else. However, he does not manage to explain other important aspects of this phenomenology, for instance, the experience of being in the flow for actions in which no perception of affordances is involved; and, very importantly, the experience of *performing* something (as opposed to the experience of a nervous tic). Furthermore, since his other reasons for introducing motor intentionality do not seem to be conclusive, his introduction of motor intentionality does not seem well-grounded.

I think that the two main problems with this view are the fact that, by explaining actions through motor intentionality, he introduces a structure (a) which is *environmentally-driven* (which results in an action that should be wider than the environment and include mental states); and (b) in which the subject disappears. Instead of a dependence on the environment, the structure presented should be the result of something related to the subject, although in a special way in order to explain the experience of passivity. Dreyfus wants to avoid the introduction of the subject since that would result in a representational picture. However, the subject (although not the cause of the action) seems to be a necessary element to explain actions and to avoid problems (a) and (b).

### **Conclusions of the chapter**

In this chapter, I have presented two ways of explaining passive actions which claim that active and passive actions are different kinds of actions; and that what explains passive actions is different from what explains intentional actions. Clark bases the explanation of the former actions on the existence of a sub-personal visuomotor system; and Dreyfus, on the non-representational response of the body to meaningful features of the environment. Both authors propose, in different ways, to explain passive actions by avoiding *a subject who intends to perform the action* (although, in

Clark, this condition seems to appear and disappear). The features of passive actions are thus explained by the lack of a subject having a representation of the action to be performed. A difference between the strategies is that although Dreyfus clearly presents two different kinds of structure of actions, Clark presents just one kind of structure which applies to all actions (although to explain passive actions, Clark's view requires that the sub-personal alone results in an action).

When exploring Clark's view, I concluded that a sub-personal process was not sufficient to explain passive actions. However, the way in which Dreyfus presents the process at the personal level is not satisfactory either. It relies on a meaningful relation with the environment which results in performance and which cannot introduce the agent and applies only to environmentally-driven actions. Neither Clark nor Dreyfus manages to replace the agent who intends to perform an action by something which can explain the fact that these actions are indeed actions, in a satisfactory way.

It is important to point out that the two views considered in this chapter have problems in delimiting the range of actions that is their explanandum. Clark does not offer a clarification of this aspect, and the following ambiguities remain: Is he talking about movements or about actions? Does his theory apply to all actions or only to those actions that involve a feeling of passivity? Is he proposing a theory only of actions in which perception is involved or of all actions? Meanwhile, in Dreyfus, this point is also problematic. He aims to explain the phenomenology of actions in the flow, but his model only explains actions in the flow in which solicitations are involved. I think that, for these reasons, their delimitations do not threaten my characterization of passive actions. What they want to explain is what I have called 'passive actions', and their delimitations of the explanandum are not the result of some previous delimitation, but the result of theoretical frameworks which do not allow them to include all cases of passive actions.

In the next chapter, I present some views which hold that it is possible to explain passive actions by means of *a subject who intends to perform them*. These views argue for a continuity between passive actions and active actions. For this reason, they can easily explain an important feature of passivity which neither Clark's nor

Dreyfus' accounts were capable of explaining: the dynamism between implicit passive actions, explicit passive actions and active actions (Chapter 0).

**Active actions and passive actions:  
the same kind of performance**

A second strategy adopted to explain what I have called ‘passive actions’ considers that all actions that a subject performs are essentially actions of the same kind, and that the possible differences between the supposedly different kinds of action (for instance, between passive and active actions) should be accommodated in a single structure of action which guarantees that action is something rationally performed by a subject. The three views that I am going to present hold that what all actions share in common, which explains why an action is an action, is the subject who has a *representation of the movements* necessary to perform the action. These theories propose modifications of those views which explain an action as something caused by a subject’s representation of an action to perform it. For these three views, what causes the action is not a representation of the action, but of the movements to be carried out. In order to ensure that there is *a subject* who performs the action, and that the action is a phenomenon at the personal level, this mental state is, for some authors, required to be conscious.

I am first going to present the view of Kent Bach (1978), who proposed an explanation of what he calls ‘*minimal actions*’: those actions which, apparently, are performed without a conscious intention to perform them. Bach holds that all actions (including minimal actions) are actions since they involve *executive representations* of movements. John Searle (1983) follows a similar strategy. He calls ‘*intentions in action*’ the representation of the movements which results in the action being performed. I will also present the proposal by Elisabeth Pacherie (2008), according to which all actions minimally share *motor intentions*. Both Searle and Pacherie call this entity by means of which the subject causes the action, ‘intention’. It is important to note that this notion of *intention* is a technical one which does not carry the usual

meaning of the term. Intentions understood in this technical way have *executive properties* (they are considered to be mental states which necessarily cause actions or movements) and sometimes the subject is *not aware* of them.

## Kent Bach

Kent Bach starts his paper on minimal actions (Bach 1978) by pointing out two problems which arise if actions are explained as something caused by a conscious intention to perform an action, a view which he calls ‘causalism’.

The *first problem* is the problem of explaining ‘*minimal actions*’: a kind of action in which there is apparently no previous intention or decision to perform the action. He gives the following examples of minimal actions: scratching an itch, doodling and tying a shoelace. Minimal actions are opposed to *intentional actions*: those actions preceded by an intention or a conscious mental state which seems to cause and to justify the action. Minimal actions are the only kind of actions that infants or non-human animals might be able to carry out.

Some actions are not, under any description, intentional or, for that matter, witting, willing, willed, wanted, deliberate, or rational. Actions lacking all of these features—let’s call them *minimal actions*—(...) are the only kind of action within the psychological capacity of modestly endowed animals, and a great many of the actions of sophisticated beasts like ourselves are minimal. Existing versions of Causalism fail to account for minimal actions. (Bach 1978: 362)

Although minimal actions are not intentional actions, Bach claims that they are actions in the same way in which intentional actions are:

(...) there is nothing essentially different, *qua* action, between intentional action and nonintentional action. There may be important differences, but these do not concern what makes the behavior count as action. (Bach 1978: 374)

What an action is, should consequently be explained without introducing intentions or decisions.

The *second problem* for causalism is that it only manages to explain the initiation of the action not its being carrying out.

A fact commonly overlooked by causal theorists is that there is more to the causation of an action than its initiation, namely, how it is carried out. A causal theory of action would say something not only about how an action gets started but also about how it gets done. (...) Even when a person forms an intention to do something immediately, thereby initiating the action, the rest of the action doesn't just happen by itself, riding the crest of the momentum generated by the intention. The rest of the action has to be performed. Even if we credited the persistence of the intention with the continuation of the action, how the action is carried out would require further explanation. After all, an action can be performed in different ways, with different degrees of skill, control, effort, and attention. (Bach 1978: 363)

Bach proposes that the solution to both problems is the same: the presence of a set of representations during the carrying out of the action, which (1) would be shared by all actions, both intentional and minimal actions, and which (2) would explain the execution of the action. He calls this set of representations '*executive representations*' and their presence is sufficient to cause an action. The set includes two kinds of representations: representations of the movement to be carried out: *effective representations*; and representations of the movement actually performed: *receptive representations*. A cycle of effective and receptive representations explains the performance of an action: an effective representation causes the movement, which causes a receptive representation, which causes another effective representation, and so the sequence goes on:

I conceive of action as involving cycles of effective representations, bits of behaviour, and receptive representations, in which there is a causal relation between each effective representation and bit of behavior, each bit of behaviour and receptive

representation, and each receptive representation and the next effective representation. (Bach 1978: 366)

Bach illustrates this sequence of representations with the following example (to make the illustration clearer I mark with SMALL CAPITALS effective representations and I underline receptive representations):

Seeing that the door is closed, he KINESTHETICALLY REPRESENTS his right arm reaching for the doorknob. This representation persists as he sees and feels his hand approaching the doorknob. As his hand approaches it, he KINESTHETICALLY REPRESENTS his fingers grasping it, and as he sees and feels contact, he REPRESENTS his wrist turning and feels the doorknob turning until he hears a click of the latch and a sudden decrease in the resistance of the door. He REPRESENTS his arm pushing the door and sees and feels it opening as he walks through. (Bach 1978: 369)

Bach proposes that what links the representation of the actual movement performed and the representation of the movement to be carried out, is not practical reasoning but *practical knowledge*.

The sequence of effective and receptive representations is coherent and reflects the presence of underlying practical knowledge, even though I am not conscious of applying that knowledge. I know, among other things, that the way to relieve itches is to scratch, that the way to reach behind the upper part of my back is to reach over my shoulder, and that I can feel where I am scratching. (...) The sequence is tied together by my practical knowledge (...). (Bach 1978: 370)

Importantly, executive representations are representations whose content is *experienced* by the subject:

I claim that action (...) essentially involves this experience of what is being done and of what is to be done next, and that it counts as action only if this experience causally interacts with it. (Bach 1978: 366)

This point is essential, in Bach's view, since he wants to have a theory in which the subject's being in a conscious state causes the action. He calls his view 'Representational Causalism', since he considers that he keeps the main motivation of causalism:

(...) I believe Causalism to be fundamentally correct (...) because of the basic idea behind it, that behavior counts as action because, and only because, it occurs as a result of something psychological on the part of the agent. There is a special relation between the psychological state of the agent and the behavior in virtue of which the behavior qualifies as action. (Bach 1978: 362)

In the course of doing something, one does not observe one's bodily movements as if they were occurring independently of that awareness, as would be the case if, for example, someone else were moving one's arms. (Bach 1978: 365-366)

### **The phenomenology of minimal actions**

In order to evaluate whether Bach's view can explain the kind of actions that I called 'passive actions', it is first necessary to present Bach's explanation of the phenomenology of minimal actions. Bach considers that the experience of a minimal action, in contrast to the experience of an intentional action, does not include either the experience of *performing an action* or the experience of *oneself as the agent of an action* (Bach calls the latter, 'the sense of agency'). These two experiences jointly result in an experience of the kind *I am performing A*, which only characterizes the experience of intentional actions: it is not part of the content of the experience of a minimal action.

Bach suggests that the experience of minimal actions, in contrast, consists of *the awareness of executive representations causally interacting in the action*:

When you are moving them [one's arms] yourself, at each moment you are aware not only of where they are but also of where they are going, and not as if you were predicting where they would go. I claim that action, unlike other behavior, essentially involves this experience of what is being done and of what is to be done next (...). (Bach 1978: 365-366)

Bach immediately observes that this view of the awareness of minimal actions is too strong: the representation of where one's arms are and where they are going cannot be conscious in all actions. In fact, he holds, inconsistently, that to explain the phenomenology of some actions, executive representations do not always have to be conscious and that awareness of them should be minimized:



[t]his awareness might be rather vague, say if you were just stretching (...). (Bach 1978: 366)

Of course, some actions are more routine than others, requiring little if any attention, no decisions or flexibility during performance, hence minimal awareness. (Bach 1978: 368)

Bach is not clear as to whether such minimal awareness, which is not characterized in detail, can maintain the psychological relation between subject and action, which is the essence of Bach's representational causalism, or whether it manages to explain *the performance of an action by a subject*. I see this as an important problem for Bach's view.

### **Problems (I): tensions in this version of representational causalism**

An important problem for Bach's theory is thus that he actually seems to be characterizing executive representations in two different ways, which are inconsistent with each other. One way focuses on the fact that the subject is aware of the content of the executive representations and on the causal role of this awareness. The other focuses on the function of the executive representations in guiding the execution of the movements and seems to require a sub-personal characterization of them. Apart from the internal tension that these two ways of characterizing executive representations present in his theory, neither of them alone seems capable of explaining action.

I now explore the first interpretation of executive representations, which focuses on the subject's being aware of them. For causalism, a conscious mental state representing an action, for instance, an intention, is a necessary condition for the performance of an action. Bach proposes changing this necessary condition for the awareness of executive representations. However, (a) as Bach himself points out, this awareness does not seem to be a necessary condition, and (b) it is not an intuitive view of what it means to perform an action.

First, *awareness of one's movements* is normally *vague*. It can even be *very vague*. It is normally this way both in intentional actions and in minimal actions. Because of

this vagueness, our awareness of the movements involved does not seem to suit the cycle of representations that Bach presents: a cycle composed of the awareness of the movement to be carried out and of the actual movement performed. Even when it is not minimal, awareness of the movements does not include a dynamism between these two kinds of representations. Given this, how is it possible to understand the claim that the subject's experience of the movements causally interacts with the movements in the action? How is such a causal relation possible, according to this view?

Apart from the introspective implausibility of Bach's view, the claim that awareness of the movements causally interacts with the movements enters into tension with some empirical results according to which, in some cases, the conscious representation of the movement causes the movements. This problem also appeared in Clark's account of actions that are correctly performed by subjects suffering from a visual illusion, and was one of the reasons for Clark to deny that conscious representations cause the movements involved in an action. How, in such cases where the subject consciously represents incorrect movements to be carried out, does the subject manage to perform an action correctly? Clark presented an experiment in which the Tichener illusion was involved. In that experiment, subjects correctly performed an action despite the visual illusion which affected their perception of the properties of an object and consequently the representation of the movements to be carried out was illusory. To deal with this problem, Clark abandons the causal role of the conscious visual mental state. A similar experiment is presented by Anthony Marcel (Marcel 2003b) in which subjects were asked to move their right arm to a point over a table. They could not see their arm (which was hidden by the table) and, because of vibrotactile stimulation, they thought their right arm was perpendicular to their body, although it was in fact parallel to it. According to the supposed position of the arm, in order to reach the target, the subjects would have to move their arm anticlockwise; but according to the real position, they should move it clockwise. The results showed that, although the subjects reported having a conscious intention to move their arm anticlockwise, they actually moved their arm correctly: clockwise.

These results present a problem for any theory which claims that conscious representation of the movements to be performed results in those movements.

Secondly, awareness of executive representations is not sufficient to explain what it actually is to perform an action. Traditional forms of causalism propose an intuitive explanation of why the subject is the *agent of the action*: they conceptualize the agent as the element which causes the action *by intending to perform it*. Such an intention usually also rationalizes the action. However, our intuitions of a relation between being aware of movements and agency, while relating the conscious subject with their action, are less strong when it comes to explaining why an action is an action. There are roles that are usually attributed to the agent which cannot be explained if the agent is only conceptualized by means of the awareness of executive representations, for instance, *the determination of the general action to be performed*, or *the possibility of stopping an action*: it is not clear how an executive representation explains determination of the action here, for instance the general action of drinking a glass of water, or what mechanism always affords the subject the possibility of modifying the unfolding of the action.

In short, first, the subject normally has no conscious representation of the movements to be performed. Sometimes, the subject is under an illusion and incorrectly represents the movements to be carried out. For this reason, I hold that the causal conscious relation between the subject and the bodily movement that Bach introduces does not exist. Moreover, even if that relation does exist, it has problems grounding the explanation of the action and of the agent. It cannot explain what it is for a subject to perform an action. Neither does this view explain important aspects of the action, for instance, the determination of the general action, or its agential control. It is true that Bach may not want to explain these two elements via the conscious subject (minimal actions might be actions in which the conscious subject does not determine the action and does not control it), but then his view would be incomplete, since these two aspects are not explained.

Bach does not seem to be aware of the second problem: the fact that awareness of executive representations is insufficient to explain the personal dimension of action. However, because of the first problem, he sometimes proposes a second way of interpreting executive representations. Thus, although Bach wants to endorse a version of causalism, he presents some features of executive representations which make them not very suitable as objects of awareness. Those features include

executive representations being non-propositional, not having the form of intentions, being sensuous (they do not represent what the movements are doing but the movements as movements), not exhibiting discreteness but continuity, and not being conscious:

they [executive representations] are not propositional attitudes or episodes and cannot be rendered by sentences. Rather, they are sensuous in character (...). (Bach 1978: 371)

(...) we should not think of them as discrete, individually packaged units. (Bach 1978: 371)

To be truer to the facts, we should perhaps speak of effective representations, behavior, and receptive representations that undergo continuous modification in causal interaction (Bach 1978: 366)

All this [the movements involved in scratching my back] goes on without any conscious awareness on my part. (Bach 1978: 369)

By introducing these features, Bach hopes to make his view suitable as an explanation of the function of executive representations in the unfolding of movements. According to this view, executive representations are in charge of the action even if the subject is not aware of them. Joëlle Proust (2003a) proposes that Bach's executive representations should be read as *subintentional entities*, or more specifically as motor commands:

Effective representations provide the motor commands, whereas the receptive representations correspond to the reafferences used as feedback for corrections or termination of the process. (...). Although Bach does not call his executive representations "motor representations", he insists that they are not propositional in form, and not necessarily linguistically coded; nor do they necessarily imply any intentions or beliefs ([Bach] 1978, 366). (Proust 2003a)

This interpretation of executive representations cannot easily be accommodated by Bach's representational causalism. If he follows this second interpretation of executive representations, he cannot maintain his characterization of actions as something essentially caused by *something psychological on the part of the agent*, and needs to come up with another explanation for what it means to perform an

action. This view, thus, presents problems similar to those encountered by Clark's zombie hypothesis—which Clark solved by introducing the subject's conscious determination of the goal and the kind of action (a point which, as we have seen, made it difficult for him to explain passive actions).

Consequently, neither of two characterizations of executive representations (as conscious representations or as sub-personal entities) seems capable of explaining what it actually is to perform an action.

### **Problems (II): awareness of minimal actions**

Bach uses his view to introduce a kind of action called 'minimal action' which is characterized by a lack of intention. According to him, this lack of intention is explained by the fact that when such actions are performed, the concept of self and the concept of action—concepts which are only possessed by adult humans and which are required to have intentions—are not involved.

Although the examples he gives of minimal actions seem to be examples of passive actions, I am not sure that his characterization of the awareness of minimal actions includes the characterization of passive actions given above. Bach only seems to have one possible explanation of implicit passive actions: he claims that in those minimal actions in which subjects do not experience their movements, they do not experience their action (a claim which actually enters into tension with his version of causalism). Although it seems that something phenomenologically richer needs to be proposed to explain implicit passive actions fully, we could accept that this is the beginning of an account.

But how can Bach's view deal with *explicit passive actions*? Bach suggests that the experience of a minimal action is the experience of executive representations causing the movement, which, for Bach, is the experience of being an observer of the action (since it excludes the experience of the self and of the action). However, it is not clear that explicit passive actions can be explained through the lack a sense of agency or the experience of performing an action. Imagine a person who is expertly playing a tennis match and is feeling their movements in detail. They experience that they are

performing this action. The explanation of the phenomenology of minimal actions does not need to exclude this experience. In Chapter 0, I suggested that passive actions involved the experience of the action responding to *external elements*, and the experience of executive representations causing movements does not seem to be an experience of an external element causing the action.

One important feature of passive actions was also the fact that they are embedded in a conscious dynamism between implicit passive actions, explicit passive actions and active actions. When an agent becomes retrospectively aware of her past passive actions, their passivity becomes explicit and the following actions in the same sequence become explicit passive actions or active actions. The explanation of this phenomenon of switching would require a dynamism between the different representations involved in the action (executive representations and intentions) which is not introduced by Bach.

## **Conclusions**

Bach presents a theory of action that deals with what he calls ‘minimal actions’. Such actions do not require any appeal to the traditional notion of intention. He proposes to ground the relation between the subject and action in executive representations: a conscious sequence of representations of movements actually performed and of the movements to be carried out. This new conceptualization of the relation is justified by: (1) the fact that what seems minimally to be shared by all actions are bodily movements, and (2) a relation between the subject and the action mediated by conscious representations (Bach wants to keep on conceptualizing the action as something which is due to a conscious subject and for this reason he does not give up conscious representations).

However, first, the causal relation between the conscious subject and the sequence of movements does not exist. What exists are sub-personal motor representations which do not seem sufficient to explain the relation between an agent and the performance of an action. Moreover, secondly, this view does not manage to explain the passive phenomenology of passive actions, since what causes the action is ultimately the subject through executive representations. This experience seems to count as the

experience of the subject causing their own movements through representations of movements, which does not explain the experience of passivity. Such an experience, if minimized, could explain implicit passive actions, but there is no explanation of the explicit experience of passivity.

In what follows, I will present two other theories which also deflate the notion of intention and ground the relation between the subject and the action in representations of bodily movements. They will expand on some underdeveloped aspects of Bach's view and will present alternative views concerning some of the points which are problematic in his view.

### **John Searle**

John Searle, in *Intentionality* (1983), proposes that what makes all actions count as actions is that they are the satisfaction of an *intention*. The action of voting for Jones is an action since it is what satisfies the intention of voting for Jones.

Searle proposes that there are two kinds of intentions involved in actions: *prior intentions* and *intentions in action*. Prior intentions present the following features:

- they are formed before the action,
- they represent and cause an action, and
- they are not necessary for acting.

Intentions in action, in contrast:

- hold while the action is being performed,

- present and cause the movement, and
- are essential to action.

The fact that intentions in action *present* the movement allows one to conceptualise the subject as the agent of the action. *Presentations* are a kind of *representation* in which the conscious subject has *direct access* to what is being represented. Since intentions in action represent the movements to be caused, Searle is thus proposing that the relation of causality between intentions in action and the resulting movements is not independent of the subject's direct access to the content of the intention, which ultimately means that the experience of the movement is a cause of this action:

(...) Raising your arm (...) characteristically consists of two components: the experience of raising your arm and the physical movement of the arm, but the two are not independent (...). (Searle 1983: 87)

When I raise my arm I have a certain experience (...). (...) [I]f my arm goes up, but goes up without this experience, I didn't raise my arm, it just went up. (Searle 1983: 88)

This step is similar to Bach's claim concerning the causal role of the awareness of executive representations.

All actions present intentions in action, but not all actions have prior intentions; in *unmotivated*, *spontaneous* or *automatic* actions there is intention in action but no prior intention:

(...) suppose you ask me, "When you suddenly hit that man, did you first form the intention to hit him?" My answer might be, "No, I just hit him". But even in such a case I hit him intentionally and my action was done with the intention of hitting him. I want to say about such a case that the intention was *in the action* but that there was no *prior intention*. (Searle 1983: 84)

Searle gives two other examples of actions in which there might be only intentions in action but no prior intentions:

For example, suppose I am sitting in a chair reflecting on a philosophical problem, and I suddenly get up and start pacing about the room. My getting up and pacing



about are clearly intentional actions, but in order to do them I do not need to form an intention to do them prior to doing them. I don't in any sense have to have a plan to get up and pace about. Like many of the things one does, I just do these actions; I just act. (Searle 1983: 84)

The second example presents an almost automatic action embedded in a more complex activity:

(...) suppose I have a prior intention to drive to my office, and suppose as I am carrying out this prior intention I shift from second gear to third gear. Now I formed no prior intention to shift from second to third. When I formed my intention to drive to the office I never gave it a thought. Yet my action of shifting gears was intentional. In such a case I had an intention in action to shift gears, but no prior intention to do so. (Searle 1983: 84-85)

Searle analyses some aspects related to the experience of these actions. He proposes that the basic content of this experience is the intention in action:

the Intentional content of the intention in action and the experience of acting are identical. Indeed (...) the experience of acting just is the intention in action. (Searle 1983: 91)

However, Searle observes that in some cases there is no experience of acting. In those cases, the intention in action is not experienced.

Sometimes one performs intentional actions without any conscious experience of doing so; in such a case the intention in action exists without any experience of acting. (Searle 1983: 92)

He talks about *blind sight* as an equivalent situation to the case in which the subject performs an action without any experience of doing so. In blind sight, the subject does not have a visual experience of an object but accurately describes its properties and achieves a level of accuracy in guessing its properties higher than would be expected from chance alone.

Another difference between actions caused by prior intentions and other actions is that only the former rationalize the action, while the intention in action is only the cause of the movement: it does not rationalize it. Accordingly, only prior intentions

motivate the subject to perform an action. The intention of voting for Jones justifies and motivates the subject to vote for Jones. This is not the case for intentions in action:

If I am asked, “Why did he raise his arm [an action]?”, it sounds odd to say, “Because he intended to raise his arm [an intention in action]”. (...) But notice it doesn’t sound at all odd to specify the intention in action as the cause of the movement: why did his arm go up? He raised it.

### **Applying Searle’s intentions in action to passive actions**

Searle’s view introduces a kind of action characterized by the fact that it is performed without prior intention and in which only intentions in action are involved.

In order to evaluate the plausibility of his view as an account of passive actions, let us first evaluate its phenomenological plausibility. At first sight, this view is interesting when it comes to explaining passive actions since it introduces a kind of action performed without prior intention. However, Searle’s positive characterization of the experience of actions which lack prior intentions does not match the experience of a passive action. The problem is that Searle characterizes the experience of such actions as *the experience of the intention in action*, which is the experience of the subject causing the movements. This is not the experience of a passive action—which I characterized as the experience of an action that is not caused by the subject, but which responds to other external elements.

In order to explain some difficult cases in which this experience of intention in action is not present, Searle proposes that, in such actions, there is no experience of action. As in the case of Bach’s view, I could argue in favour of Searle’s view that this situation could explain what in Chapter 0, I call ‘implicit passive actions’ (those actions that the subject experiences in an indeterminate way and which, when the subject becomes retrospectively aware of, the subject explicitly experiences as passive, for instance, the action of tapping my fingers).

However, the problems with this are similar to the problems I presented for Bach’s view. First, this suggestion supposes a *tension* within Searle’s proposal—according

to which, to cause an action, the experience of acting is necessary. Second, Searle claims that the lack of an experience of the action is similar to the blind sight cases in which subjects are able to guess what they are “seeing” even if they do not have the associated visual experience. However, blind sight seems to be different from the experience of *implicit passive actions*. The main difference between implicit passive actions and blind sight is that, while in blind sight the subject, even while paying attention, is not aware of what they are seeing and is only able to *guess* it, in implicit passive actions, when paying attention, the subject is aware of their own action.

Meanwhile, it is not clear whether Searle could provide an explanation of *explicit passive actions*. In these actions, the subject explicitly experiences their passivity (for instance, when returning a fast tennis ball or when expertly playing an instrument). In contrast to Bach, Searle does *not propose* to explain the special phenomenology of explicit passive actions through the lack of the concepts of self and of action, and (according to Bach) the consequent experience of being an observer. However, I find Searle’s observations concerning the fact that only prior intentions rationalize the action interesting. The experience associated with the intention in action would not be the experience of an action performed for a reason, but the experience of the intention in action *causing* movements. Although this trait is very interesting and it seems that passive experience involves an experience of the action *happening* or *being caused* rather than the experience of *being performed by reasons*, I think that, in passive actions, what is experienced as a cause is not an intention in action causing specific movements. For instance, I do not feel that the intention in action to move my leg causes the movement to brake the car, but that it is because of the presence of the red traffic light that I brake the car. The causal relation is between the traffic light and my movement, and this relation is not introduced in Searle’s account. Thus, although Searle introduces a causal relation, that relation does not seem to be one which might explain passive actions. Thus, it seems that Searle’s view ultimately does not manage to explain the special phenomenology of passive actions.

Finally, there is a problem like one already mentioned for Bach’s view, intentions in action do not seem sufficient to provide a complete explanation of the relation of the subject with their action. The role of the subject in the action includes other elements apart from the experience of acting; for instance, the possibility of the agent

controlling and changing the unfolding of the action. Intentions in action can indeed explain the fact that the subject allows their fingers to follow a musical sequence. But how can it explain the constant possibility of the subject rationally changing the unfolding of that sequence of movements or the possibility of stopping the performance? Intentions in action cause the sequence of movements, but they are not characterized in a way which offers an explanation of these elements. Neither is the general determination of the action explained. Intentions in action represent the movements to be performed. However, the same movements can perform many different actions. Intuitively, the relation between a subject and their bodily movements seems to be mediated by a representation of the action. Intentions in action, as they are presented, cannot explain that relation. For this reason, intentions in action seem to be insufficient to understand the relation of the subject to their action. The agent seems to be related to the performance of the action in a richer way than only by means of a representation of the movements to be performed.

## **Conclusions**

Searle presents a minimal structure to explain a kind of action which can be identified with passive actions. His strategy for explaining this kind of action is similar to Bach's: he deflates the relation between the subject and the action, and claims that this relation is grounded in intentions in action, and not in prior intentions. For this reason, the problems encountered by Searle's view are very similar to those encountered by Bach's. Unlike Bach, however, Searle does not analyse intention in action as a sequence of representations of the movements to be carried out and of the movements actually performed, nor does he explain the lack of previous intention as being due to a lack of the concepts of self and of action.

Since Searle does not endorse Bach's sequence of representations, his view is more phenomenologically plausible. However, Bach introduced that sequence to explain the carrying out of movement during the action. In that sense, we might consider that Searle's proposal leaves the issue of how the intention in action controls the carrying out of the movement unexplained, as it does the adaptation to the world. Furthermore,

although Searle's intention in action is more phenomenologically plausible, it still falls foul of one of the same problems as Bach's representations. Because of the existence of actions that are performed with only a vague experience of the movements involved or when the subject is suffering from illusions, it is not clear that the relation that intentions in action present really exists. Indeed, what Searle calls 'the experience of acting' or the intention in action seems to be a result of performing an action rather than its cause.

Finally, Searle cannot explain the experience of passivity. He analyses the phenomenological dimension of action in a different way from Bach. For Bach, it was the lack of the concepts of agency and of self which resulted in the experience of being an observer. Searle only claims that minimal actions are not rationally caused since, in cases where only intentions in action are involved in an action, the subject still experiences the action as *causally* performed. However, although passive actions seem to involve an experience of causality, the experience of passive actions is not the experience of the intention in action causing the action.

I think that, from what we have seen of Bach's and Searle's views, we can conclude that they seem to be right in wanting to eliminate prior intentions as necessary for all actions, but that what they propose as a substitute for them is problematic. They propose a conscious representation of the movements which result in the action. It is not clear that these representations cause the movements (when the subject has only a vague experience or is under an illusion) and they cannot assume all the roles of the subject in the action; for instance, the possibility of modifying the unfolding of the action or of stopping it. Maybe what finally minimally explains actions is something related to bodily movement; but I do not think it is the kind of conscious representations that Bach and Searle propose.

Elisabeth Pacherie (2008) also considers that what characterizes an action is the subject's having an intention to perform the action. In contrast to Bach and Searle, she proposes that there are *three* possible types of intentions involved in every action (not all them are necessary): distal intentions (or D-intentions), proximal intentions (or P-intentions), and motor intentions (or M-intentions). Each of these intentions plays different functions in the action.

D-intentions are those intentions which correspond to the ordinary meaning of 'intention', for instance, the intention to eat a piece of cake after finishing writing. Pacherie describes D-intentions through the functions they fulfil in an action. They are

[t]erminators of practical reasoning about ends, prompters of practical reasoning about means and plans, and intra- and interpersonal coordinators. (Pacherie 2008: 183)

D-intentions work somewhat independently of the situation and of the specific environment where the subject is acting. P-intentions, in contrast, plan the action embedded in the situation and the environment of the subject.

A P-intention often inherits an action plan from a D-intention. Its task is then to anchor this plan in the situation of action. (...) In other words, it consists in moving from an abstract schema (D-intention) to a schema that meets the brief set by the D-intention but is also constrained by current perceptual information. (Pacherie 2008: 184-185)

Pacherie maintains that there are some actions in which there is no clear D-intention and which seem to work only through P-intentions:

Some decisions to act are made on the fly and do not warrant a distinction between a D-intention and a P-intention. (Pacherie 2008: 189)

Meanwhile, M-intentions are those that involve what neuroscience calls ‘motor representations’ (and which entered into my discussion of Bach’s view above):

Work in the cognitive neuroscience of action shows that there also exist levels of guidance and control of an ongoing action that are much more specific, responsible for the precision and smoothness of its execution, and operate at a finer time scale. (Pacherie 2008: 189)

A salient feature of M-intentions is that, unlike P- and D- intentions, they present limited cognitive penetrability:

M-intentions lack some of the features traditionally associated with intentions—for instance, their contents are not propositional and we may not be aware of them or have only partial access to their content. (Pacherie 2008: 189)

Neither M-intentions nor P-intentions represent actions; they represent movements.

(...) [O]nly D-intentions fit the traditional view of intentions as states characteristically directed at actions in the full-bodied sense and as states distinct from the action they cause. (Pacherie 2008: 190)

Pacherie mentions the possibility of a kind of action which would be constituted only by a movement and an M-intention, without any P- or D- intention being involved. This she calls ‘actions in the minimal sense’:

The existence of automatic, spontaneous or routine actions suggests that it is not even always necessary that I form a P-intention in order to start acting. (Pacherie 2008: 189)

I therefore propose to say that an action in the minimal sense is an intentional movement, and consists of two parts: the bodily movement itself and the M-intention that causes and guides this movement. (Pacherie 2008: 190)

Pacherie suggests that actions in the minimal sense include automatic, spontaneous or routine actions in which the subject does not form a P-intention or a D-intention to start acting.

## **Awareness of actions**

According to Pacherie, there are two kinds of experiences that are simultaneously involved in the experience of action: awareness of the action, and awareness of agency. Awareness of the action has two components, the experience of what action is performed (for instance, *opening the jar*) and the experience of how the subject is performing it, which is the experience of the movements (for instance the experience: *by moving my left hand*). These two experiences depend on D- and P- intentions:

(...) what-awareness has two main sources. P-intentions provide us with a thin sense of what we are doing, restricted to our immediate goal, whereas D-intentions provide a thicker form of what-awareness, a representation of the kind of action it is at a more abstract level, and of one's reasons for performing it. (Pacherie 2008: 197)

M-intentions might thus play no role in awareness:

There is some evidence that the representational format of M-intentions is incommensurable with the representational format or formats of our phenomenology and that M-intentions are too short-lived to be accessible to consciousness. (Pacherie 2008: 196)

One immediate question is then that of how the awareness of actions in which no D- or P-intentions are directly involved should be characterized.

## **Pacherie's actions in the minimal sense and passive actions**

By introducing actions in the minimal sense, in which only M-intentions are involved, Pacherie seems to give up what Bach calls 'causalism' and endorses something similar to the interpretation of executive representations as sub-personal entities: it is not the subject being in a conscious mental state that explains the action, but an M-intention. The problems for Pacherie's view are therefore very similar to the problems I pointed out for such an interpretation of Bach's executive representations.

One interesting aspect of actions in the minimal sense is that while performing them, a P-intention can appear and start to guide the action:



It is interesting to note that even when a given action happens to be controlled by a P-intention, it is not necessarily this P-intention that triggered the action. While a routine action unfolds, I can become aware of what I am doing and decide whether or not I should go on with the action. If I decide to carry on, the action that had been initially triggered by an M-intention is now also controlled by a P-intention. (Pacherie 2008: 189)

The guidance of movements thus becomes different when a P-intention appears. This is a difference between Pacherie's proposal, on the one hand, and Bach's or Searle's proposals on the other hand. According to the latter, only executive representations or intentions in action are in charge of the unfolding of movements. The possible introduction of a P-intention into an action in the minimal sense offers an interesting characterization of a *subject performing an action* which did not appear in classical versions of causalism or in the modifications announced by Searle or Bach. Pacherie suggests that the notion of an agent seems to be based on the *possibility of controlling the action* through a 'P-intention'. This notion of agent matches some phenomenological intuitions, according to which some actions seem to be triggered and determined independently of the subject, although the subject might then modify and control them. This point also helps to explain the dynamism between the different kinds of actions (implicit passive actions, explicit passive actions and active actions) that I presented in Chapter 0. Pacherie explains this point by suggesting that when the subject pays attention to an action they are performing, a P-intention appears.<sup>7</sup> This function of P-intentions is, however, not included in her characterization of a P-intention—"an intention which anchors a plan in the situation of the performance and which, without a D-intention, is made on the fly"—and seems to involve mechanisms which Pacherie does not describe (attention, awareness, or endorsement of the action performed). Her characterization does not allow us to explain this interesting description of what it is for a subject to perform an action. Although in this aspect she works with a richer explanandum than other authors, her view does not manage to explain it.

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<sup>7</sup> This point is reminiscent of Dreyfus' explanation of the active character of absorbed coping through its possibility of becoming an intentional action (Dreyfus' absorbed coping can be stopped by the subject if they want to). Dreyfus' view, however, was in tension with some of his other claims and no clear explanation of this process was proposed.

Meanwhile, Pacherie's view of actions in the minimal sense shares some of the problems with sub-personal views (the sub-personal reading of Bach's notion of executive representations and Clark's zombie system). These kinds of sub-personal views are insufficient to explain actions. M-intentions are motor specifications: neurotransmitters which transmit the information to the muscles. However, first, there are neurotransmissions which result in bodily movement which is not the bodily movement of an action. It is thus necessary to explain why the resulting movements are the movements of an action and their difference from other kinds of movements. And if a specific-for-action mechanism is introduced to explain why some neurotransmitters result in the movements of an action, it is not motor specifications that explain actions but that specific-for-action mechanism. The presence of neurotransmitters is thus not a sufficient explanation of action. Similarly, there are many aspects of actions in the minimal sense which are normally explained by the presence of a subject (for instance, the determination of the general action to be performed or its control) and which are not explained by means of M-intentions. Clark, in response to a similar problem, introduced conscious determination of the kind of action and of the way the action should be performed. That introduction was problematic since it could not explain some actions in which the conscious determination of the kind of action was not present. Pacherie does not offer a solution to this issue and thus her characterization of actions in the minimal sense through motor specifications is insufficient.

Finally, by presenting a relation between the subject and the action based on motor specifications, Pacherie is committed to the claim that there is no experience of actions in the minimal sense, just as in the case of blind sight employed by Searle. M-intentions are not (or only minimally) cognitively penetrable. For this reason, Pacherie does not offer an explanation of the passive phenomenological traits of explicit passive actions.

## **Conclusions**

Pacherie seems to propose a version of causalism, since she presents a view in which conscious representations are what causes action. However, when explaining actions

in the minimal sense, she seems to give up on causalism and thereby to endorse the first interpretation of Bach's executive representations. The problem with this strategy is that it is insufficient to explain action only through motor specifications. What might be proposed to respond to this worry is what should ultimately explain action and not motor specifications.

An interesting aspect of Pacherie's view is that, by giving up causalism and in her way of presenting the relation between actions in the minimal sense and P-intentions, she seems to propose that what ultimately explains action is not the subject causing the action but *the possibility of controlling it*, which she theorizes through P-intentions. However, her characterization of P-intentions cannot explain this aspect. Pacherie does not manage to explain this way of explaining the action; however, she accepts and describes a phenomenon to analyse.

### **Conclusions of the chapter**

In this chapter, I have presented some views which maintain that the performance of any action is explained by the fact that subjects cause their actions by means of a conscious mental state. This view faces a problem posed by actions in which no conscious mental state representing the action seems to be involved. Bach and Searle propose the following view: the conscious representation is a representation of bodily movements, and this representation causes the movements of the action. This continues to relate the conscious subject with the action, and seems more difficult to attack than standard versions of causalism since, unlike intentions, movements are intrinsic to bodily action.

I conclude, however, that this strategy is unlikely to succeed.

First, most actions are performed without an experience of the bodily movements to be carried out or of the bodily movements actually performed. Other actions are performed where the subject is under conscious illusions concerning the movements to be performed. Thus, this kind of representation of the movements to be performed does not seem to cause them.

Second, the resulting explanation of why an action is an action is not clear. The relation between the subject and the action is different in the following two cases: one, a subject with an intention to perform an action causes that action; two, a subject with a representation of the movements to be performed causes those movements. This second relation cannot explain different aspects which should be explained, such as the determination of the action, the possibility of controlling the action, or explicit awareness of it. Moreover, since no complementary explanation is proposed to explain these different aspects, the evaluation of these views is incomplete.

Third and finally, although these views propose a minimal notion of action, they cannot explain the special experience of the passivity of passive actions (in which elements other than the subject are experienced to be what causes the action), since it is always a representation of the subject which causes the action.

In particular, due to the first problem, a tendency in these theories is to deflate intentions to the point where it is claimed that they are nothing more than sub-personal motor specifications. However, if we give up the subject who causes the action (or the movements) through their conscious mental states, then what explains the fact that the resulting movements are the movements of an action?



**Basic actions and passive actions**

In the two previous chapters, I explore how some relevant theories of action explain the fact that (a) – (g) below are actions.

- a) Playing with one's hair.
- b) Doodling.
- c) Eating a peanut during a conversation.
- d) The different steps taken when crossing the street.
- e) Changing gears while driving a car.
- f) Expertly returning a tennis ball.
- g) Starting to sprint 100 metres.

These examples, (a) – (g), are cases of what in Chapter 0, I call 'passive actions'. To here, I have argued that the explanations of passive actions presented in Chapters 1 and 2 are, however, unsatisfactory.

In this chapter, I explore a different way of explaining these actions. This way relates passive actions to *basic actions*. Basic actions are those that the subject performs but not by performing something else. They are theoretically introduced via an argument which concludes to their existence without specifying which, of all the acts that a subject performs, these basic actions are. In this chapter I therefore enter into a search for basic actions and I will use the conclusions reached to understand passive actions.

## Pre-theoretical relations between passive actions and basic actions

Basic actions do not seem, a priori, to be related to passive actions and the exercise of relating them could seem, at this point, unjustified. I think, however, that certain aspects justify an exploration of possible relations between the two.

I will first present the argument which concludes to the existence of basic actions:

- Some actions are performed by performing another action: for instance, turning on a light can be performed by flicking the switch and crossing the street by taking one step after another.
- Were all actions performed by performing another action, an infinite regress would appear: action *a* would be performed by means of action *b*; action *b* by means of action *c*; action *c* by means of *d*, and so on.
- Since, on pain of an infinite regress, not all actions can be performed by performing another action, *actions not performed by performing another action* are introduced. These are called 'basic actions.' In opposition to these basic actions, those actions that are performed by performing other actions are called 'non-basic actions'.

This argument was first presented by Arthur Danto (1965; 1973; 1979):

The argument is that on penalty by infinite regression, not all actions can be nonbasic on those observed. If as part of doing *a* I must do *b*, as part of doing *b* I must do *c* (...) and this is perfectly general, it follows that there can be no actions performed at all. This is not because one cannot perform an infinite number of actions in a finite time, but because the regression puts the beginning of any series logically out of reach. So if there are nonbasic actions, there must be actions in which the agent acts directly (...). These are *basic* actions. (Danto 1979: 46)

Basic actions stop the regress that would appear if all actions were non-basic. Danto sometimes refers to basic actions as *actions in which the subject acts directly*. Similarly, Jennifer Hornsby (1980) claims that basic actions are those *actions performed just like that*.

Although the argument concludes with the introduction of basic actions, it does not say exactly what such actions are, and they certainly do not seem to be evident or self-evident.<sup>8</sup> I have presented two examples of non-basic actions: turning on a light and crossing the street. It is, however, more difficult to present examples of basic actions.

Despite this lack of examples, at this point, some relations between passive actions and basic actions might start to become apparent.

Taking steps (to cross the street) and flicking a switch (to turn on the light) are common (although moot) examples of basic actions. These actions are also passive actions. I characterized passive actions through the experience of passivity, the experience of the action as something that happens to the subject, which I contrasted to the experience of *oneself being the cause of the action*, for instance, when I realize that action *x* has already started without me, as a conscious subject, being involved in its starting. Taking steps and flicking a switch can be experienced in this way. If I pay attention to the steps, I will experience them as something which, although an action of mine, do not result from me performing as an agent.

Basic actions also seem to share with passive actions a sense of fluidity: if *directly performed* or *performed just like that* (characterizations of basic actions) had a phenomenological output, it could be *a feeling of fluidity*. When subjects perform the different steps to cross the street *directly* or *just like that*, they feel that they are performing them with *fluidity* and without any effort of the creation of some

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<sup>8</sup> Although Danto (1965) claims that basic actions are evident to the subject, he later (1979) changes his mind. In 1965 he claimed that:

I do not wish to suggest, however, that the only proof we are entitled to, for the existence of basic actions, is by way of a transcendental deduction, for I believe we all know, in a direct and intuitive way, that there are basic actions, and which actions are basic ones. (Danto 1965: 145)

In (1979), he rejects that position, which did not receive support from other authors (the discussion on basic actions focuses on the characterization of non-basic actions in order to characterize basic actions as its negation). Along these lines, Sneddon (2003) tells us:

The argument is that the need for basic actions is logical. Given a certain sort of action that we all recognize, we are supposedly forced by logical necessity to recognize the existence of a less obvious sort of action, the basic ones. (Sneddon 2003: 507-8)



experience. Although it is true that the characterization of these feelings is unclear and ambiguous, and that the reasons for applying it to basic actions and to passive actions might be different, why should we not explore the hypothesis that passive actions and basic actions are performed with fluidity in the same way and for the same reasons?

Both basic actions and passive actions are kinds of actions which, at this moment, are *characterized negatively* and presented in opposition to another, maybe similar, kind of action. Basic actions are presented in opposition to non-basic actions: those actions which are performed *by means of another action*. Passive actions are characterized in opposition to active actions: actions in which *subjects experiences themselves as the cause of the action*. At first, these two deficits do not seem to be related: to be performed without performing another means action is not related to the lack of experience of a causing agent. However, there is a way to relate the two. An intention to perform an action (which is a way of conceptualizing the agent who causes the action) usually seems to represent an action which has some means: when intending to drink water, the subject has the intention to drink water *by moving their body*. Introducing a kind of action that is opposed to this type, would introduce a kind of performance that is not caused by intentions and which might not involve the performance of something else in order to perform it. It would be a kind of performance in which no intention is involved and which is not performed by means of another performance. A performance of this kind would be a basic action (since it would be performed without performing another action—means) and a passive action (since no intention would be present).

Finally, both passive actions and basic actions seem to show us something essential about actions. The discussion of basic actions turns out to be a search for a special kind of performance that is *more fundamental* than other performances of the subject, since other actions are performed through them. The search for basic actions is, thus, the search for what might be a genuine form of acting. (This way of presenting the discussion of basic actions is very important in order to understand the different arguments and positions, and the stress that different authors place on certain points.) Passive actions also seem to show something essential about the agent: they are the kind of performance which arises even in those cases in which the will of the subject

does not seem to be the cause of the action. Both kinds of action seem to be the result of something essential in the human way of acting.

However, there are aspects which make it less plausible to think that the two kinds of action are intimately related or even identical. In this vein, the first and second points I raise below refer respectively to the fact that there are passive actions which do not seem to be basic actions and basic actions which do not seem to be passive actions.

There are two kinds of passive actions which do not seem to be basic actions. There are, first, passive actions which do indeed seem to be performed by means of another action. For instance, the subject absorbedly doodles by, among other things, drawing a circle, and this relation seems to be a relation of the same kind as the relation between crossing the street and taking steps. Second, if basic actions are necessarily characterized as the means of another action (which is not a necessary trait of basic actions: some authors hold that basic actions can be autonomously performed), there are passive actions which do not seem to be the means for a non-basic action: for instance, the passive action of doodling.

Second, in the opposite direction, it is not certain that all basic actions are passive actions, especially in cases in which the subject pays attention to them. I claimed that crossing the street is performed by taking one step after another. If I pay attention to my steps, the steps performed previously seem to be passive actions, but it is not clear that the steps performed while paying attention to them are equally passive. However, in Chapter 0, I presented a dynamism between active actions and passive actions which relativizes this problem. If the subject does not pay attention to basic actions, they seem cases of passive actions.

Finally, it seems difficult to identify basic actions and passive actions since basic actions are a constant element in all actions—all actions are either basic or they are performed by performing a basic action—and in contrast, actions of the kind (a) – (g) do not seem to be constant and necessary elements of action. However, in Chapter 0, I suggest that passivity may be a constant dimension in our way of acting (feature 4).

The fact that the notion of basic action is, for the moment, not sufficiently developed and that we do not yet know what kind of performances count as basic actions, leaves some room to continue exploring the similarities between them and passive actions,

and to try to relate the two kinds of actions. In what follows I am going to leave aside passive actions and enter into the debate concerning what kind of actions stops the regress that the phenomenon of non-basic action generates. After this, I will then again return to the relation between passive actions and basic actions.

### **The phenomenon which introduces basic actions: non-basic actions**

I have already presented the argument which introduces basic actions. One essential step in order to identify basic actions to characterize, first, the non-basic phenomenon.

Danto's argument starts with a sentence describing a non-basic performance which seems to be true: some actions are performed by performing other actions. It is not clear, however, what this sentence means and on which of its possible meanings it comes out as true. Does it mean that the subject performs two actions or only one? Does it describe a phenomenon in which one of the actions causes the other or in which the subject causes an action by performing another one (which might be different)? Or, in contrast, does it describe a phenomenon of awareness which does not refer to the performance of the action?<sup>9</sup> The lack of a clear and non-theoretical meaning of the sentence that introduces the non-basic phenomenon makes it difficult to determine, through Danto's argument alone, which actions are basic. The search for basic actions therefore needs to go hand in hand with the characterization of the sentence which introduces the phenomenon.

The following are three traits of non-basic performance which are important to characterize it:

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<sup>9</sup> Andrew Sneddon (2003) presents the following characterizations of the differences between non-basic actions and basic actions:

- Some actions are mediated, some are unmediated (Danto 1973, 1999).
- Some actions can be done directly, some cannot (Bishop 1990, Prichard 1949).
- Some actions are done at will, some are not (Mele 1995).
- Some actions are done through others, some are not (Danto 1973).
- Some actions are done by doing others, some are not (Goldman 1970).

To explore the non-basic phenomenon, it is important, first of all, to highlight the difference between two kinds of *by-another-action* performance. When performing a non-basic action in the sense in which Danto presents it, the subject *simply* performs that non-basic action. This case is different from the case in which the subject *plans or intends*<sup>10</sup> to perform one action by performing another action. When performing the non-basic action of turning on the light, it is not the case that the subject flicks the switch *intending to* turn on the light, but rather that the subject *simply turns on the light*. This difference between *simply turning on the light* and *flicking the switch intending to turn on the light* is the difference between a person who expertly knots a tie and the person who follows a tutorial on to do it. Both subjects might execute the same movements, but only the former is performing a non-basic action in Danto's sense. By following the tutorial, the latter subject performs movements which will result in the action of knotting the tie, while via the non-basic action, the former subject is simply knotting the tie. The two cases are different since they generate different regresses which are stopped in different ways. What stops a possible regress in the situation in which the subject grasps one end of the tie *intending to* knot the tie is the performance of an action<sub>a</sub> which is not the result of another action<sub>b</sub> performed *intending to* perform action<sub>a</sub>. This kind of action does not stop the regress in the case of the expert tie knotter. The knotting of the tie is performed by another action without the relation between the actions being mediated by intentions. In this case, the regress is stopped by what Danto called 'basic actions'. It is important to present the distinction between these two kinds of *by-another-action* regression since, sometimes, they have been merged. I think that they are two different relations and that, a priori, the explanation of one relation is not useful to explain the other. Below, when talking of the non-basic phenomena, I will return to the relation that is not mediated by intentions.

The clarification of this difference introduces two (related) traits which seem important to characterize the performance of non-basic actions.

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<sup>10</sup> I am not talking about the *technical* and *theoretical* notion of intention introduced by those theories which argue that every action that a subject performs is an action caused by an intention to perform it (cf. Chapter 2, Searle 1983, Pacherie 2007, Bach 1978, Proust 2003b).

First, non-basic actions are performed in a *direct* way. In the tutorial case, in contrast, the subject does not perform the action directly. It is necessary to highlight that, surprisingly, at this moment, both basic actions and non-basic actions are characterized by the same trait: as being a *direct* performance. Danto and Hornsby claim that basic actions are actions performed *like that* and I claim that non-basic actions are actions which are *directly* performed. It is therefore necessary to clarify what ‘direct performance’ means in each case.

Secondly, the kind of *knowledge* involved is different in both kinds of regressions. What seems to make the difference between the regressions is that one subject *knows how to* perform the action expertly, while the other *cannot* perform the action in such way, and for this reason, this latter subject relates the two actions by means of an intention. This relation by means of an intention is the result of what seems to be a different kind of knowledge, the knowledge that performing one action will result in the other.

The non-basic phenomenon is also characterized by its *apparent* never-ending recursivity. It seems that any candidate for a basic action finally turns out to be a non-basic action performed by performing another action. The non-basic phenomenon seems to be a *fractal* phenomenon<sup>11</sup> in which a non-basic action is performed by non-basic actions.

Many authors (Lavin 2013, Martin 1972, Thompson 2008, Sneddon 2003) make remarks of this kind, for instance:

Suppose I am on the road to Kathmandu with Donald Davison. “Stop! Don’t turn left. We’ve got to go this way,” I say, pointing to our position on the map, Chitwan, and then tracing the improbably straight path, arranged for philosophical purposes, of an unnamed road all the way to Kathmandu. What is the basic action in all this? Now, I intentionally moved my finger along the line from Chitwan to Kathmandu. And I also have moved my finger from Chitwan to here, Hetauda, which is halfway

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<sup>11</sup> The term ‘*fractal*’ was introduced by the mathematician Benoit B. Mandelbrot. Fractals possess the property of self-similarity. A self-similar object is one whose component parts resemble the whole. This reiteration of details or patterns occurs at progressively smaller scales and can, in the case of purely abstract entities, continue indefinitely, so that each part of each part will look like a fixed part of the whole object.

along the route. Indeed, I did this intentionally and with a view to moving it to Kathmandu. But of course I have also moved my finger from Chitwan to here, mid-point on the way to Hetauda. And why shouldn't it also be that I did this intentionally and with a view to moving it to Hetauda and so in order to move it to Kathmandu? After all if you point it out, I won't say "I didn't know I was", and moreover I will be able to give the reason why I was doing it. And, now, what is to prevent us from applying this procedure again and again without end, each time isolating some initial segment of a movement and showing it to be something I did with a view to bringing off the whole? (Lavin 2013: 277) <sup>12,13</sup>

This illustration shows the elusiveness as being of the same kind for two kinds of non-basic actions which seem different: *turning on the light by flicking the switch* and *moving my arm to point to B by moving my arm to an intermediate position between my actual position and B*. The difference seems to be the difference between an action performed by performing an action and an action performed by the performance of a sub-movement of the movement that such an action involves. While the first is a standard case of non-basic action, the second seems to be an artificial non-basic relation, in which the means–end relation between the actions is not a proper means–end relation. I do not see, however, how to conceptualize the difference between the cases, since in many cases of standard non-basic performance, the basic action is a way of referring to the movements of the non-basic action. I will follow the literature on basic actions which treats them as two cases of the same phenomenon. Below, I will argue that the feeling of artificiality in the second case reveals something about non-basic performance in general (which is more evident in the latter kind of relation than in the former, but which affects both of them). Roughly, although it is true that a non-basic action is performed by means of another performance, this latter performance is generally not the action that a sentence describing what the subject is doing would report.

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<sup>12</sup> Another similar formulation of this argument appears in Thompson (2008): 107-8.

<sup>13</sup> In this exposition, Lavin is making a problematic theoretical commitment, according to which a segment of a movement is a possible basic action since it is performed, using his words, *in order to*, or *with a view to* perform another action, which might make this action an action of the kind which I have just claimed was not the kind of non-basic relation which is the target of Danto's argument (similar to the person following the tutorial). However, attributing an intention here is a theoretical commitment and it is theoretically introduced to relate the two actions.

For Lavin (and also for Andrew Sneddon 2003 and Michael Thompson 2008), the problem of elusiveness is a reason against the introduction of basic actions through the argument that Danto presented. The search for basic actions seems to lead either (1) to an artificially and *ad hoc* halt in the search at one of the actions performed, and to the claim that at this point we have found a basic action, or (2) to claim that the argument which concluded with the existence of basic actions is invalid. Since it is not possible to defend horn (1), then horn (2) should be accepted. According to these authors, Danto's argument is invalid and the non-basic phenomenon is a complex phenomenon whose correct characterization does not finally require the introduction of basic actions. For instance, Sneddon (2003), whose arguments I am not going to present in detail, says:

The anti-infinite regress arguments that are used to develop the observations noted by Danto fail to show that there is a special class of basic actions. These arguments are partly the effects of a failure to distinguish clearly production and status issues concerning action. (...) Seen by themselves, neither production issues nor status issues present a need for actions of any special, basic kind. (Sneddon 2003: 516)<sup>14</sup>

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<sup>14</sup> Jane R. Martin (1972) also points to the problem of elusiveness, but she proposes a possible solution.

Like Lavin, she also claims:

I read a chapter of *Tom Sawyer* to my sons last night. I take it this was an action of mine. Is it something I did by doing something else? Are some other actions included in it or does it consist in other actions? Surely my reading the first page of the chapter is included in my action of reading *Tom Sawyer*, and included in that action is my action of reading the first word on the first page. Does that action include some other or is it basic? Did I read “the” by doing something else or not? It seems to me that my reading the word “the” was a basic action or if it wasn’t my recognizing the pattern made by “the” was. (...) They [the authors that discuss the notion of basic action] might insist that I read “the” by moving my eyes and that this, not reading “the,” is my basic action. (Martin 1972: 59-60)

Martin is less sceptical than Lavin. After presenting the problem, she proposes a solution: the regress stops at what she calls ‘actions’ which she contrasts to what she calls ‘mere doings’: only actions, and not mere doings, are candidates to be basic actions. The difference between actions and mere doings is that the subject performs actions by attending to them, but not so for mere doings.

What I propose is that a distinction be drawn between those doings to which a person attends and those doings to which he does not attend. The doings to which he does not attend are “mere” doings, i.e., they are not actions. (...) Attending to what one is doing is a necessary condition for that doing’s being an action. (Martin 1972: 63)

To solve the problem of the elusiveness of basic actions, basicness should not be thought of as a *relative* property (like tallness) but an *absolute* (such as the property of being round: it is always possible to find a taller thing but not a more round one.) However, it is also important, for a theory of non-basic actions to explain why the point where the regress stops seems so elusive. Normally, when an author proposes a notion of basic action which treats basicness as an absolute property, they do not offer an explanation of why the regress *seems to* continue.

The elusiveness of the basic action reveals a problem for the characterization of the non-basic phenomenon. Sentences (a) and (b) below describe two different non-basic performances in which a different number of action–means relations are involved:

(a) I open the case by turning the catch by carefully moving the arm.

(b) I cross the street by taking steps.

Here, (b) is performed by performing one action–means, and (a) by performing two. Rather surprisingly, this difference in the number of action–means does not involve different kinds of performance. If we want to understand sentences (a) and (b) as claiming something about the performance they describe, a difference between the performances of opening the case and of crossing the street related to the number of action–means should be introduced. However, in the relevant sense, opening the case and crossing the street are actions of the same kind and the number of actions through which these actions are performed does not seem important. I think the lack of relevance of this difference is indeed important. It relativizes the fact that the non-basic action *is performed by another action*. I will explain this lack of difference

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According to Martin, reading ‘the’ is an action since, among other conditions, subjects attend to what they do, while moving one’s eyes cannot be an action since the subject does not attend to it. This solution implies, however, that subjects pay attention to their basic actions, which does not seem always to be the case. The subject crosses the street by taking steps without paying attention to those steps. Thus, on the one hand, to make the solution plausible, Martin should introduce a notion of attention capable of differentiating between reading the word ‘the’ and moving one’s eyes, or between pointing to a point on a map and any segment of that movement; but such a notion is not present in her paper. On the other hand, and I think that this is a more severe problem, there would then be a regress of mere doings, which remains unexplained by her view, and which therefore seems to become the non-basic phenomenon.



through the fact that *the number* of actions is the result of a process which is not the performance of the non-basic action.

To sum up, the following are two important traits which characterize non-basic performance:

1. The characterization should explain the regress which appears in the case of the expert tie knoter (whose performance *is direct*, and which seems to be the result of *knowledge* of how to perform this non-basic action directly). This regress is different from the regress which appears in the case of the person performing an action intended it to result in another action.
2. The explanation of the non-basic phenomenon should provide an answer to the problem of elusiveness by, at the same time, considering basicness as an absolute property and giving an explanation of why the action which stops the regress is so apparently elusive.

The most commonly used strategy to find what stops the regress that non-basic actions introduce consists of characterizing non-basic actions and concluding that whatever characterizes them is absent in basic actions. This strategy seems correct. However, it requires a correct characterization of non-basic actions and correct selection of the trait which has to be absent from basic actions.

Bearing in mind the observations I have made in this section, I will continue to present, first, the causal approach to non-basic actions of Arthur Danto (1965; 1973) and Frederick Stoutland (1968), and second, Jennifer Hornsby's (1980) teleological approach. Although it also presents problems, the teleological approach has some positive aspects in relation to the causal view. I will attribute the problems encountered by the teleological view to one of its claims, and I will then try to develop a teleological view without this claim. It will share some aspects with the view Danto presented in 1979 (which is different from his first causal proposal). Finally, I will hold that the phenomenon becomes clearer and easier to explain if we understand 'an

action performed by another action' as being the result of two different processes: one which explains the performance of the non-basic action by moving the body, and the other related to awareness of this bodily movement. I think that Lavin (2013) and Sneddon (2001) are right in claiming that the non-basic phenomenon is not well described; but I will not reject the introduction of basic actions.

### **Causal approaches to non-basic actions: Arthur Danto (1965, 1973) and Frederick Stoutland (1968)**

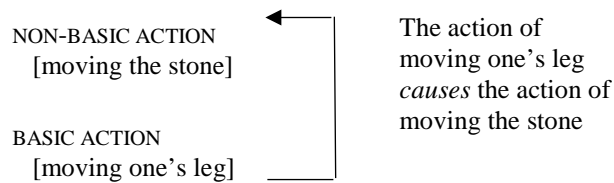
According to the first proposal, by Arthur Danto (1965), *moving a stone* is a non-basic action, since

(...) in order to cause the motion of the stone, something else must be done, or must happen, which is an event distinct from the motion of the stone, and which stands to it as cause to effect. (Danto 1965: 145)

Danto is presenting a causal approach according to which the basic action causes the non-basic one. Although in this fragment, Danto claims that the cause of the non-basic action might be either something done or something which happens (and not performed by the subject, we must suppose), it seems more plausible to read his proposal as only claiming that what causes the motion of the stone is an action. His examples and the way in which he analyses the notion of basic action throughout the paper seem to support this interpretation. For instance,

I have not claimed that basic action are not caused, but only that a man performing one does not cause it by performing some other action that stands to it as cause to effect. (Danto 1965: 142)

According to Danto, performing a non-basic action consists of causing the non-basic action to happen by performing another action. For instance, the action of moving the stone is a non-basic action since it is caused to happen by the subject's moving their leg.



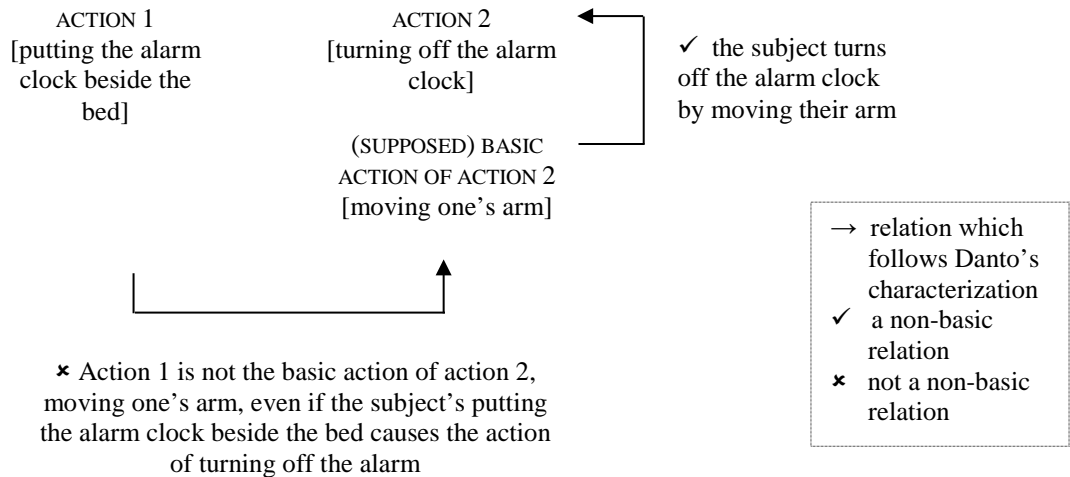
If an action is not caused to happen by another action of the subject, then it is a basic action.

An initial problem with Danto's characterization is that it does not characterize only the performance of a non-basic action. Frederick Stoutland (1968) presents an action which, according to Danto's characterization, is a non-basic action, although it is what is normally presented as a basic action:

An example of his causing himself to move it [his arm] might be his putting the alarm clock away from his bed so that in the morning he has to move his arm to shut it off. While this is probably a clear case of a man causing himself to move his arm by performing an action (i.e., by putting his alarm clock away from his bed), it is certainly not a paradigm case of a nonbasic action. (Stoutland 1968: 469)

Moving one's arm to perform a possible action is often thought to be a basic action. However, in this case, the movement of the arm is caused to happen by a previous action, putting the alarm clock beside the bed the night before, which (according to Danto's characterization) makes the movement of the arm a non-basic action. At this point in the exposition, we do not know whether moving one's arm is a basic action or a non-basic one; however, we do not want to consider it a non-basic action simply due to fact that it is caused by the subject putting the alarm clock beside the bed the night before. This seems to be an undesired consequence of the theory.

The first problem for Danto's theory is, thus, that his characterization gives undesired reasons to consider the movement of one's arm to be a non-basic action.



Danto's characterization is thus not sufficient and other conditions should be added in order to exclude this case and differentiate between the causality present in the alarm clock case and the relation between non-basic and basic actions.

After presenting his counterexample, Stoutland proposes an alternative characterization. He explicitly denies that his characterization is a causal one. However, since he characterizes the relation between basic and non-basic actions in terms of *results* and *consequences*, it is possible to claim that he also works within a causal framework. Stoutland uses the distinction between the *consequences* and *intrinsic results* of an action. This distinction was first introduced by H. von Wright in *Norm and Action* (1963: 39). When an action is performed, some events occur. One of those events must necessarily occur, which this is the *intrinsic result of the action*. The *intrinsic result* of the action *moving one's arm* is the movement of one's arm since a subject cannot perform the action of moving their arm unless their arm moves. *Consequences*, in contrast, are events which are only contingently related to actions. If when moving their arm the subject turns on the light, the turning on of the light is contingently related to the action of moving their arm: it is a *consequence* of this latter action. Using these two notions, Stoutland characterizes the non-basic phenomenon in the following way:

If the *event*, which is the intrinsic result of *M's* action, is a consequence of something *M* does, then that action is a nonbasic action of *M's* (if it is an action of *M's* at all). If

the *event* which is the intrinsic result of *M*'s action is not a consequence of something *M* does, then that action is a basic action of *M*'s. (Stoutland 1968: 473)

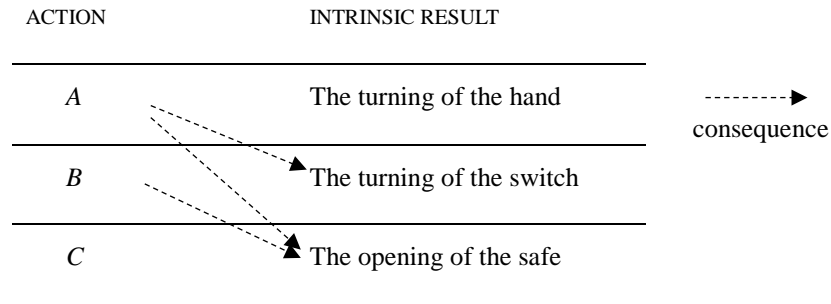
An action whose result is the consequence of another action performed by the subject is a non-basic action. Let us consider the following actions *A*, *B*, *C* and *D* and their intrinsic results and consequences:

ACTION	INTRINSIC RESULT	
<i>A</i>	The moving of one's arm	
<i>B</i>	The flicking of the switch	
<i>C</i>	The turning on of the light	
<i>D</i>	The crossing of the street	

*A*, *B*, *C* and *D* are actions, and the descriptions given describe their results. As the arrows show, the results of actions *B* and *C* are consequences of action *A*; and result of action *C* is a consequence of *B*. Thus, since the result of action *B* is a consequence of action *A*, *B* is performed by *A*. Also, since the result of action *C* is a consequence of *B*, *C* is performed by *B*. And finally, since the result of action *C* is a consequence of *A*, *C* is performed by *A*. In contrast, if the result of action *D* is not a consequence of *A*, *B* or *C*, then *D* is not performed by performing *A*, *B*, or *C*.

Stoutland illustrates his characterization in the following way:

If *M* opens the safe by turning the switch, then the event of the opening of the safe, which is the *intrinsic result* of *M*'s opening the safe, is a *consequence* of *M*'s turning the switch. And if *M* turns the switch by turning his hand, then the event of the turning of the switch, the intrinsic result of *M*'s turning the switch, is the consequence of his turning his hand. And in general, if *M* does *B* by doing *A*, the event which is the intrinsic result of *B* must be a consequence of *A*. (Stoutland 1968: 472)



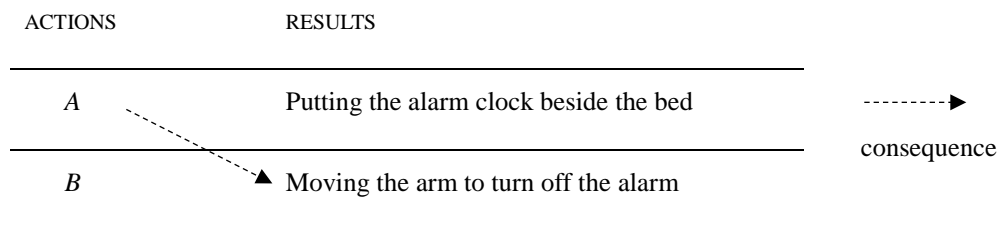
According to this kind of view, the basic action is the action whose intrinsic result is not the consequence of another action of the subject. Let me just advance that this characterization of basic actions fails to resolve the problem of elusivity and does not seem capable of stopping the regress: pointing to a position of the map might be the consequence of a more basic action, for instance, moving one's finger, which also seems to be the consequence of the more basic action of moving the phalanx of one's finger, and so on. Which are the actions whose results are not the consequence of another action? Stoutland's characterization of basic actions does not treat basicness as an absolute property.

Alvin Goldman (1970) adopts a similar strategy and also presents a special kind of causal relation, *causal generation*, which characterizes the relation between basic actions and non-basic actions, and which he contrasts to *a causal* relation between two actions. The difference between causality and causal generation is the difference between one act causing another act (causality), and an act causing an event (causal generation).

But we have said that when shooting causally generates killing [a non-basic action], it is not a case of the one following the other. The *causation* takes place not between the act of shooting and the act of killing but between the act of shooting and the event of the victim's dying. This causal relation in turn allows the act of shooting to *causally generate* the act of killing. Similarly when one *act* causes another *act* [as in Stoutland's counterexample], as for example, when the act of tickling oneself causes the act of laughing, it does not causally generate the other. (Goldman 1970: 23-4)

One problem with these alternative formulations is that, despite the intentions of both authors, they are not able to exclude the counterexample that Stoutland himself presented. Julia Annas (1977) points out that these new notions (Stoutland's *result of*

*an action being the consequence of another action and Goldman’s causal generation*) keep on making the action of moving one’s arm a non-basic action performed by placing the alarm clock away of the bed. In Stoutland’s terms, the movement of the arm, which is the result of the subject’s action of moving their arm to turn off the alarm, is a consequence of placing the alarm clock beside the bed. Consequently, for Stoutland, placing the alarm clock beside the bed is the basic action of the movement of the arm the following morning.



Using Goldman’s terms, the action of putting the alarm clock beside bed causes the event of the arm movement.

Annas presents this problem by proposing her own counterexample: my action of dropping the keys causes my action of breaking into the house. Although *breaking into the house is not an action performed by dropping the keys*, according to the kind of characterization that Stoutland and Goldman present, it is.

We might well assume that since my dropping my keys causes my breaking into the house, it causes the event corresponding to the latter, namely, the house’s being broken into, and thus that dropping the keys is causally more basic than breaking into the house. However, this would be a mistake. (...) It is important that we are not prepared to say that I broke into the house by dropping the keys. (Annas 1977: 200)

Stoutland’s and Goldman’s formulations are, then, unable to describe non-basic actions, excluding Stoutland’s counterexample.

A way to avoid this counterexample is to exclude the situation in which the two performances are two *non-overlapping* actions—which leads this discussion into the discussion of action individuation. Goldman seems to suppose that causal generation

only involves one act, although his view does not argue for this supposition.<sup>15</sup> Stoutland holds that the relation through which he characterizes the non-basic phenomenon does not accept two non-overlapping actions.

But *M* does not perform three temporally distinct actions, he performs only one, namely, turning his hand, which is, in these circumstances, included in turning the switch, which is included in opening the safe. These actions are, of course, logically distinct; since the intrinsic result of turning the switch is different from the intrinsic result of opening the safe, it is possible that he may have turned the switch without opening the safe. But they are not factually or temporally distinct. (Stoutland 1968: 471-472)

According to Stoutland, between two actions which are only logically distinct but not temporally and factually distinct, the causal relation that he has presented is possible. Stoutland's view lacks this explanation and does not explain why turning one's hand and opening the safe are the same factual action, while moving one's arm to turn the alarm off and placing the alarm clock beside the bed the night before are not (the temporal criterion is very vague since it is not clear how to temporally limit an action). He seems to be supposing that this relation only holds between non-basic performances, which thus leads to a circular view: the causal relation which explains the non-basic phenomenon only holds between two actions which are factually the same, which might finally mean that this causal relation only holds within non-basic performance.<sup>16</sup>

Jennifer Hornsby (1980) presents another problem for these causal approaches. This problem is, I think, first presented by Annette Baier (1971). Baier presents a non-

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<sup>15</sup> For others, in contrast, a causal relation between actions does require two non-overlapping actions, as for Myles Brand (1968), for instance, and consequently this relation cannot explain the non-basic phenomenon.

The actions of grasping the staff, and so on, are not distinct from the entire state of affairs of Jones moving the stone by pushing it with the staff; and, thus (...) these actions are not the cause of Jones moving the stone by pushing it with the staff. (Brand 1968: 189-190)

<sup>16</sup> Andrew Sneddon (2003) generalizes this problem to any strategy which tries to explain the non-basic phenomenon by providing a theory of action individuation.

Theorists offering an account of the individuation of actions typically get there through consideration of basic actions. Accounts of basic actions are not generally supported by accounts of action individuation, but rather vice versa. (Sneddon 2003: 515)



basic action which, she argues, cannot be explained in a causal way, since its basic action happens after it, and therefore cannot be its cause or its origin:

Case I is that of the performing physiologist, who knows that when he straightens his fingers his arm muscles tense and a lot of other things happen, including the firing of neurons<sub>1-n</sub> in his brain. He is then able to perform the task of firing neurons<sub>1-n</sub> by straightening his fingers. (...) What is causally basic (...), namely the neuron-firing (...), is something which seems teleologically nonbasic, since (...) the man had to do something else to do the causally basic thing. (Baier 1971: 166)<sup>17</sup>

In this case, the firing of the neurons, the non-basic action, is what causes the straightening of the fingers. According to the causal framework, the firing of the neurons should be caused by the basic action, and not inversely.

Hornsby presents another similar case, in which the basic action is later than the non-basic one, and therefore cannot be its cause.

A (...) difference (...) shows up in the case of a man who learns at golf that he must follow through with his club if he is to improve the accuracy of his shots. After practising his drives, he hits the ball correctly *by* following through. There is no question of the relation 'cause' obtaining between the event introduced by 'his following through' and the event introduced by 'his hitting the ball correctly': the motion of his club after its impact with the ball hardly causes the ball to be carried in the proper direction and for the proper distance. (Hornsby 1980: 75)

We want to consider the following through of the club to be the basic action and hitting the ball the non-basic one, since the hitting of the ball is performed by following through with the club correctly. However, since the following through of the club is performed after the hitting of the ball, in a causal framework, it cannot be the basic action. As Hornsby points out: the motion of the club *after* its impact with the ball cannot *cause* the hitting of the ball.

Apart from these problems presented by Stoutland, Baier and Hornsby, I find three other problematic aspects in this causal way of explaining the phenomena of non-basic actions. There is first the priority that it seems to give to the performance of

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<sup>17</sup> This is indeed a case that warrants discussion. It is not clear that firing neurons<sub>1-n</sub> by straightening one's fingers is a non-basic action. It seems to be more similar to the person trying to tie their tie by following a YouTube tutorial than to the person who expertly knots their tie. Hornsby presents another clearer case which illustrates the same problem.

basic actions over the performance of non-basic actions. This point is not made explicit in the different causal views and indeed, their way of presenting things aims to be neutral about which is the subject's *main* performance. However, maintaining that the subject performs a basic action which causes or results in the non-basic one seems to involve the claim that the main performance of the subject is that of the basic action, and that other actions are secondary to this performance. In contrast to such priority given to the performance of basic actions, some aspects of non-basic actions seem to require the priority of the non-basic action over the performance of the basic one. On the one hand, the phenomenon which starts the discussion is the phenomenon of non-basic actions, and it is analysis of this which requires the introduction of basic actions. In contrast to non-basic actions, basic actions are theoretically introduced and are not evident to the subject. On the other hand, as a subject, I am more involved in my action of crossing the street than in the basic actions that it involves: the different steps. For instance, I seem to have reasons to cross the street while the reasons for taking steps are derived from the reasons for the non-basic action.

The following two problems refer to some of the traits with which I have characterized the non-basic phenomenon: first, the apparent elusiveness of the basic action and the lack of difference related to the number of action–means; and second, the direct performance which characterizes the non-basic performance (and which makes a difference between the expert tie knoter and the person following a tutorial).

First, I have already pointed out against some versions of this causal approach present basicness as a relative property. The causal view does not seem capable of really determining the point where the regress stops (maybe every action is caused by another). To stop the regress, a kind of action whose result is not the consequence of another action needs to be introduced. By means of the causal characterization, it is not possible to identify these actions.

In addition, for the causal framework, two different non-basic actions performed by different numbers of action–means seem to result in different kinds of performances related to the number of action–means, which does not seem to be the case in non-basic performance.

Finally, this causal framework is not capable of explaining the difference presented above between the expert tie knoter (performing a non-basic action) and the person who is following a tutorial (not performing a non-basic action). This view does not explain the direct performance that characterizes the non-basic performance; and it is compatible with both the expert case and the case of the person who follows a tutorial. (There are thus two problems for the sufficiency of the causal view: (a) Stoutland's counterexample and (b) the lack of differentiation between the subject who performs a non-basic action and the subject who is learning to perform the same action.)

We may sum up the problems for the causal framework as follows:

- [Problem 1 of 7] Stoutland's counterexample.
- [2/7] Action individuation: the causal explanation does not exclude (maybe it requires) the situation in which the subject is performing two different non-overlapping actions (which is not non-basic performance).
- [3/7] Hornsby and Baier: the causal framework cannot explain those non-basic performances in which basic actions happen after the non-basic one.
- [4/7] It is not capable of explaining the special involvement that the subject has with their non-basic action.
- [5/7] Since it does not present basicness as an absolute property, it does not stop the regress.
- [6/7] The causal view should claim that different numbers of action-means result in different kinds of performance.
- [7/7] The causal view explains the regress in the case of the expert tie knoter and the person who is following the tie knotting tutorial in the same way.

### **Jennifer Hornsby's (1980) teleological basicness**

After presenting her criticisms of the causal approaches (in particular, the problem of basic actions performed after the non-basic action), Hornsby proposes that we should understand the relation between basic actions and non-basic actions as a *teleological*

*relation* mediated by how the subject *conceives of* their performance. According to this teleological relation, the non-basic action and the basic action are related since the subject *conceives that the non-basic action is performed by the basic action*. Turning on the light is a non-basic action since the subject *conceives of* it as performed by another action: flicking the switch. This conceiving on the part of the subject is a necessary condition for the non-basic phenomenon. If someone does not conceive of their action as being performed by performing another action, then it is not performed by performing another action.

There must be some truth in the thought that what is basic is what is not done by means of doing anything else. (...) What we require is not the broad idea of how things are done, but an idea of what the agent conceives of as his means; it is the agent's response to Prichard's *How?*-question on which we need to focus, not the physiologist's response. (Hornsby 1980: 78)

*Basic actions* are, according to this view, those actions which the subject does not conceive of as being performed by means of another action.

Hornsby is not claiming that the phenomenon of non-basic actions and the associated regress refer only to the way in which the subject conceives their action. Her theory is, as causal approaches are, a theory of the performance of actions. How the subject conceives of their action is effective in the performance of the action: when conceiving of an action performed by performing another action, the action *is* performed by that other action. This effectiveness seems difficult to give up, since giving it up might mean that what characterizes non-basic actions is not something related to their performance.

In contrast to causal approaches, for Hornsby, the basic action seems to be the result and not the origin: how the subject conceives of their whole performance (which is usually determined by the non-basic action) causes the performance of this non-basic action by the basic action. This resolves one of the problems of the causal views (problem 4/7), the special involvement that the subject has with their non-basic action.

*Conceiving* is a broad notion which Hornsby analyses in terms of *knowledge*. She proposes that we should see non-basic performance as those actions which require

*theoretical knowledge* to be performed—by means of theoretical knowledge, the subject knows that an action should be performed by another action. In contrast to non-basic actions, basic actions involve *practical knowledge*: the subject *practically knows* how to perform basic actions (without having to perform another action—means).

*Theoretical knowledge* and *practical knowledge* are not explicitly characterized in Hornsby's account.<sup>18</sup> The origin of this difference is Ryle's difference between *knowing how* and *knowing that*, which Hornsby takes over and adapts, emphasizing the practical dimension of knowledge-how:

The crucial distinction here is between knowing *how* [theoretical knowledge] and knowing *how to* [practical knowledge], and it would be blurred if we followed Ryle [2002 [1949]] in marking the distinction between practical and theoretical knowledge with a contrast between knowing how and knowing that. For to know how something is done is to possess theoretical knowledge that it is done in a certain way. So we need at least to call the practical kind of knowing [']knowing how to[']. (Hornsby 1980: 84)

[Footnote:] Even this may be problematic. Someone who has never driven a motor car may say that he knows how to drive none the less, and say that on the basis of his possession of theoretical knowledge how it is done. Again, someone who has

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<sup>18</sup> To justify the existence of these two kinds of knowledge, Hornsby presents some cases in which the subject theoretically knows how an action is performed (has phenomenologically articulated thoughts about the performance of the action) but in which that knowledge is not sufficient to explain the performance of the action (cases 1-2) or is not necessary (case 3):

- 1) (...) some people can trill certain phrases of piano music to a certain standard with their right hand, but not with their left. (Hornsby 1980: 82)
- 2) Another reason for discounting particular pieces of theoretical knowledge for purposes of the explanation of certain performances is that practice is essential to the development of some skills. (Hornsby 1980: 83)
- 3) In other cases it is clearer that no substantive theoretical knowledge has to be learnt in the process of acquiring a skill. When we teach children to tie their shoe laces or to ride bicycles, what we hope to communicate is a practical capacity, and to do so by encouraging imitation and approving movements of the right sort. It seems wrong to say that anything much in the way of theoretical knowledge about how these things are done is imparted. (Hornsby 1980: 83)

become paralysed may say that he knows how to drive on the basis of having once been able to. But as Ryle used 'know how' (...), he took it to be incompatible with 'not be able (at *t*) to'. This is what I too intend. Perhaps I should really say 'knows how to do and is able to do'. (Hornsby 1980: 84)

Hornsby does not go deeper into her characterization of these two kinds of knowledge. Her point in presenting them is the claim that there is a kind of action (non-basic actions) which cannot be performed through practical knowledge and which requires theoretical knowledge of how to perform it by means of another action. Actions which do not require this knowledge are basic actions.

The kinds of action in an agent's repertoire that are basic for him are those which he knows how to do, and knows how to do otherwise than on the basis of knowing how [theoretical knowledge] they are done by him. (Hornsby 1980: 84)

Hornsby sometimes describes the practical knowledge of how to perform basic actions as 'the knowledge of how to perform an action just like that' (Hornsby 1980: 88) or 'the knowledge to directly perform an action' (Hornsby 1980: 79).

One consequence of this characterization is that, contrary to what is normally thought, many actions that are normally considered non-basic actions turn out to be basic actions since they are directly performed and involve practical knowledge. So Hornsby is presenting a distinction between basic and non-basic actions which does not apply to the habitual way of presenting the distinction. She explicitly accepts this consequence:

(...) such things as *speaking sentences, tying shoe laces, typing the letter 'p'*. These are all things we can do quite directly, it is said—and rightly, it seems to me. (Hornsby 1980: 79)

Another quote in this sense:

If someone utters the sentence 'Grass is green', then, even though his mouth makes certain movements—his tongue touches his hard palate with his lips parted and then touches his teeth as his lips close slightly (...)—he does not make these movements with his mouth because he believes that they are a means of saying that grass is green. (...) But if he has no beliefs about moving his mouth in a particular complicated way,

then (...) his making movements of the mouth of this sort is not what is basic.  
(Hornsby 1980: 81)

Uttering 'Grass is green' and tying shoelaces, although composed of the different movements of the mouth or hand, are directly performed. These performances do not require theoretical knowledge: the knowledge used to perform them does not involve a belief about the relation between these movements and the action of uttering 'Grass is green'. They are thus not cases of non-basic actions.

According to this view, non-basic actions would be actions like travelling to Paris or going to buy the newspaper. When performing such actions, the subject does not know how to perform them directly and their performance necessarily involves theoretical knowledge. Hornsby's examples of non-basic actions are the following (in brackets the basic action or actions by means of which the subject performs the non-basic one):

- (I whip the egg whites so that) I shall be able to cook meringues.
- Causing myself to write a letter to a friend (by summoning up an image of him).
- If I make a cake, (there is a series of things I do—weighing flour and beating the mixture among them).

These cases are similar to the action of knotting the tie by following a tutorial. It seems that in Hornsby's view, performing directly and by means of another action (which, for her, requires the exercise of theoretical knowledge) are incompatible features. However, a non-basic performance seems to present both. There is a regress which appears in the performance of what Hornsby considers basic actions (for instance, the regress which appears when writing 'Grass is green') and it is what is at stake in the discussion initiated by Danto. This regress is not explained by Hornsby's view, although, in fact, some of the examples that Hornsby uses to illustrate non-basic actions seem to be cases of what she claims are basic actions. Let us remember the case of the golf player who hits the ball correctly by following through (Hornsby 1980: 75). According to her view, hitting the ball should be characterized as a basic

action, since it is an exercise of practical knowledge—at least, by an expert golf player. However, she uses this case to illustrate the phenomenon of non-basic actions.

Following the mainstream view, I think that there is a non-basic phenomenon to be explained in actions such as uttering ‘Grass is green’ or tying one’s shoelaces. Is the person saying ‘I perform the action of tying my shoelaces by, among other things, grasping one end of the lace’ saying something false? If they are not, then we still have the same problem that Danto presented: a possible regress which needs the introduction of something basic to end it. In this case, what Hornsby considers to be basic actions become a non-basic action, and a more basic performance should be introduced. This is an important problem for Hornsby’s view.

Even without offering an explanation of non-basic actions, I think that the teleological framework (according to which basic performance is the result of the subject’s knowledge) is better placed than the causal framework. For instance, the teleological view is capable of explaining the fact that when performing a non-basic action, only one (complex) action is involved: if what results in the basic action is the knowledge of how to perform the non-basic action, only the performance of the non-basic action is necessary. This kind of explanation might require, however, something more similar to practical knowledge than to theoretical knowledge in order to explain the regress in direct performance. Before trying to develop this kind of explanation, let us first see, how this view could respond to some of the problems of the causal framework:

- [Problem 1/7 for causal theories] The first problem for theories within the causal framework was Stoutland’s counterexample. The teleological framework does not accept that ‘I move my arm by putting the alarm clock beside the bed the night before’ describes a non-basic phenomenon, since the subject *does not conceive* of the action of moving their arm as an action performed by putting the alarm clock beside the bed. The subject knows that the night before they put the alarm clock beside the bed, but this is not knowledge that is necessary in order to perform the action of moving the arm.
- [2/7] Some authors required the causal approach to characterize non-basic performance, excluding the possibility of it being a relation between two *non-*



*overlapping actions*. In the teleological view, basic action is the result of non-basic performance and thus only *one complex performance* is involved. This is an important positive aspect of the teleological view: the teleological view does not need to be complemented with a theory of action individuation. However, it is true that sometimes Hornsby seems to present a view in which, when the subjects use *theoretical* knowledge, they seem to perform *two* actions. The teleological view should find a way of referring only to one action. I think that the notion of practical knowledge is what guarantees the performance of only one action.

- [3/7] The teleological view can explain those non-basic performances whose basic action happens after the non-basic one. For causal approaches, the *club following through* could not be the basic action of *correctly hitting the ball* since it happened after the action which it was supposed to cause. For the teleological view, in contrast, basic actions are the result of the knowledge of how to perform non-basic actions, and they can be performed after the non-basic action.
- [4/7] Another positive aspect of the teleological view is the fact that it is capable of explaining why, when performing a non-basic action, the subject is more involved in the performance of the non-basic action than in performance of the basic action. Causal approaches seemed to claim that the main performance of the subject was the basic action, which resulted in the non-basic one. For the teleological view, in contrast, what the subject performs is the non-basic action.
- [7/7] The teleological view is capable of making the difference between the expert knotting the tie and the person following the tutorial in terms of a difference in the kind of knowledge involved. The performance of the inexperienced is the result of their theoretical knowledge and the performance of the expert is the result of their practical knowledge. So, this view supports the difference I have presented between the two kinds of performance. The problem is that I claimed (contrary to Hornsby) that non-basic actions are characterized by practical knowledge.

Problems [5/7] and [6/7] for causal views cannot be solved by Hornsby's way of presenting the teleological view. Problem [5/7] required basicness to be treated as an absolute property. Claiming that basic actions are those actions which are directly performed, as Hornsby claims, is to treat basicness as an absolute property. However, as I have said, this claim is problematic since it does not characterize basic actions. Problem [6/7] referred to the fact that different numbers of action–means should result in the same kind of performance, and, for the moment, the teleological view, according to Hornsby's way of presenting it, does not solve this problem since different numbers of action–means result in different kinds of performances.

Is there any other way of producing a *teleological* theory that is different from Hornsby's way and which presents *non-basic actions* as being *directly* performed? I cannot simply propose that the non-basic action is performed through what Hornsby calls 'practical knowledge'. First, that knowledge does not explain the fact that non-basic actions are actions performed *by another action*. This aspect seems a necessary element in any characterization of the phenomena of non-basic actions and leaving it out would leave the phenomena unexplained. Second, it is not clear that practical knowledge results in the means–end structure of non-basic performances. Hornsby's view is ambiguous with regard to practical knowledge. She claims that her view is teleological since, due to theoretical knowledge, the subject conceives of the performance of non-basic actions as occurring by means of another action. Hornsby does not say anything about whether practical knowledge, in being opposed to theoretical knowledge, is also a teleological notion. A teleological development of practical knowledge needs to answer the following question affirmatively: When practically knowing how to perform an action, is there *something by means* of which the subject performs that action?

### **Development of Hornsby's proposal: the movements to perform an action**

I propose to divide the phenomena of non-basic actions into two different processes, and to explain them separately. The first process explains the performance of the non-basic action as the result of the *practical knowledge* required to perform the non-basic action *by moving the body*. This point guarantees direct performance. The second

process explains the fact that these movements ultimately are the action through which the non-basic action is performed. Bodily movements involve different goals and the subject can (but need not) become aware of those goals as action-means (the subject, in the case she is aware of the movements of the non-basic action, grasp these movements as an action-means which satisfy on of these goals). This second process, through which the subject accesses the goals, explains why non-basic actions are actions performed by *another action*.

These two processes form the phenomena of non-basic actions thus:

- a) Non-basic actions are actions that the subject knows how to perform by moving his body.
- b) Bodily movement is goal-structured and the subject can (but need not) be aware of it as actions which satisfy the corresponding goals.

*a) Non-basic actions are actions that the subject knows how to perform by moving the body*

Point (a) refers to the performance of the action. I suggest that the knowledge involved in performing the non-basic action is *the knowledge required to perform the action by moving the body*. Those critics of Danto who argued that his account of regress was unclear (Sneddon 2001, Thompson 2008, Lavin 2013, Martin 1972) were thus partly right. The regress was not well described by (the early) Danto when introducing the phenomenon, and the performance of an action by *another action* does not happen. However, in contrast to those critics, it might be said that the regress requires the introduction of basic performance: the performance of bodily movements.<sup>19</sup>

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<sup>19</sup> Lavin (2013) seems to accept something similar to my view when claiming the following:

Some will object that not everything done intentionally has the temporal structure of *kinesis*: neither instantaneous action (*start, stop, arrive, win*) nor Aristotle's *energeia* (*see, think, live well*) give application to the idea of *completion yet unattained*. That is correct. And this essay does not address directly whether there must or can be action with some other temporal structure that is basic. I am not troubled by this limitation. In the first place, I would consider

This view:

- explains the *direct* performance of the non-basic action: when an action is performed by moving the body it is *directly* performed;
- also avoids Stoutland's counterexample since it involves only one performance;
- presents basicness as an absolute property, and what stops the regress is bodily movement;
- also explains the fact that there is no relevant difference in the way in which the following two non-basic actions are performed:

(1) I open the case by turning the switch by carefully moving my arm.

(2) I cross the street by taking steps.

There is no difference in the way in which (1) and (2) are performed since both are performed by simply moving the body. The fact that the action is performed by one action or two is the result of aspect (b), which is not the performance of the action.

One consequence of this proposal is that non-basic actions should always involve a *bodily movement*. Julia Annas (1977), arguing against this kind of picture of non-basic actions, presents three examples of possible non-basic actions performed without moving the body:

(a) I might stand still in order to do something else,

(b) I may cut someone by not greeting them when they greet me, and

(c) I may break the law by not checking the tyres.

I think that the right strategy to deal with these counterexamples is to argue, first, that either they ultimately involve a bodily movement or that they are not examples of the

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[this] essay a success were it to establish that if basic action is to be anything at all it cannot be durative and telic (Lavin 2013: 31, n.35)

Maybe movements to perform an action can be such a thing that is not durative and telic.

non-basic phenomenon. For instance, standing still in order to carefully listen to someone's voice seems to be a case of refraining from moving, which can be argued to be *a movement*, even if the result is that one stands still (this position is endorsed by, for instance, Bach 2010). In the same sense (and only to the extent to which offending someone is something I perform, which is a problematic claim), potential counterexample *b* can also be argued to involve movement. Case *c*, in contrast, does not seem to be a case of non-basic performance. The subject does not perform the breaking of the law. The breaking of the law seems to be a non-willed consequence of the fact that the subject did not check the tyres. Even if sentence (c) uses the preposition 'by', this sentence does not, I suggest, describe a case of a non-basic action.<sup>20</sup>

Another consequence of my view is that basic actions cannot be performed without the context of the performance of a non-basic action. Basic actions are the movements required to perform an action and they can only be performed if a non-basic action is performed. In this sense, raising one's arm, which was an example of a basic action and which might be performed without the context of another action, turns out to be

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<sup>20</sup> I propose a fourth possible counterexample. Imagine that every time I feel I am becoming nervous, I calm myself by summoning up an image of sea waves, and that it happens in a direct way. In this case, I perform the non-basic action of calming myself by doing something which does not involve a movement (summoning up a mental image). I say to myself 'calm down' and this results, on the one hand (and only presented in order to make the example more plausible and intuitive) in my breathing deeply, and, on the other hand, in the mental image occurring to me. This calming myself down by summoning up an image does not involve movements. This possible counterexample opens the possibility of a non-basic mental action which does not involve bodily movements and might undermine my characterization of the non-basic phenomenon.

I think that if we accept the existence of non-basic mental actions, the way to explain them is either:

(a) to consider that *bodily* non-basic actions and *mental* non-basic actions are actions of a different kind (based on a possible difference between bodily actions and mental actions) and to try to *apply the conclusions concerning bodily non-basic actions to mental non-basic actions* (modifying whatever is necessary), or

(b) to *consider that mental activity and bodily movement are two facets of the same kind of performance*, and thus consider that all non-basic actions are actions performed by means of this kind of basic performance which includes bodily movement and mental activity.

In either case, it is important and useful to start the analysis by analysing bodily non-basic actions, which is my goal in this chapter.

a non-basic action performed by the movements of the arm and of other parts of the body in order to perform it.

Considering basic actions as the movements of the body required to perform the action is what Danto, after his causal characterization, finally presents in 1979. According to Danto (1979), basic actions are the movements required to perform non-basic actions and they are only performed in order to perform the non-basic action, which means that they cannot be performed in isolation<sup>21</sup>:

(...) basic actions may acquire their status as such in being parts of nonbasic actions, outside of which those basic actions would be but mere bodily movements (...). (Danto 1979: 478)

He claims that, accordingly, basic actions and non-basic actions are performances of different kinds and that they cannot be individuated in the same way:

So when we raise our arm in a calisthenic gesture, much the same, one is certain, would be revealed: quantities of separate movements which fuse, under gross perceptualization, into a single graceful arc. (...) And thus exist as aggregates of countless minute changes. (...) And these minute motions, were we to count them as basic actions, would be indiscriminable, while the integral movements they are parts of would, though discriminable, not be a basic action but a collection of them. (Danto 1979: 474)

Although Danto does not give a detailed explanation of how non-basic actions cause basic actions, he indicates that this relation might rely on the *powers* or *bodily abilities* of the subject, which might be learned in infancy:

*Which* bodily movements may be elicited causally by representations [the representations which the non-basic action satisfies] is, naturally, a wholly empirical matter: the limits of our powers are discovered pretty quickly in infancy, but we may have powers we have not learned about even as adults. (Danto 1979: 482)

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<sup>21</sup> Danto presents this point by proximity to Frege's Context Principle: never ask for the meaning of a word in isolation, but only in the context of a proposition (Frege 2010 [1982]).

So perhaps by analogy we might say that what within the context of a nonbasic action is a basic action [in some other context is not] (...). Hence it will not carry its status as an action with it when separately executed. (Danto 1979: 477)

According to this proposal, there are, on the one hand, non-basic actions which are the actions that the subject performs and, on the other, basic actions which are the bodily movements in order to perform those non-basic actions and which are only performed in order to perform a non-basic action. Since basic actions are movements and not actions, they are not individuated as actions are.

Danto's view, however, does not manage to explain an important trait of the non-basic phenomenon: the fact that the subject is aware of the non-basic performance as an action performed *by another action*. Apart from his claim that basic actions are not individuated as actions are, Danto also holds that the performance of basic actions does not imply a special awareness of these actions as basic actions. He is not very clear on this matter and sometimes he seems to claim that the subject cannot be aware of them as *basic* actions, and, at other moments, that the subject does not experience them in any way at all.

(...) it does not follow from the fact that the occurrences the argument subtracts from are observed that the basic actions themselves must be observed: for all we so far can tell, they could occur beneath the threshold even of their agents' own observations. (Danto 1979: 472)

Bearing in mind that, in his first proposal, Danto held that subjects were aware of their basic actions as *basic* actions (see footnote 8), and that here he is presenting this aspect in opposition to what he claimed in his first theory, I think that the best way to understand this point is as claiming that subjects are not aware of their basic actions as basic. However, the examples and the arguments given support this point through the wider point that subjects might not be aware of their basic actions at all (if there are not aware of their basic actions, they might not be aware of their basicness). One of the cases he uses to illustrate this point is the drawing of a leaf by Matisse:

I once saw a film of Matisse, drawing a leaf, inscribing that celebrated sharp, clean line onto white paper with what appeared to be a single draftsmanly stroke, incisive as the movement of a sword in the hand of a master. But the identical sweep proved, in slow motion photography, to be a series of starts and dashes, thrusts and hesitations, as though each segment of what one now appreciated as a broken trajectory, implied a distinct artistic decision: a speeded up film of what we see as a

mountain climber laboriously picking his way up a dreadful slope might make it look as sharp and linear as a skier's brilliant path. (Danto 1979: 473-474)

As Danto presents this case, Matisse is not aware of the different fragmented segments of the trajectory of his hand.

His picture is problematic since it does not explain in a complete way the phenomenon of non-basic actions. An explanation of that should say something about why the subject performs an action *by another action*. A necessary condition for the non-basic phenomenon is the possibility of introspective access to the performance of a non-basic action by another action and Danto's view does not explain this aspect. The movements needed to draw the line were aggregates of countless and indiscriminable minute changes which are not individuated as actions. Imagine, however, that Matisse was to pay attention to one aspect of his drawing. In that case, he would experience that his movements perform the action of drawing the edge of the leaf. Danto's ambiguity about the experience of the basic action hides, in part, this problem. If basic actions are not experienced, he is not obliged to acknowledge that he does not have an explanation of how they can be experienced as actions. In order to make the characterization of basic action as the movements of an action plausible, I think that it is necessary to explain how the movements are finally action-means of the non-basic action. Bodily movements are goal-oriented, and the subject, under certain circumstances, can be aware of them as an action which fulfils goals.

*b) Bodily movement is goal-structured and the subject can (but need not) be aware of bodily movement as actions which satisfy goals*

I propose to explain the element *by means of another action* as the result of the fact that movements are goal-directed and that the different goals are the goals of an action (or of a potential action).

That goal-directed movements are introspectively accessible as an action, would explain the awareness of the subject to the non-basic phenomenon as an action performed by another action. A necessary condition to claim that the subject can be aware of goal-directed movements as an action seems to be that the subject possesses



a concept which describes the goal as an action (a concept which identifies non-inferentially this goal-directed bodily movement with an action). Thanks to this concept, subjects can be aware of her movements as an action. Some of these concepts come from the basic learning of bodily movement (e.g., *moving one's arm*); other concepts might come from some more artificial learning processes (e.g., *changing gears*); and still others might be theoretically introduced (e.g., *moving the phalanx of the index finger*).

According to this view, when is the sentence 'A subject performs the turning on of the light by flicking the switch' true? I propose that a sentence describing a non-basic action should be understood in the following way: 'A subject performs non-basic action *a* by moving their body in order to *b*, where *b* stands for a bodily concept which identifies non-inferentially this goal-directed bodily movement with an action which satisfies *b*'. For instance, the sentence 'A subject performs the turning on of the light by flicking the switch' is true when that subject performs the action of turning on the light by moving their body and they have a bodily concept which non-inferentially identifies (part of) their bodily movement as flicking the switch. I think that for the sentence to be true, it is not necessary for the subject to be aware of their movement as the action of flicking the switch, it is only necessary that the subject possesses the concept. It is unintuitive to claim that the answer to the question depends on the awareness that the subject has of their action: I would like to claim that my turning on the light every night when going into the kitchen is always performed by turning on the switch, independently of the detail of my awareness of my bodily movements. Thus, for the same non-basic action performed by the same person, at different moments, the sentence 'A subject performs the turning on of the light by flicking the switch' will always have the same truth value.

This view might explain the apparent elusiveness of basic actions. The goal-directed structure of bodily movement is hierarchical (the movements which are oriented to rise the hand are composed by the movements to move some fingers). I think that the limit of the regress is determined by the concepts that a subject has. The fact that many actions which seemed to be basic turn out to be non-basic is explained by the possibility of individuating the movements of an action as an action, as long as the necessary concept is possessed.

A very important consequence of this view is that it introduces the performance of an action which is the result of the subject's knowledge of what is required to perform an action by moving their body and which is independent of the subject's will. This point will allow us to provide an explanation of passive actions.

### **The relation between the non-basic phenomenon and passive actions**

Let us now return to the relation between passive actions and basic actions, to see whether the conclusions concerning basic actions can shed light on the existence of passive actions.

In Chapter 0, I characterized passive actions by the fact that the experience of them involves the experience of non-agential causes (and related feelings, such as the feeling of *distance* or *detachedness* with respect to what the agent is performing, and of being an *observer* of the action). To the extent to which basic actions are the result of the knowledge required to perform an action, the performance of the basic action can be presented as being rather autonomous with respect to the subject's will, which could explain a feeling of oneself not being the cause of the action. I propose to identify passive actions with the actions that bodily movements perform and to explain the phenomenology of passive actions by the fact that these actions are not the direct result of the conscious subject.

I presented the following problems for the possible identification of passive actions as basic actions.

Some passive actions did not seem to be basic actions since, first, most passive actions were performed by another action (for instance, doodling); and second, according to some views of basic actions (such as the one I endorse), basic actions are actions that are performed in order to perform a non-basic action. There are, however, passive actions which are not the means of performing another action.

Some basic actions do not seem to involve an experience of passivity. I presented a possible relation between basic actions and the feeling of passivity since a basic action is not something directly performed by the subject. However, some basic

actions are not passively experienced (for instance, if Matisse pays attention to the movement of his hand when drawing a line, the action becomes experienced actively).

And, thirdly, basic actions always constitute a dimension of acting (all actions are performed by basic actions) while passive performances, as characterized, are not necessary to all action.

Let me now address face these problems.

The view I presented does not have a problem explaining the fact that there are passive actions which are performed by means of another action. The usual picture of passive actions presents a regress composed of non-basic actions, which is finally stopped by an ultimate basic action. On the view I am presenting, there is a non-basic action and all the other actions which might constitute the regress of actions are basic actions.

Intuitive picture:

$a_1$  [*non-basic*] by  $a_2$  [*non-basic*] by  $a_3$  [*non-basic*] by  $a_4$  [*basic*]

My view:

$a_1$  [*non-basic*] by  $a_2$  [*basic*] by  $a_3$  [*basic*] by  $a_4$  [*basic*]

For this reason, being a passive action and being performed by another action are not incompatible.

The second problem refers to those passive actions that are not the means for performing a non-basic action. I think that this is a substantial problem. It poses the question of whether bodily movements can be performed without the performance of a non-basic action and whether the knowledge of how to perform an action can be effective without the performance of the action. To explain passive actions as basic actions, the performance of basic actions without the performance of a non-basic action should be introduced.

This kind of view requires that the body moves (intentionally, which means that this bodily movement is different from the movement of a nervous tic) without the

performance of a non-basic action. This is a difficult position: what sort of theory might allow that movements are autonomously performed without the performance of an action? Is the performance of a basic action without the performance of a non-basic action possible?

The third problem refers to the fact that some basic actions are not experienced in a passive way, especially when we pay attention to them. This actually does not enter into tension with my characterization of passive actions, since I introduced passive actions as being embedded in a dynamic process between the passive experience of them (implicit and explicit) and the active experience of them. Attention is important in this dynamism. However, this point requires an explanation of why basic actions, although related to an experience of passivity, are actively experienced in some situations.

While basic actions are a constant dimension of action, passive actions are not. However, according to my proposal, to the extent to which basic action is a possibility, passive action should also be conceptualized as a constant possibility. In Chapter 0, I presented this possibility when I claimed that passivity could be a constant possibility. In almost all actions, one aspect of performing them might become accessible as a passive action. I will develop this point when developing my own view.

In conclusion, after responding to these four problems, I think that the fact that an action is performed by moving the body might help to explain passive actions, only if the following claims are confirmed:

- The performance of bodily movements is caused by a passive mechanism, maybe ‘knowledge-how’, which results in these movements independently of the subject’s will. (The phenomenology of what is caused by this mechanism should be a passive phenomenology.)
- The performance of bodily movement without the performance of a non-basic action is possible (since passive actions are not actions performed in order to perform another action).

- This passive mechanism sometimes results in active actions, which explains those cases in which the subject pays attention to basic actions and they are actively experienced.

### **Conclusions of the chapter**

In this chapter, I have related two different phenomena which, as far as I know, have hitherto been discussed separately: passive actions and basic actions. I have explored the possibility of explaining passive actions through the notion of basic actions. Basic actions were introduced as a theoretical category by Danto (1965, 1973) to explain the phenomenon of non-basic actions and to stop the possible infinite regress that that phenomenon introduces. Which performances count as basic actions, however, was not evident and was not clearly introduced in the argument (mainly due to the fact the notion of non-basic action, which started the argument, was also unclear).

I conclude that basic actions are the *movements of an action*, which are goal-directed (towards goals which are the goals of an action). Basic actions are thus the result of a mechanism which is different from what, in a pre-theoretical way, is called 'the subject's will'. I claim that this mechanism results in the experience of passivity which characterizes passive actions.

I presented, however, some requirements for explaining in this way passive actions. Apart from the passive phenomenological output, it seems necessary to expand on the performance of bodily movements outside the context of the performance of a non-basic action. It means that movements should be performed autonomously by a subject —and yet without the performance of an action by a subject. It is also necessary to explain those cases in which the basic action is not experienced in a passive way, but in an active way. In the next two chapters, I explore how different theories explain bodily movements.

According to my conclusions of this chapter, the performance of an action has two dimensions: the performance of an action and the performance of the movements of the action. While the former can be conceptualized as something that results from the subject's will, the latter seems to depend on mechanisms that are different from the

subject's will. The main conclusion is, I think, the need to introduce a mechanism which is not the subject's will and which can explain the experience of passivity of some actions.

Although important differences remain, these conclusions follow the first of the two strategies I introduced at the end of Chapter 0: the one I expounded on in Chapter 1 (presented differently by Clark and Dreyfus) according to which, what explains the experience of passivity is the existence of a mechanism that is not related to the subject's will.



**Explaining passive traits**

**by explaining the movements of an action**

My hypothesis in Chapter 3 is that a correct explanation of basic actions would also explain why some actions are passive actions. The next step in my project is to characterize such movements, and see whether this characterization ultimately allows me to explain the existence of passive actions, i.e., whether this characterization satisfies the desiderata I presented at the end of Chapter 3.

The characterization of bodily movements should meet the following two constraints which can explain passivity:

- (a) movements should be characterized as the result of a *passive mechanism*, which
- (b) is different from the will-based mechanism which seems to be involved in the performance of (some) actions.

The other two constraints necessary to explain passive actions were:

- It should be explained how passive actions resulting from this mechanism sometimes become active actions.
- The performance of bodily movement without the performance of a non-basic action must be possible.



Movements are thus a *one dimensional* or *two-dimensional structure* of action—the other dimension being the performance of the action. Features (a) and (b) follow an intuition shared by the theories presented in Chapters 1 and 2: the explanation of the experience of passivity should be sought in the characterization of the movements of an action.<sup>22</sup>

<sup>22</sup> In Chapters 1 and 2, I explored different theories which proposed explanations of passive actions. I now present the relation of these theories with features (a) and (b) which result in the experience of passivity:

Feature (a):

		Movements are the result of a passive mechanism	
<b>My hypothesis</b>		Yes	
Strategy 1	Clark	Yes	
	Dreyfus	Yes	
Strategy 2	Bach #1		No
	Bach #2 (/ Proust)	Yes	
	Searle		No
	Pacherie	Yes	

Feature (b):

		All actions share the same structure: a <b>two-dimensional structure</b>	All actions share the same structure: a <b>one-dimensional structure</b>	There are <b>two different structures</b> of action: one for active actions and another for passive actions
<b>My hypothesis</b>		X		
Strategy 1	Clark	X		
	Dreyfus			X
Strategy 2	Bach #1		X	
	Bach #2 (/ Proust)		X	
	Searle		X	
	Pacherie		X	

I grant that the idea that *bodily movements* are passive is, at present, rather unclear. However, I think that such a passive characterization can be developed (very generally) as follows: *bodily movements should be characterized as resulting from a mechanism different from what is generally called 'the will'*. Two important remarks are in order concerning this way of characterizing bodily movements.

First, the stated condition is not sufficient, since all theories of action include independent-of-the-will mechanisms which result in movements (in particular in order to explain the fine-tuned adaptation of movements). It is also necessary that the movements resulting from this passive mechanism have a phenomenological output which makes their independence from the will transparent. Another way of stating this condition is to say that this independent-of-the-will mechanism is at the personal level.

Second, although this mechanism should be independent of the will, it should characterize bodily movements as the movements of an action. This means that these movements should, for instance, be under the control of an agent, or experienced as something performed by the subject (which is different from the movements of a nervous tic). I will sometimes refer to this second condition as the requirement to explain *the relation of bodily movements to the agent* or, in other words, to explain bodily movements as *agential movements*. This requirement can be satisfied in different ways. I will discuss some views which do not explain this relation, and others which explain it in problematic ways.

Any characterization of action that meets these two constraints importantly contrasts with theories which hold that all kinds of actions share the same (one-dimensional) structure. Such theories struggle to explain the passivity of action, since its one-dimensional structure has an active character. Among such theories, so-called 'causal theories of action' stand out. In the rest of this chapter I discuss how causal theories characterize action, and I discuss some alternative theories which maintain, in accordance with my hypothesis, that there are two different dimensions of action, and not only one. My discussion will focus on the dimension concerning bodily movements. My goal in this chapter is to explore different theories of bodily movement which seem to meet constraints (a) and (b). I first present the view of John A. Bargh (Bargh and Morsella 2008; Bargh and Chartrand 1999) which explains

movements by positing sub-personal processes independent of mental states. I will point out that this view ultimately does not characterize movements as agential movements. I will explore whether the comparator model (Helmholtz 1866; Frith, Blakemore et al. 2000)—in which sub-personal processes explain the subject’s feeling of being the agent of their movements—can complement Bargh’s view and finally enable the sub-personal approach to explain movements as agential movements. I will then discuss a second alternative to causal theories of action proposed by Helen Steward (2013, 2012, 2009, 2000) and Jennifer Hornsby (2012, 2004). This alternative view characterizes movements as resulting from a particular engagement of the agent: an engagement which is essential to action. Thus the problem of explaining bodily movements as agential movements does not arise. However, it seems that their way of explaining them through the agent either fails to introduce a different dimension, or it characterizes such engagement simplistically and so does not provide resources to explain control and other relations of subjects to their movements. Finally, in an Appendix to this chapter, I ask whether theories of know how could help to develop a theory of the movements of an action. Two reasons justify this exercise. First, as we have seen, when discussing the phenomenon of non-basic action, some authors relate basic actions and non-basic actions by appealing to know-how (Hornsby 1980; Danto 1979). Second, the debate about know-how is a debate about how a subject moves their body skilfully to perform an action, and these considerations seem very pertinent here. However, in the end, it turns out that this debate does not provide any new positions or arguments concerning bodily movement. I will suggest that it is the philosophy of knowledge-how which needs a theory of the movements of an action, and not the other way round. The conclusions drawn in the Appendix will, however, be useful since they confirm some of the points raised in discussing the other two alternatives.

- 4.1. The Causal Paradigm and its (two-dimensional) alternatives
  - 4.2. Two sub-personal explanations of bodily movement: John A. Bargh and the comparator model
  - 4.3. An agential explanation of bodily movement: Jennifer Hornsby and Helen Steward
- Appendix: Could the debate on knowledge-how help here?

In Chapter 5, I will present my own positive view of the movements of an action, which I believe succeeds in coherently explaining passive actions.

### **The Causal Paradigm and its (two-dimensional) alternatives**

Although the claim that *a (bodily) action is performed by moving one's body* seems to be a truism accepted by almost all theories of action, this claim in fact contrasts with those theories which claim or presuppose that performing an action and performing the associated movements are the same thing: that performing an action is nothing but moving one's body. Among such theories, there are, in particular, so-called 'causal theories of action'. Those theories characterize actions as *instances of bodily behaviour* caused and rationalized by mental states of a certain kind. They are called '*causal* theories of action', since they claim that actions are caused by the subject's mental states.<sup>23</sup>

The paradigm contemporary exponent of this view is the author of the following quote, Donald Davidson:

[W]e never do more than move our bodies; the rest is up to nature [...]. (Davidson 1980: 19)<sup>24</sup>

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<sup>23</sup> Although it is an important paradigm in the philosophy of action, in this thesis I hardly ever use this label. The theories of Bach (1978), Searle (1983), Pacherie (2008), and Proust (2003), discussed in Chapters 1 and 2, are normally included in this paradigm. However, they display strong differences, both among themselves and from the standard characterization. For these reasons, I have preferred so far not to mention that they all belong to this paradigm, and instead to discuss them individually.

<sup>24</sup> The first references to this view of action can be found in Hobbes (2003 [1651]). According to Hobbes, what common sense calls 'the will' is the desire which is present to the agent's mind at

Despite this claim, Davidson accepts that we perform actions such as travelling to London or buying a cake. Actions are bodily movements which stand to the mental state that causes them in a *quasi-intensional relation* (Davidson 1980: essay 1; 1985).<sup>25</sup> Whereas the causal relationship between events exists *independently* of specific descriptions, explanations of action have a quasi-intensional character—the events are referred to under specific descriptions (for instance, travelling to London or buying a cake) in relation to each other. Explanations of action and attributions should not, however, be conceived as purely intensional contexts, since in them reference is made to the events themselves. Hans Jürgen Heringer (1978) understands the relation between the fact that there is only *one* causal relation between movements and mental states, and the fact that actions can be described in different ways, as follows:

It has been supposed that we have here two different descriptions of the same act. But this should not be understood in the sense of alternative descriptions having equal rights. They should be understood, rather, as complementary descriptions each of which gives only one aspect of the act, no one description characterizing it sufficiently. The case seems to be analogous to the case where I buy a house and I buy something red where I need not have bought two things and I need not have performed two acts; it is possible that I bought a red house. (Heringer 1978: 25-26)

Conceiving of action as bodily movement is incompatible with my project of explaining passive action in terms of bodily movement, since, according to this view, movements are actions and *no passive phenomenological* trait can be attributed to them.

Many problems for this paradigm view and for the theories developed within it have been raised and some alternatives have been proposed. I will focus on only two of the usual objections to it. I am interested in them because they lead to two interesting

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the end of deliberation, and which causes the agent's action. David Hume's formulation of such a view (2000 [1738], 1999 [1748]) has also been very influential.

<sup>25</sup> Whereas a causal relationship between events exists independently of specific descriptions, explanations of actions have a quasi-intensional character. Explanation of actions and attributions should not, however, be conceived as purely intensional context, since their reference is to the events themselves.

characterizations of movements, according to which movements could exemplify the passive traits of passive actions.

The first objection to the causal paradigm concerns the causal role of mental states. There are actions which do not seem to be explicable by the subject's being in a mental state which causes and rationalizes action, as required by the causal paradigm (see Chapters 1 and 2). This problem includes the problem of passive actions, in which the action seems to happen without apparently being caused by a mental state. Mental states are, then, apparently superfluous to a general explanation of action. However, the causal paradigm requires these mental states since, without them, nothing can explain what makes the movements of an action different from the movements of a nervous tic. Some authors modify the causal paradigm and propose a deflated notion of a mental state which is presented as the cause of the action. In Chapter 2, I discussed the modifications by Bach (1978), Searle (1983), Pacherie (2008) and Proust (2003a), which, following this paradigm, posit, rather than a mental state representing the action to be performed, a mental state representing the movements—which, in some cases, could be unconscious. Other authors, for instance Clark (2007, 2001) and Dreyfus (1993, 1995, 1999, 2002, 2006, 2007), argue that these modifications cannot solve the problem and that another explanation of action should be proposed. As an alternative, they offer various kinds of sub-personal explanations of action. However, none of them endorse a pure sub-personal explanation without mental states. To solve this problem, John A. Bargh (Bargh and Morsella 2008, Bargh and Chartrand 1999), whose view I present next, endorses a pure sub-personal explanation of bodily movements. That view, as we will see, ultimately lacks the resources needed to explain the active character of action.

A second standard objection to causal theories of action is the so-called 'disappearance of the agent', a term due to J. David Velleman (1992, 2000b; also presented and developed by Bratman 2001; Enç 2003; Schroeter 2004; Hornsby 2004; and Korsgaard 1996). According to this objection, theories within the causal paradigm fail to capture the phenomenon of agency because they leave the agent out of the picture: the mental states which cause and rationalize bodily movements are not sufficient to explain the fact that, when acting, it is *the agent* who acts.

The following two quotes by Velleman (1992) and Schroeter (2004) describe this problem:

In this story [the story provided by causal theories of action], reasons cause an intention, and an intention causes bodily movements, but nobody—that is, no person *does* anything. [... M]y objection is that the [mental] occurrences it mentions in the agent are no more than occurrences in him, because their involvement in an action does not add up to the agent's being involved. (Velleman 1992: 461-463)

One of the main shortcomings often attributed to the standard theory is that it leaves the agent out of his actions and thus fails to account for a central feature of human agency—our self-governance or autonomy. In normal circumstances, human actions are executed under the guidance and at the command of the agents performing them. It seems just plain wrong to claim that our actions are caused by our desires. They are caused by us, the agents. (Schroeter 2004: 634)

This criticism of the causal paradigm is implied by views which hold that the kind of causality involved in action is not event–causation, but agent–causation (Chisholm 1966, 1976; Lowe 2008): where event–causation involves an event causing another event, and agent–causation involves an agent (and not any of their properties) bringing about some event.

The usual line of defence of the causal paradigm is to reject the irreducibility of the agent and to claim that these criticisms only point out different characteristics of action (its control, its triggering or its justification) which are, in fact, explained by different mental states of the subject. Thus, while for some authors it is quite clear that, in theories within the causal paradigm, the agent is missing, others hold that such talk of a missing agent is nothing but a way of speaking of the different mental states involved in action.

These two problems for the causal paradigm point in two different directions. On the one hand, the apparent superfluous nature of conscious mental states suggests that we should *eliminate* mental states from our account of what causes and rationalizes action, and propose a more minimal explanation of action which dispenses with these. On the other hand, the disappearance of the agent suggests that something else should be *introduced* to explain action. We might even say that the potential solutions to

these problems are in conflict: while the apparent superfluity of conscious mental states indicates a more passive structure of action in which bodily movements are performed without the presence of causal mental states (thus potentially exacerbating the problem of the disappearing agent), the disappearance of the agent suggests that something more active is needed. However, both solutions follow a similar programme: eliminating mental states.

I now discuss two alternatives to the causal paradigm. The first offers a *sub-personal* explanation of bodily movements, and the second, responding to the problem of the disappearing agent, an *agential* one. Both purport to explain, through their respective characterizations, passive actions.

### **Two sub-personal explanations of bodily movement:**

#### **John A. Bargh and the comparator model**

According to the causal paradigm, an instance of bodily behaviour is an action if and only if it is caused and rationalized by the subject's mental states. In the last 40 years, research in empirical science has yielded neurophysiological data and psychological results which are mostly interpreted—not usually by philosophers, but rather by psychologists and neuroscientists—as evidence that non-conscious neural processes or sub-personal processes cause bodily movements. (And these are not the processes which underlie the mental states which, according to the causal paradigm, might cause actions.) These unconscious or sub-personal processes are taken to play the role of causing, guiding and controlling bodily movements; a role that the causal theory attributes to mental states.



This view offers an interesting explanation of the passive character of passive actions: bodily movements are caused by sub-personal processes, independently of the subject's mental states. Thus bodily movements are caused by a will-independent mechanism. This view is sketched and, at times, almost explicitly endorsed by some authors who propose to explain passive actions. I will discuss the version of this view due to John A. Bargh, who endorses it most clearly. I argue that his view is ultimately an oversimplified theory of bodily movements which fails to explain how they are related to the agent. Since Clark also endorsed a view with some sub-personal explanations, some of the problems present for Bargh were already present for Clark's view (Chapter 2).

### **John A. Bargh's interpretation of the empirical results: the unconscious unfolding of bodily movements and the illusion of performing an action<sup>26</sup>**

Before presenting Bargh's view, I will summarize some of the *data and results* employed in his argument. This summary is not exhaustive, but I think that it is representative of the different lines of research explored. I first describe lines of research in psychology and then in neurobiology.

#### *Psychological lines of research*

(1) The first piece of research is one that I discuss above (Chapter 2): the experiment by Anthony Marcel (2003b). The experimenter induces in the subject an illusion about the location of their hand. The subject is then asked to move their hand to a new location. This new location is chosen in such a way that for the subject's hand to move to it from its current location, it has to move clockwise, while it would have to move anticlockwise if it were at its apparent initial location. Although subjects

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<sup>26</sup> Coherently with the view discussed here, I will use the word 'unfolding' to refer to the performance of bodily movements. This word does not presuppose a relation of bodily movements with the conscious subject. Also the term 'purposive movements' refers to goal-directed movements in a way that is neutral concerning whether the goal is endorsed by the agent or not.

reported an incorrect intention, they succeeded in moving their hands to the new location. The motor instruction issued thus produced movements in the opposite direction to that intended.<sup>27</sup> On the basis of these results, Marcel claims that the unfolding of movements does not depend on the intention.

(2) Second, there are Benjamin Libet's time-of-intention studies (Libet 1985). In these studies, participants were free to press a button whenever they chose. They were asked to note when they felt they had formed the intention to do so. At the same time, the experimenter measured brain activation potentials associated with the instigation of action. Libet found that brain activity involved in the initiation of action occurred approximately 300 milliseconds before the moment that subjects reported that they were first aware of their intention to act. From this data, David Eagleman (2004) conjectures that *people do not generate intentions consciously but infer them based on their own bodily behaviour*.<sup>28</sup>

(3) Pierre Fournered and Mark Jeannerod (Fournered and Jeannerod 1998) performed an experiment in which subjects corrected their movements without any intention to correct them. Subjects were instructed to draw, on a digital tablet, lines in a sagittal direction. The output was shown to them on a computer screen seen in a mirror, placed so as to mask the subject's hand. In some trials, a bias was introduced in the output, such that the line seen in the mirror appeared to deviate from the sagittal direction. The subjects therefore had to divert their drawing in the opposite direction, and by the same angle, in order to fulfil the instruction. At the end of each trial, the subjects were able to accurately correct for the bias, but they reported their movement *ignoring the corrections they had performed*.

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<sup>27</sup> Unless indicated otherwise, in this subsection, I will use the word 'intention' in the non-theoretical sense in which it is used in most of these experiments, broadly referring to a subject's feeling of desiring, wishing, wanting or intending to perform an action. The theoretical use of this word normally attributes executive properties to it.

<sup>28</sup> Libet makes a similar claim. However, unlike Eagleman, he adds that these results do not support an epiphenomenalist view of consciousness, according to which consciousness plays no role in the performance of an action. He holds that the subject exercises conscious volition in the form of *the power of veto*: consciousness has a part to play in suppressing or withholding certain acts instigated by unconscious systems.

### *Neurobiological lines of research*

There are also results from neurobiological lines of research. These results usually suggest that there are two different neural structures involved in action, with almost no interaction between them: one structure in charge of motor guidance, with quick mechanisms, and another associated with consciousness, which works more slowly than is required for motor guidance. It has been argued that because of its slowness, the system associated with consciousness is unsuitable for the production of bodily movements. Accordingly, there is dissociation between, on the one hand, the unfolding of movements, and, on the other, the conscious dimension of action. Two theories of this kind (the first of which I introduced in Chapter 1) are:

(a) A. David Milner and Melvin A. Goodale (Milner and Goodale 1995; Goodale and Milner 2004) interpret certain neurobiological data as providing evidence for two different visual systems: a ventral visual system (or vision-for-perception pathway) associated with the conscious aspects involved in vision, and a dorsal visual system (or vision-for-action pathway) devoted to the visual aspects of performing bodily movements. The systems work somewhat independently. In their argument, Milner and Goodale refer to patients with lesions in the dorsal system who are able to correctly identify an object but cannot reach for it, and patients with lesions in the ventral visual system who cannot recognize the object but are able to correctly reach for it. Andy Clark (2007, 2001) suggests that while the dorsal pathway supports motor responses, the ventral pathway supports the conscious determination of the goal and of the kind of action (see my exposition of Clark's view in Chapter 1).

(b) Environmental dependency syndrome has also been presented as evidence of this dissociation (Lhermitte 1983; Bogen 1995). In environmental dependency syndrome, the subject has to rely on environmental cues to accomplish goals or tasks. It has been argued that these cases show the existence of sub-personal executive control structures, which are impaired in these subjects.

These psychological and neurobiological results are sometimes used to argue that the unfolding of bodily movements does not result from any of the subject's conscious mental states, but rather from sub-personal processes. The general argument is the following:

- A putative essential element of action (usually, an intention) is hypothesized to be the only possible way for conscious subjects to cause their movements.  
*(Usually this point is not explicitly stated but presupposed.)*
- Various empirical results are interpreted either as showing that, for some bodily movements, there is no such intention that causes them, or as demonstrating a tension between such intentions and bodily movements. The tension supposedly appears: (a) in timing (the intention is after the movement); (b) in the fact that the representations involved in the intention and in the implementation of bodily movements are of different kinds, and, because of these different kinds of representations, they cannot be causally related; or (c) in the brain locations involved.
- It is then concluded that bodily movements cannot result from such intentions and, since intentions are supposed to exhaust the causal relation between the conscious subject and their movements, *bodily movements are alleged not to be caused by the conscious subject.*

This argument is presented in various papers by John A. Bargh and his collaborators (Bargh and Morsella 2008; Bargh and Chartrand 1999). They unify the various empirical results by denying the following assumption about action,

[...] the assumption that people are consciously and systematically processing incoming information in order to construe and interpret their world and to plan and engage in courses of action. (Bargh and Chartrand 1999: 462)

I can simplify this formulation to make it more comprehensible. It tells us that the performance of actions (*to engage in courses of action*) requires a conscious perceptive subject (*people consciously and systematically processing incoming information*) forming an intention to act (*to construe and interpret their world and to plan courses of action*). In denying this assumption, Bargh and his collaborators

propose what they call the unconscious unfolding of movements: when performing an action, people do not consciously and systematically process incoming information in order to construe and interpret their world and to plan and engage in courses of action. For Bargh and his collaborators this is equivalent to claiming that bodily movements result from systematic sub-personal processes.

An important and unanswered question is what does it mean, according to this proposal, to say that *an agent performs an action*. Although Bargh talks about action and courses of action, his thesis concerns only the movements of an action. Bargh sometimes explicitly claims, and at other times presupposes, that the dimensions of action other than movement—*knowledge of action, awareness of action, reasoning about action, or the learning of a new skill*—are associated with conscious mental states. These dimensions of action are explained by the subject consciously processing incoming information, and seem to exhaust, albeit in a way that is not made explicit in the papers by Bargh and his collaborators' papers, the characterization of *the performance of an action by a subject*. He does not include any mental state which could assume the role of determining, causing, triggering or controlling an action.<sup>29</sup>

Although Bargh's thesis about the unconscious unfolding of the subject's movements is presented as a direct conclusion of the relevant empirical results, I will argue that it is not a plausible conclusion from those results.

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<sup>29</sup> There is a second interpretation of these (or similar) empirical results which proceeds in the same direction (Wegner 2002, endorsed in Eagleman 2004, and similarly propounded in Gazzaniga 1985). Mainly using Libet's experiments, Daniel Wegner proposes considering the subject as a gatekeeper, and a sense-maker after the fact. Wegner's motto is that *the subject performing an action through conscious will is an illusion*. However, when expanding on this point, what Wegner calls 'an illusion' is *the causal impact of the mind making the body do its bidding*. It is not clear what Wegner is opposed to [Mele 2009, 2004; for discussion, Pockett (ed.) 2004]. Holly Andersen (2006) argues that Wegner makes two fallacious assumptions which involve Cartesian disembodiment. Thus, Wegner would not oppose causal theories of action, since his notion of conscious will could not easily be identified with what causal theories claim—that mental states cause and rationalize action.

An initial observation concerns the use of neurobiological research to support Bargh's thesis. The thesis is formulated in psychological terms and, at present, there is no clear bridge theory for drawing psychological conclusions from neuroscientific data. The alleged roles of the different brain locations are very hypothetical, and based on interpretable neuroimages and cases of impaired people. For instance, one result of this neurobiological line of research is Milner and Goodale's two-visual-streams hypothesis. In Chapter 1, while discussing Clark's interpretation of this hypothesis, I discussed some of the papers which question the way in which Milner and Goodale interpret the data. Those papers proposed different interpretations which also seem compatible with this data (Franz et al. 2005, 2000; McIntosh et al. 2009). Even Goodale and Milner (2004) later proposed another, less radical hypothesis which introduces some connections between the two systems, and which less strongly supports Bargh's hypothesis of the unconscious unfolding of bodily movements.

In fact, not all of the psychological experiments presented are widely regarded as descriptively accurate. This is a problem in particular for those who use Libet's results as a premise. Some authors argue that Libet's experimental method is questionable, and too artificial to establish that an unconscious choice occurs before conscious awareness of choice since the calculation of time in the experiment is inherently fuzzy (Pitman 2013; Pockett et al. 2007). Daniel Dennett and Marcel Kinsbourne (1992) also point out problems with Libet's methodology, comparing the timing of the readiness potential measured using electrodes with the timing of the intention based on the subject's report, although Libet incorporated methods to avoid this problem. Recent studies point to a different interpretation: the apparent build-up of brain activity preceding subjectively spontaneous voluntary movements may reflect the ebb and flow of background neuronal noise, triggered by many factors (Schurger et al. 2016).

These two points pertain to the general use of empirical results. The following point, in contrast, disputes Bargh's premise that the only way for a conscious subject to cause their action is through an intention.

Bargh's starting point is that conscious subjects are only relevantly related to their movements if they cause them by means of their intentions or similar mental states (premise 1 in the argument presented above). However, this view is oversimplified,

as it ignores other ways in which conscious subjects are related to their movements. I understand Bargh's view as presenting a *false dilemma* between two options for explaining action: *either* the conscious subject is in a mental state reported as the intention to perform an action, and which causes the action; *or* the action results from sub-personal motor processes. According to Bargh, the empirical results rule out the first horn, so the second horn must be embraced. Admittedly, the causal paradigm appeals to this relation to explain action. However, it does not follow that this is the only relation between conscious subjects and their movements: other theories might appeal to other relations. The two ways of relating subjects and their movements which I present below seem to be incompatible with Bargh's second horn: in both, the conscious subject is involved in the unfolding of the movements, without causing those movements through an intention. If Bargh's first horn cannot be embraced, these relations seem to indicate a third possibility. They do not actually provide a general view of how conscious subjects are related to their movements, but only isolated aspects of this phenomenon. However, in recent literature, the explanation of these phenomena has come to seem more and more important on more and more importance. Bargh ignores the third possibility, and so his appeal to empirical results fails to establish that conscious subjects lack a role in the unfolding of their movements.

a) *Attention in skilled performance*

Bargh accepts that, when learning a motor skill, the subject consciously processes incoming information in order to perform movements. So he should say something about what happens when performances become skilled performances, since it seems that the conscious processes involved in the learning process somehow remain as an acquisition when the subject finally masters skilled performance. Zenon Pylyshyn (2003) points to a selective, top-down, automatic form of attention which is at work in skilled movements. That attention is responsible for selecting the relevant features in an environmental array when moving skilfully. Despite not usually being deployed as the result of explicit intentions and often remaining inaccessible to the agent, Pylyshyn argues that this attention is semantically integrated with the agent's personal-level and intentional

states. Fridland (2014), Sheets-Johnstone (2003), and Saling and Philips (2007) also present evidence that processes resulting in skilled action undergo distinctive processes related to consciousness, which might explain the specific skilled motor control. If this is correct, it significantly reduces the scope of Bargh thesis.

*b) The decision to stop an action*

Bargh talks about a conscious process of information not being *systematically* used by the subject. This claim leaves room for some non-systematic relations between consciousness and bodily movement. I think Bargh would classify some kinds of control as a non-systematic relation between consciousness and bodily movement; for instance, when the agent decides to stop a particular performance. Although not a systematic relation, this control by the agent is a constant possibility. It is not clear how to characterize this constant possibility, but it seems to constantly relate conscious subjects with the unfolding of their movements.

Indeed, these phenomena show not only that Bargh's thesis is not well argued (since he presupposes that conscious subjects can only be related to their movements through their intentions), but also that his final thesis is inadequate, since sub-personal processes cannot explain (a)-(b).<sup>30</sup>

I think that this false dilemma is what explains the tension in Clark's view (Chapter 2). Clark seems to see that the second horn is not an option, and (not seeing that the dilemma is a false dilemma) endorses the first horn and introduces the determination of the action by the conscious subject by means of something like an intention. This solution is in tension with his aim of explaining passive actions.

Finally it should be noted that Bargh is unclear about whether sub-personal processes explain the unfolding of movements in *all* actions (even though he claims so when he states the main goals of his papers), or only the unfolding of movements in *some* actions, while not explaining movements in other actions—for instance, in actions

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<sup>30</sup> To claim that Bargh's thesis is not well argued because it does not include phenomenon (a)-(b) in its premises is not the same as claiming that Bargh's thesis is inadequate because it cannot explain them. A theory could disregard a phenomenon in its premises but still explain it (perhaps by chance).



performed when learning a new skill. This latter, less ambitious view suggests that, in order to provide a general theory of bodily movement, an account of the second type of movement is also needed. (It also suggests that the scope of Bargh's thesis is not what he seems to claim.)

Thus, although a sub-personal explanation of bodily movement could be a tempting way to explain passive actions, Bargh's thesis about the sub-personal unfolding of movements is implausible. Setting aside the other problems, this conclusion rests on the oversimplified premise that the only way for a *subject to perform an action* is for there to be in a mental state that causes the performance, which is normally called an 'intention'. There are other relations between the subject and the action which are ignored here and which are relevant for a theory of action. (These other relations, however, although they point to another theory of movements, do not clearly by themselves constitute a theory of movement.) For these reasons, Bargh's sub-personal thesis is not a plausible view of the movements of an action and does not provide an explanation of passivity.

In the next section, I will explore the possibility of a sub-personal explanation of bodily movement that avoids this oversimplification. The idea is to exploit the *comparator model*, according to which the sub-personal processes leading to bodily movements also result in the subject's *sense of agency* of these movements. However, I first argue that the sub-personal explanation of bodily movements offered by this model is less ambitious than Bargh's (and that, in the comparator model, mental states are required to explain movements) and, second, that the mechanism proposed is insufficient to explain the agential character of movements, the subject's sense of agency (Synofzik et al. 2008) and also other necessary relations of subjects to their movements.

## The comparator model

The comparator model posits a sub-personal mechanism which explains the fine-tuned monitoring of bodily movements. This mechanism has recently been used to explain the sense of agency.

The model originated in Hermann von Helmholtz's answer to the following question (Helmholtz 1866; later developed in Holst & Mittelstaedt 1950): When an image moves across a subject's retina, how does that subject know whether it shows the world moving in front of their eyes, or their eyes moving across the world? The father of the modern version of this model describes Helmholtz's answer as follows:

His answer was that an active movement, moving the eyes across the world, will be preceded by a motor command, which does not occur when the world moves in front of our eyes. Information about this motor command, subsequently termed *corollary discharge* or *reaffERENCE copy*, can be used to predict the sensory consequences of the eye movement. The predicted and observed outcomes of the movement can be compared. If they match, then the changes were self-generated. (Frith 2012: 52)

According to this model, when motor commands are translated into bodily movements, the brain simultaneously models a predicted result of the movements by means of a corollary discharge—also called an 'efferent copy'. The sensory feedback from the movements is matched to this predicted result. The primary function of this mechanism is on-line monitoring and motor control: if there is a match in the system, the action has been successful and the model is reinforced; if, in contrast, a mismatch occurs, it provides the basis to fine-tune the motor commands for the relevant movement. For instance, if the prediction was that one's hand should move 5 cm to reach a target, but it actually moves 7 cm, an error signal will be generated and a new instruction to move 2 cm back towards the target will be issued to correct the error, and so on (example taken from Gerrans 2015a).

Besides that function, it is also claimed that this mechanism plays a role in action awareness and perception. According to Blakemore et al. (1999), the cancellation of the prediction copy contributes to the *self-other distinction*. The comparator system has the function of *labelling movements as generated by oneself or by an external*

*source*: congruence of predicted and actual outcome is thought to lead to self-registration and a subjective sense of agency.

The argumentation for comparator [...] as underlying our SoA [sense of agency] seems convincing: Since there is no intrinsic difference between sensory signals arising as consequences of our own actions and sensory signals arising as results from events in the outside world, we need to resort to an internal central signal, i.e. the internal prediction, and compare it with the actual sensory afference in order to distinguish between externally produced and self-produced events (Frith et al. 2000; Holst and Mittelstaedt 1950). (Synofzik et al. 2008: 221)

Evidence of this mechanism contributing to the sense of agency comes mainly from studies of schizophrenic subjects with abnormal agency experiences (among others, Frith 2005; Lindner et al. 2005; Franck et al. 2001; Daprati et al. 1997). The subjects attribute an action that they perform to someone else. The data show imprecise internal predictions which might prevent correct perception of self-action. It is thus proposed that these delusions are explained by a dysfunction of the mechanism which compares prediction and afferent signals. Synofzik et al. (2008) demonstrated over-reliance on external sensory information to control the action in schizophrenic patients, which correlated with the presence of delusions. Accordingly, if problems in the comparator mechanisms result in an impaired sense of agency, the correct unfolding of the mechanism explains the sense of agency.

It is necessary to point out a tension between the two functions of this model: first, the on-line monitoring of the movements and, second, the labelling of bodily movements as self-generated. According to the first function, some self-generated movements result in a mismatch which is corrected by the system; according to the second function, a mismatch indicates that the action is not self-generated. To solve this tension, it is claimed that only mismatches *beyond a certain sensitivity range* lead to the action being evaluated as externally produced, while others, even if they include a mismatch, lead to the self-registration of the action:

The comparator might have a certain bias or insensitivity in detecting or reporting mismatches [...]. In fact, this limited sensitivity might even be crucial to the notion of the comparator: In case of a slight discrepancy, the altered sensory feedback might nevertheless be accepted as the sensory outcome of one's own movement and can be

used for the essential continuous recalibration of one's action predictions and motor behaviour [...]. In other words, the comparator might perform a trade-off between the exactness of predictions and the tolerance range in which it is optimizable by external feedback. (Synofzik et al. 2008: 223)

The comparator model provides a *bottom-up explanation* of the sense of agency, in which the *mechanism which results in bodily movements* results in the experience of *an action performed by the subject*. This kind of explanation interestingly seems to make a passive explanation of bodily movement (an explanation of bodily movement resulting from a mechanism other than what is generally called 'the will') compatible with the explanation of (a trait) of the agential character of bodily movement: the sense of agency. So a sub-personal explanation of bodily movement would be valid.

I would like now to argue, however, that this model does not provide an explanation of bodily movement which allows us to explain passive actions. The main problem for this model is the existence of passive actions: it seems to have been built without paying any attention to the existence of passive actions.

- First, according to the usual interpretation of this model, it does not provide a passive explanation of bodily movement, since it requires, for all actions, the introduction of something like an intention.
- Second, according to the model, movements cannot have the passive character of passive actions, since the sense of agency associated with the comparator mechanism is an active experience.
- Third, an important line of criticism indicates that this model is insufficient to explain the sense of agency.
- Finally, and related to the first and third points, this model needs more development, since it only provides one phenomenological relation with the subject: the sense of agency; while to explain passive actions, other relations seem to be required (for instance, the possibility of controlling the action by the subject).

Let us now consider these points in detail.

The comparator model does not provide a *completely passive* explanation of bodily movement, since the mechanism it presents requires a previous intention. This model depends on the previous determination of a goal. It is from this previous goal, and thanks to an *inverse* process, that the brain determines the motor commands and the efferent copy. Depending on the nature of this goal—is it a goal endorsed by the subject through a mental state, or is it sub-personally determined?—this model is not a model which explains passivity. It is usually assumed that this goal is endorsed by the subject through an intention. In that case, the explanation of bodily movement offered here is not a passive explanation: movements are ultimately explained by the fact that subjects cause their movements through their intentions.

Second, to explain passive actions, I required a passive mechanism which could result *in a passive experience*, however, although the comparator model posits a mechanism based on sub-personal processes, the resulting experience cannot reproduce this passivity: if the system works normally, it results in an (active) experience of self-generation. The sense of agency that arises from this model is a sense of agency which characterizes all actions, and does not present a trait which might be phenomenologically salient in passive actions. The model does not propose an explanation for a passive sense of agency.

Thirdly, according to many authors, the comparator system is insufficient to explain the sense of agency, and other mechanisms at the personal level are required. Matthias Synofzik et al. (2008) argue that the comparator system is insufficient to determine the sense of agency, due to the difficulties involved in determining the sensitivity range. They cite experiments by Franck et al. (2001) and Farrer et al. (2003), which show that the same comparator mismatch output can lead to attributions of one's movements to oneself in some cases, and to the world in others; and they conclude that other mechanisms must be responsible for the sense of agency. They also cite Fink et al. (1999) and Slachevsky et al. (2001), according to whom feelings of agency depend on *neural signals higher in the hierarchy of control and perception* (in the frontal or prefrontal areas). Accordingly, Synofzik et al. claim, the use of the comparator model as the sole explanatory mechanism underlying the capacity or incapacity for correctly attributing agency is insufficient to explain the sense of agency. They propose a more complex model of the sense of agency, which

emphasizes the integration of internal and external cues operating at conceptual and non-conceptual levels of agency registration. The sense of agency would not only depend on the comparator mechanisms which result in the movements. To the extent to which these mechanisms are related to the subject's will, the model could not explain passive actions.

Also, Philip Gerrans (2015a, 2015b) proposes that the sense of agency arising from the comparator model does not result from the sub-personal comparator mechanism, but rather from *deliberate forms of control* which appear when the comparator mechanism detects a mismatch. He observes that the sense of agency is experienced in a clearer way when the subject *controls* a performance (for instance, when learning a musical instrument, walking through a minefield, or threading a needle), and proposes that it is such control that explains the sense of agency. According to Gerrans, a mismatch in the comparator system causes a call for attention in order to control the action, and this call for attention has a phenomenological dimension which includes the sense of agency.

It is not error signals per se which generate the sense of agency [...], but their availability for top-down regulation. On this account, slightly paradoxically, it seems that the sense of agency is more likely to arise in situations where the control of action is not automatically successful. [... T]he sense of agency arises in the interaction between this essentially proprioceptive feedback loop [the comparator mechanisms] and another feedback loop for higher level, explicit, visually guided control [...]. In this case, explicit visual information is used to control movement and reduce the error signal. [...] When predictions are sustained in this process of high-level control, we experience of the “sense of agency.” Thus, according to the account proposed here, the sense of agency is not the product of a match between prediction and action but of the matching process itself under deliberate forms of control. (Gerrans 2015a: 295)

Gerrans' main reason for characterizing the sense of agency as resulting from deliberative control is that he wants to propose an explanation of the sense of agency based on the comparator model but which also explains the sense of agency in some kinds of thoughts in which no movements are involved. If attention explains the sense of agency, mental actions can also present it.

However, although this really points out a problem with the comparator model (it only applies to actions which involve movements), the relation between the attentive control and sense of agency is not evident, and the comparator model faces important counterexamples. Many actions which do not involve deliberative control are actions in which the subject is highly aware of being the agent (for instance, actions in the flow, such as expertly returning the ball in a tennis match). In this case, the subject does not pay attention to controlling what is being performed, which is done in a fluid way. So, deliberative control does not seem to be a necessary condition for the sense of agency.

Leaving aside the problems of Gerrans' positive view, if he and Synofzik et al. are right to regard the comparator system as insufficient to explain the sense of agency, then this sub-personal mechanism alone cannot explain the sense of agency, and more cognitive systems are required. Those cognitive systems would probably involve mechanisms related to the will of the subject, which might block an explanation of passive phenomenology.

Because of all these problems, a natural question for this model is irrelevant: Does a sense of agency suffice to characterize the relation of subjects with their movements? This model purports to explain the feeling of performing an action. However, the relation of subjects to their movements seems richer than this (for instance, attention in skilled performance and the decision to stop an action, which I presented in order to evaluate Bargh's view). Can this model explain these other dimensions and keep a passive mechanism to explain the performance of an action? Unless it is developed further so as to explain the other aspects of the agential character of bodily movement adequately (while keeping its passive character), it is not clear that this theory meets my requirement of a *passive* mechanism to explain passive actions.

To sum up, in contrast to Bargh, this model posits a sub-personal mechanism which explains agential movements. However, in the end, the model: (1) does not provide a passive mechanism; (2) offers a dubious explanation of the agential character of movement; and (3) without more necessary development, is insufficient to explain in a complete way the performance of passive actions.

For these reasons, I have found no way to explain passivity through the sub-personal which results in bodily movement. In the next section, I present another way of explaining the movements of an action. As with Bargh's view, mental states will play no explanatory role in the unfolding of the movements. In contrast to Bargh's, the explanation of the movements will not be sub-personal. The explanation of the movements is based on the engagement of an *embodied self*. This engagement of the self results in the movements of one's body. I shall discuss the versions of this view proposed by Jennifer Hornsby (2004, 2012) and Helen Steward (2000, 2009, 2012, 2013).

#### **An agential explanation of bodily movement:**

##### **Jennifer Hornsby and Helen Steward**

Jennifer Hornsby (2004, 2012) and Helen Steward (2000, 2009, 2012, 2013) propose a two-dimensional characterization of action. There is, first, the engagement of the self in the performance of action, and second, the engagement of the self in bodily movement. Hornsby calls this latter engagement an 'activity', and Steward calls it a 'process' (though they also use other names). They characterize the distinction between actions and activities or processes as analogous to the distinction between particulars and stuff, or between things and masses.



## Jennifer Hornsby: the activity of acting

In contrast to friends of the causal paradigm, Hornsby holds that bodily movements are not themselves actions, but the result of an action. While discussing a version of the problem of the disappearing agent, she argues against identifying the subject's moving their leg (an action) with the leg's movement (a bodily movement). The main problem with identifying actions and bodily movement is that this identification cannot explain the fact that, when acting, *the subject causes* what the action causes:

Given that agents cause what their actions cause, an agent's place in any causal story must be the place of her actions. But then agents and the events that really are actions are obliterated with a single stroke when bodily movements are identified with actions. (Hornsby 2004: 20-21)

This *caused character of bodily movements*, which seems intuitive, marks an important difference between her view and the causal paradigm: bodily movements are not what the subject performs, but an effect of that performance. However, Hornsby adds, if bodily movements are only an effect of the agent acting, the visible perceivability of an action to an external observer is threatened. She claims that bodily movements are the only visible aspect of action, and they should explain why an observer sees *the subject acting*. In this respect, Hornsby follows Helen Steward (2000), who revives an idea from the gestalt tradition originally proposed by Albert Michotte (1941). Michotte claimed that we can *perceive actions* performed by animate beings (agents). In Steward's words:

Surely it is a hard thing to deny that (at least sometimes) the actions of others are open to our gaze, that we can simply *see* them. It seems strangely reminiscent of a kind of behaviourist epistemology that generally finds little favour these days to suggest that, strictly speaking, only the effected movements, not our active movings of our bodies are on public view [...]. (Steward 2000:107)

The intuition behind this view is captured by one type of perceptual report: the naked infinitive report (Mulligan 1999, Higginbotham 1983). Sentence (1) is a naked infinitive perceptual report:

(1) Sam saw Mary cross the road.

This differs in many respects from sentence (2):

(2) Sam saw that Mary crossed the road.

The differences between (1) and (2) can be theorized in different ways. One standard view is that (2) reports an *epistemic perception*, that is, a perception with some cogitation, while the naked infinitive report reports a *non-epistemic perception* by asserting that Sam saw, without cogitation, a process which is the action of crossing the road, and which is related to Mary by her being its agent.

Hornsby's goal is to characterize bodily movements so as to explain together both their *caused character* and the fact that *they render action visible*. To explain these features, she proposes a relation of *causal activity* between the subject's action and movements—a relation different from the standard relation of causation:

In order to recognize causality as present on an occasion of someone's raising her arm, one needs to think of a person's raising her arm as a type of causal activity in which she engages. A person is engaged in such activity from the moment at which her arm starts to rise; and her arm is going up so long as she is engaged in it. [...] The agent herself plays a causal role, and does so by virtue of causality's being internal to activity in which she engages. (Hornsby 2012: 234)

Hornsby characterizes causal activity as the *agent's engagement in a type of activity*. This engagement involves a special kind of causality which results in bodily movements. In an unusual portrait of action which appeals to the distinction between particulars and stuff, she claims that this engagement of agents is what constitutes their actions:

[...] It is impossible to think that a stroll of Sebastian's [an action] is going on right now without thinking that Sebastian is now strolling [an engagement in a type of activity]. The "going on" of any action, past or present, has to be understood in terms of an agent's engaging in activity. Just as there are neither bottles full of beer or puddles of beer unless there is stuff of a certain type (sc. beer), so there are no strolls on someone's part, unless there is activity of a certain type (sc. strolling) on their part. And just as beer pervades any volume of space occupied by beer, so strolling

pervades any interval of time occupied by strolling. Things in space are comprised of stuff. And the events that Davidson was concerned with under the head of actions are comprised of activity. (Hornsby 2012: 237-238)

Hornsby also introduces the concept of *stretches of activity*—the temporal individuation of engagement in an activity. Stretches of activity are not actions, since they do not involve accomplishments. Here Hornsby endorses a view that she attributes to many philosophers of action and according to which actions involve accomplishments. She characterizes stretches of activity in opposition to this trait of actions. This characterization of action has its origin in the fourfold distinction of verb-types proposed by Zenon Vendler (1957) and subsequently developed by Alexander Mourelatos (1978). According to Vendler's distinction, there are four types of verbs: *accomplishments*, *achievements*, *activities* and *states*. Following this classification, Mourelatos presents a twofold distinction of verbs which refer to action: achievements and activities (he classifies accomplishments and achievements together, and 'states' is not a verb type of the domain of action). By distinguishing actions and stretches of activity by the presence or the lack of accomplishments, Hornsby follows Mourelatos' distinction:

Accomplishments can be contrasted with stretches of activity, in that case. What it takes for there to be an accomplishment of any sort is determined by the sort of endpoint required for an accomplishment of that sort, whereas for there to have been a stretch of activity of any kind, it is only required that there no longer be activity of that kind: a stretch of activity is over simply when it has stopped. (Hornsby 2012: 240)

To be an action, an accomplishment should happen; for there to be a stretch of activity, it is merely necessary for a subject to be engaged in the activity for some time.

In characterizing the role of agents by their engagement in activity, Hornsby seems to reject the classical agent-based explanation of action, and hence escapes the usual criticisms of it. Agent-causation is a kind of *substance-causation* whereby the agent as a substance (and not any of its properties) causes the action. One classic problem for substance-causation is that of explaining how a substance could cause something. A version of this problem is presented by C. D. Broad (1952). When something is

caused, it is caused to happen at a certain time. There must be something, then, related to the cause that *enters into the moment* and from which the effect arises. So the cause must be something to which the notion of date or time applies, and this notion applies only to events, and not to substances or agents. Thus a substance might be said to cause at a certain moment by virtue of possessing some properties at that time. This means, however, accepting that the cause is after all the fact that the thing has those properties. These problems carry over to the explanation of action in terms of *agent-causation*. To explain why and when the subject brings about different actions, it seems necessary to refer to one or some of the subject's properties. Otherwise we cannot explain why a subject engages in the activity of rearranging oneself and not of scratching one's head; or why the subject engages in an activity now rather than later. Nonetheless, what accounts for the action is not the agent, but rather the properties that explain these aspects of the subject's actions.

It is not clear whether in her proposal Hornsby endorses agent-causation. She does not explicitly do so and her mass-like characterization of the engagement of the self could perhaps avoid these problems.

### **Reflections on causal activity**

I take Hornsby's main claims to be the following:

- The agent causes what the action causes.
- Bodily movements are not only caused by the agent; they result from the agent's causal activity (characterized as the agent's engagement in a kind of activity).
- Actions are constituted by such engagement.
- The distinction between actions and activity is analogous to the distinction between particulars and stuff; and while actions involve accomplishments, neither stretches of activity nor activity is structured in these terms.

I will evaluate Hornsby's account in two stages. First, I discuss some underdeveloped aspects of her view which, if developed, would bring to light some possible problems, in particular a tension between her notion of *an agent's engagement in activity* and the conceptualization of *the performance of an action*. Second, I will compare my requirements to explain passive actions with her distinction between actions and causal activity.

One important reason for the underdevelopment of Hornsby's view is the fact that the distinction between particulars and stuff does not normally apply to entities such as actions, events, or processes. This distinction has been used and discussed throughout the history of philosophy, but it is unclear exactly what the distinction between particulars and stuff means when used in this framework.

What follows are more specific aspects of her theory which I think are underdeveloped.

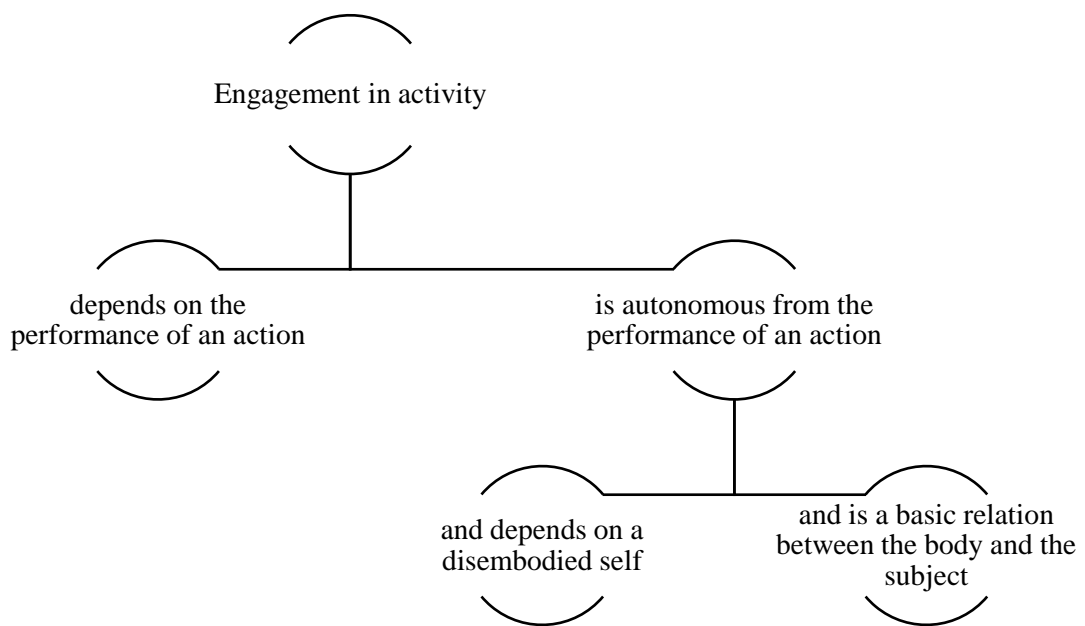
- (1) A first group of issues bears on *the relation* between performing an action and engaging in the corresponding activity. Hornsby seems to accept that performing an action is to be understood in terms of Davidson's paradigm. Consequently, actions are events which are sustained by the subject's psychological states. What then is the relation between the psychological states which sustain action and the agent's engagement in an activity? Hornsby claims that the subject's *basic role* is their engagement in activity:

Actions are not all that agents participate in: also they engage in activity.  
(Hornsby 2012: 235)

I argue here that human action is properly understood only by reference to a category of process or activity, where this is not a category of particulars.  
(Hornsby 2012: 233)

How can we introduce, into this picture, the performance of an action sustained by mental states? Does *the agent* who engages in causal activity play a different role in the performance of the action? None of the possible relations between engagement in the activity and in the action constitutes a clear and consistent development of Hornsby's view. Of all the possible

relations between these two engagements, I think that the following are the most plausible: the engagement in activity is caused by the performance of an action; both the performance of an action and the engagement in activity are independent processes. In this latter case, either there is a disembodied self who engages in activity and also performs the action, or activity is not exactly an engagement of the agent (who only plays a role in the performance of the action).



- The first possible relation proposes that *engagement in activity results from engagement in action*. This option, however, does not explain the particularities of the engagement in activity (which seems reduced to the performance of the action), and seems to enter into tension with Hornsby's claim that engagement in activity constitute the essence of human action (how should action be understood by reference to activity if the activity results from engagement in action?). This development of Hornsby's view would not characterize bodily movement as independent of the will and thus it seems unable to explain the passive traits of passive

actions. It leaves no option available which might explain passive actions by a passive mechanism which results in bodily movement.

- According to the first interpretation of the second possible relation, engagement in activity results from *a disembodied agent engaging both in action and in activity*. Among others, this option raises the question of the nature of the dual engagement (which results in *one* performance). This option should propose an origin of the engagement in the activity that is autonomous with respect to performance of the action. In this way of interpreting Hornsby, questions about passive actions become questions about the disembodied agent who, when acting, engages in the action and in the activity. This way of explaining action, as far as it is grounded in the engagement of a disembodied agent, might not provide elements to explain passive performance.
- Another option for interpreting the second possible relation is to claim that *engagement in activity is not engagement of the agent (who performs the action) but a basic relation between the body and the subject* which cannot be analysed in other terms. Bodily movements would be the agential movements of an action in a basic way (without it being the engagement of an *agent*). This would solve the problem of dual engagement but it would require the development of the relation between this basic relation and the action that is ultimately performed. Another problem is how to explain the fact that different actions seem to require different kinds of activity: engaging in the activity of swimming differs from engaging in the activity of running.

None of these options allows for a development of the view that the relation between the performance of the action and engagement in the activity (a necessary relation in Hornsby's view) in an easy and evident way.

- (2) A second underdeveloped aspect concerns the characterization of bodily movements which are thought to result from causal activity. Can (mass-like) activity explain all the dimensions of bodily movement, for instance, the determination of the kind of movements to be performed or the subject's

control of them? Is it supposed to? These questions relate to the issues raised above. They indicate a tension between the agent engaged in activity and some of the roles required of that agent. How are these roles to be explained?

The second part of my evaluation of Hornsby's view involves comparing my requirements for explaining passive actions with her distinction between actions and causal activity. Hornsby's distinction between action and activity does not match the distinction between action and bodily movement which I proposed in order to explain passive actions. I see two important differences between the two distinctions:

- Although Hornsby proposes a two-dimensional structure for action, it is not clear what, in her view, the passive mechanism with a passive phenomenological output could be. When she introduces agential activity as an engagement of an agent, she introduces an *active* characterization of bodily movement (which phenomenologically presents the action), while I am seeking a characterization of bodily movement with a phenomenological passive output. It is true that Hornsby presents movements as something caused, but according to her view, they result from a special relation with causality, and ultimately they are nothing but *an agent's* engagement. Thus, although her view is not fully developed, the most immediate way of developing it makes the movements of an action completely agential, and does not provide resources necessary to explain the existence of passive actions.<sup>31</sup>
- Hornsby individuates activity in terms of stretches of activity, not in terms of accomplishments. The individuation of the different steps needed to cross the street, if they are presented as activity, does not result in actions. My view, in contrast, requires the possibility of individuating movements in terms of something which could become an accomplishment. There is an intimate relation between stretches of movements and passive actions (the steps taken to cross a street or the returning of a fast tennis ball), which I aim to preserve, and which

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<sup>31</sup> In fact, there is an aspect of her characterization of causal activity which introduces a passive character. When talking about engagement in a kind of activity, Hornsby introduces the pattern of activity independently of the engagement of the agent. This allows her to characterize the agent as passively responding to an activity pattern (for instance, following the pattern of raising one's arm or of strolling). However, again, this aspect is not explained.



does not seem to be explained in Hornsby's view. Hornsby's view, and in particular her understanding of activity in terms of masses, does not allow movements to be individuated in terms of motor goals. Consequently, her notion of activity does not meet my requirements for characterizing bodily movement.<sup>32</sup>

To sum up, Hornsby's proposal that the agent's engagement constitutes the action does not allow me to develop the characterization of bodily movement which my account requires. First, her view involves two tensions which reveal a gap in her account of the causal activity and of the agent who sustains it. Second, although her view succeeds in explaining the *agential* character of movements, it seems unable to explain passive actions. She does not propose a passive mechanism, and she cannot explain the apparent continuity between the teleological format of bodily movement and the teleological format of passive actions.

### **Helen Steward: the process of acting**

Helen Steward (2000, 2009, 2012, 2013) proposes a view of action which displays some similarities, but also relevant differences, with Hornsby's view. (In fact, their papers form a dialogue with one another.)

In her 2000 paper, Steward asks Hornsby (and any view of action) to explain the fact that an external observer often sees a subject acting (and not only bodily movements). She proposes that what guarantees the visible perceivability of action is the fact that the movements of an action are the result of 'causings' and not only of causes.

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<sup>32</sup> It seems that we are talking of two different classifications, which could be integrated into a tripartite view of action to include causal activity, goal-directed movements and action.

What is a causing? Presumably, it is a kind of event which occurs when something or other brings about an effect. [...] When the sun causes a chocolate bar to melt, for example, there is a causing by the sun of a melting [...]. (Steward 2000: 117-118)

Causing are not reducible either to the causes of an action or to internal events:

Now, where a complicated entity, like a washing machine, say, brings about some effect or other, the [spinning] [...] of some clothes, for example, there will often be a causal story to be told about how events internal to the complicated entity brought about that effect. These internal events—the clickings of various switches, the completions of various circuits, etc.—can be regarded as some of the causes of that effect. But there will be no reason, or so I want to maintain, to regard any of them, or any sum of them, as identical with *the causing of that effect by the washing machine*, i.e. with the spinning [...] of the clothes by the washing machine. The spinning [...] is by the whole washing machine, and not by any of its parts. (Steward 2000: 118)

The fact that bodily movements are the effect of causings (by a whole subject), and not of causes, guarantees the visible perceivability of action. This picture thus results in an agential characterization of bodily movement;<sup>33</sup> and since such causings are not explicable in terms of other elements, bodily movement is agential *in a basic way*.

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33 It is an open question whether, by introducing causings, Steward endorses agent-causation. She mentions precedents of her use of causings—Chisholm (1966, 1976), Taylor (1964), and Thomson (1977)—which connected the idea of causings with a special causality involving irreducible causal links between agents and events. She claims that she does not know whether she is endorsing this kind of causation, and she suggests some ways in which her view could be compatible with the standard notion of causality—resulting, however, in a special notion of causality.

In her later papers, she is more sceptical about the possibility of endorsing the classical notion of causality (Steward 2009: 305; 2013), and she observes that biology also seems to give up the standard framework of causation:

That a whole system may affect its own parts is an idea that is coming slowly to gain acceptance in the biological sciences—and so the idea that an exercise of power on the part of an agent must be identical with some small neural occurrence is by no means mandatory. Biology may find that it, too, requires, in the end, a notion of agency, which it will understand as the highest level manifestation of a general biological phenomenon of downward causation which it is already beginning to think it needs. I do not doubt that scientific light will come to be shed on the question how it is possible for an agent to exercise a power to affect its own body by the developing biological sciences. (Steward 2009: 310)

In subsequent papers, Steward develops this view. I think that like Hornsby, she ultimately fluctuates between a view which invokes an *embodied agent* (which she hopes guarantees the visibility of the action, and also to avoid the introduction of mental entities) and a view which appeals to a *disembodied agent* (which explains some important and essential roles of the agent, but requires such mental entities). Neither of these views taken in isolation manages to provide a complete account of the agent. I now evaluate her presentation of these two dimensions of action.

In a 2009 paper, Steward invokes an *embodied agent* by introducing bodily powers, in what can be considered a development of her views on bodily movement. Steward proposes to use bodily powers to explain a kind of passive actions: O'Shaughnessy's sub-intentional actions (some examples: slightly rearranging oneself, absent-mindedly scratching one's head, fiddling with one's jewellery, leaning a bit more this way, turning one's head slightly, or jiggling one's foot). Steward considers these actions to be counterexamples to any explanation of actions which names reasons or other mental states as causes of action. She explains such actions as being brought about by the *exercise of embodied powers* by a subject—in her terminology, 'the exercise of a power by an animal'.

The animal body [...], on this conception, is then not merely the instructed instrument of that animal's will. On the contrary, an important sub-set of the complex set of embodied systems which enliven it, become constitutive themselves of the phenomenon of willing. (Steward 2009: 308)

Such exercises of a power fulfil the requirements for being the causings of the action: they are exercised by a whole agent (an animal), they are irreducible to the causes of an action, and they guarantee the visible perceivability of the action. Moreover, since they can be exercised without the presence of intentions, motives or purposes, they can explain O'Shaughnessy's sub-intentional actions.

According to this proposal, bodily powers are what sustain action.

What I am suggesting is merely that it may be the exercise of those lower-level bodily powers rather than the organizing and harnessing for ends that is really the mark of agency. What is truly essential to the power of acting is something which, as it were, lies *beneath* the capacity of an animal intentionally to bring about certain movements

of its body, rather than being simply constituted by that capacity. (Steward 2009: 302)

According to Steward, it is not the performance of an action which results in bodily movements, nor does a disembodied subject engage in both bodily movement and action. Rather, Steward endorses the third way of developing Hornsby's view, according to which there is a basic relation between the body and the subject which results in basic agential movements and which constitutes the ultimate core of action. However, as I pointed out when I presented this option, it seems to attribute to *this basic relation* all the roles of *an agent* who performs the action, a thesis which seems difficult to defend. Similarly, it does not provide an individual explanation of each bodily power that is exercised: why does the subject exercise the bodily power of walking instead of the bodily power of running?

Steward's description of action in terms of a *disembodied agent* appears in the context of her discussion of the nature of actions. She claims that actions *are not events* (as normally conceived), but something which can be compared to *substances*—what she calls '*individual process*'. Here, she explicitly argues against Donald Davidson's (1980) linguistic argument. According to that linguistic argument, sentences dominated by action predicates involve a quantification over events. Davidson's argument is important for the causal paradigm, since events are originated by causes. Steward argues that concluding that action predicates refer to events is not the correct conclusion of Davidson's argument. She presents some sentences about actions that change (for instance, 'Smith waved more and more frenetically'), which more plausibly refer to *individual processes*:

[... I]f these sentences of the form 'S  $\phi$ -ed more and more/ less and less F-ly' are to be represented as quantifications over actions, the action in each case has to be represented as changing over time in respect of the degree to which it is F. But there are very good reasons which have been often rehearsed and carefully defended, for thinking that events do not change—or at any rate, not in respect of their intrinsic properties. (Steward 2012: 377)

[... A]s well as events, we must recognize a second category of occurrent entity that I call *processes*. And processes, unlike events, I shall suggest, *can change*; and they do not have all their temporal parts essentially. They are therefore, I claim, much

better candidates than events to be the entities that are quantified over by action sentences [...]—in short, if we are at all Davidsonian in inclination, they are much better candidates than events to be actions. (Steward 2012: 380)<sup>34</sup>

Individual processes share with substances an important property: *modal robustness in virtue of form*, which gives them a substantial character:

Substances -like horses and trees, for instance- can change, they can gain and lose parts without losing their identities, and they could have been other than they are in a great many different ways. They are what one might call *robust* -both mereologically and modally. (Steward 2012: 384)

Events, it seems to me, when conceived as it is best to conceive of them, do not have any modal robustness in virtue of form. (Steward 2013: 808).

Importantly, Steward argues that, because of their substantial character, actions *do not have events as causes*, but rather *other substances*—which in the case of the action is an agent. For her, holding that actions are individual processes allows us to introduce the agent as what brings about the action:

But what is the cause of a token process [substance], conceived of an entity with a robust form a normal course of development, something which can obtain extra temporal parts without detriment to its continued identity? Not only what triggers it, but also what sustains it, what keeps it on course, what prevents it from ceasing or disintegrating. In this observation lurks the promise of an account of activity from which the agent does not suffer the disappearance so often complained of in event-based views, precisely because she is needed in order to ensure the continuation in the right direction of the process which constitutes her activity. (Steward 2013: 810)

However, claiming that actions, in being a substance, have another substance as a cause enters into tension with her subsequent elaboration of the notion of an individual process. Within the framework of the distinction between ‘occurrents’ and

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<sup>34</sup> Her argument does not undermine the view that there is an ontological commitment to events in some action sentences. Using an idea due to Maria Alvarez (1999), she claims that:

(...) if [ontological commitment] to events at all [is required], perhaps [it is] only to the events which are the *results* of actions, rather than to actions themselves—to arm-risings, but not to arm-raising, for example. (Steward 2012: 375)

'continuants' (Simons 1987), actions are usually considered to be occurrents: entities which, unless they are instantaneous events, have temporal parts. In Steward's claim that actions are individual processes which are brought about by a substance, she seems to assert that individual processes are continuants. The reason for this is that she invokes a principle according to which a substance, if it is caused, is caused by another substance. However, in 2013 and 2015, Steward argues that individual processes are a subclass of occurrents, in particular because they have temporal parts. In this case, she is actually using a rather different causal principle than the one she wants to invoke: that a category of occurrents—individual processes—is brought about by a substance—the agent. But this principle is subject to a standard objection directed against agent-causation: how are we to explain the fact that a substance (the agent) can bring about an action (which, even if it is a process, is an occurrent)?

Even leaving aside this problem, invoking the agent as the substance which brings about the action is a problematic move both in the context of her view and in the context of my own strategy. To introduce a substance that triggers the action, that sustains it, that keeps it on course, and that prevents it from ceasing or disintegrating, looks like the introduction of a disembodied agent which is in tension with her view of causings and processes—according to which, bodily movement is not reducible to other elements. Also, if the action is explained by positing the exercise of a substance, then questions about action (and about passive actions) would ultimately become questions about this substance. My strategy of explaining passive actions through a passive explanation of bodily movement would thus be blocked. Therefore, although her view of bodily movement promised to be interesting in order to explain passive actions, the notion of agent that she uses when developing it is not satisfactory: either it is an embodied agent who does not essentially play the roles alluded to above (triggering, sustaining, keeping on course and preventing from ceasing or disintegrating), or it is not an embodied agent, which blocks my strategy.

## **Conclusions concerning Hornsby's and Steward's engagement of the self in action**

In this section, I have explored yet another way of characterizing bodily movement. In contrast to Bargh, who bases his characterization of bodily movement on sub-personal processes, Hornsby and Steward base their characterizations on the agent's involvement in bodily movement. The two authors offer a way of characterizing bodily movements as independent of the will which could perhaps explain passive actions. Steward tries to explain O'Shaughnessy's sub-personal actions through this model.

However, their proposals are underdeveloped, and their claim that the subject's engagement resulting in movements is what constitutes the action does not help, since it is not clear what constitution means when applied to the human and animal world. The presence of another dimension of action, the performance of the action, does not help to complete the picture. If the engagement of the subject which results in movements depends on the action or on the subject, questions about passive actions become questions about the performance of the action or about the engagement of the subject, and what promises to explain passivity disappears. Another option is to claim that this engagement is a basic dimension according to which bodily movements to perform an action would be basically agential. I find this option very interesting, and it seems to be the option that Steward, and sometimes Hornsby, prefers in her presentation of bodily movement. However, it requires further development, as well as answers to questions about the explanation of different functions usually attributed to the agent: should all the dimensions of *the agent who performs the action* be explained through this basic dimension? The resulting *self of the activity* does not seem to be the agent of action. What would the relation of this activity with the performance of an action by an agent be?

The tensions that appear when these views are developed are, I take it, versions of the general problem of explaining how bodily movements can be agential movements if they are independent of the will (condition 1, presented at the beginning of this chapter). So, like Bargh's, this view does not offer a satisfactory characterization of

bodily movement which would allow us to explain together its passive character and active features.

### **Conclusions of the chapter**

In the conclusion to Chapter 3, I claimed that the idea that the movements of an action constitute a passive dimension, distinct from the performance of an action, could explain passive actions. In this chapter, I have contextualized this explanatory requirement, and I have explored different theories which could satisfy it.

These requirements cannot be fulfilled by theories which claim that performing an action is nothing more than moving one's body, i.e., theories within the causal paradigm of action. According to that view, bodily movements cannot have passive traits since they fully assume the active character of the action. In this chapter, I have presented two alternatives to that paradigm which propose two dimensions of action, one being the movements of the action. The first alternative, offered by John A. Bargh, holds that bodily movements do not respond to mental states of the subject, and that even if subjects have such mental states, bodily movements respond to other, sub-personal, mechanisms. This view posits a sub-personal unfolding of bodily movements, since it presupposes that this is the only alternative to explaining bodily movements as caused by intentions. However, this presupposition is unjustified, and the view seems unable to explain some phenomena of action. Evaluating the view is of interest, despite its oversimplification, since some authors partially endorse it—for instance, Clark (although, perhaps to avoid endorsing an oversimplified view of action, he eventually endorses a view according to which sub-personal mechanisms are ultimately determined by the conscious subject's will).

Other theories of bodily movement that meet this requirement are the theories of Hornsby and Steward, according to which movements are due to an agent who engages in an activity which results in bodily movement. This view builds on the objection that the causal paradigm leaves out the agent. In response, Hornsby and Steward propose a particular–stuff view, whereby action is composed of the engagement of an embodied agent in a kind of activity which results in the



movements of their action. Steward explicitly claims that this view explains passive actions. However, this view presents some tensions between the two elements of the dual engagement of the agent. Independently of these tensions, I raised three problems which this view encounters in explaining passive actions. First, it does not provide a passive characterization of bodily movement. Second, it attributes a stuff-like or mass-like character to movements which does not seem to characterize them correctly. Third, and finally, identifying the agent as constituting an action prevents that agent from playing some of the other roles usually attributed to them.

The recurring problem for these alternatives is how to characterize bodily movement so as to explain the passive character of passive actions, without denying that these movements are also related to the agent. In this chapter I have discussed these two requirements. My final conclusions are:

- Passivity cannot be explained through a sub-personal characterization of bodily movement. Movements display relations with the subject which are incompatible with a sub-personal characterization of bodily movement.
- Hornsby and Steward offer an interesting characterization of bodily movement, according to which movements are caused by the agent. However, this engagement of the agent requires a notion of agent that is different from the standard one (the agent is who performs actions), which is not developed. So, the origin of this activity and the explanation of the roles usually attributed to agents is left unexplained.

In the next chapter, I explore how to characterize bodily movement in a suitable way to explain passive actions.

## Appendix to Chapter 4:

### Could the debate on knowledge-how help here?

At this point, one might ask why I do not use theories of knowledge-how in order to characterize bodily movement in the required manner. The debate on knowledge-how concerns how to explain the correct performance of an action through the subject's knowledge of how to move their body. Positions designed to explain how this is possible thus seem appropriate starting points for a view of the performance of the movements of an action which could explain passive actions.

This line of research was, indeed, my first way of trying to develop a view of bodily movement, due in particular to the fact that, for some authors, knowledge-how is what explains the relation between non-basic and basic actions (Hornsby 1980; Danto 1979). However, it turns out that the debate on knowledge-how does not provide the resources needed to develop a view of bodily movement. One important reason for this is that the focus of current discussions on this topic is not primarily the performance of movements, but rather the status of knowledge-how in an epistemological framework (especially its relation with knowledge-that). Thus, the debate has lost its initial connection with philosophy of action, which it had when Gilbert Ryle (2002 [1949]) introduced the notion of 'knowing-how' in order to answer the question 'what makes an *activity* intelligent?'<sup>35</sup> Another reason is that the philosophy of knowledge-how needs a theory of the movements of an action, and not the other way round. I will, however, discuss the views of two authors (each defending one of the two main positions in the debate: intellectualism and anti-intellectualism) who use the notion of knowledge-how to explain the performance of movements. This will be useful to confirm some of the points already made, in

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<sup>35</sup> The main aim of the cited chapter [Ryle, *The Concept of Mind*, Chapter II: Knowing how and knowing that] is to show that there are many activities which directly display qualities of mind, yet are neither themselves intellectual operations nor effects of intellectual operations (Ryle 2002 [1949]: 26).

particular, the fact that many authors seem to assume that the only alternative to a subject having an intention is to posit sub-personal processes.

The most important recent intellectualist position is the one defended by Jason Stanley and Timothy Williamson (2001). Stanley (2011a, 2011b), and later Stanley and Krakauer (2013), develop this position to explain the performance of movements.

For the intellectualist, subjects perform correct movements in virtue of the propositions they know. Accordingly, to say of a person that they know how to ride a bike implies that they know the answer to the question: ‘What is the way for you to ride a bike?’ However, a closer look at this aspect of their view reveals that intellectualists are in fact claiming something weaker: *those parts of the unfolding of movements which are intelligent*, are intelligent in virtue of the propositions that the agent knows.<sup>36</sup> In their 2013 paper, Stanley and Krakauer claim that propositional knowledge is insufficient to explain bodily movement, and that an explanation of the performance of movements should also refer to motor acuity—a term due to Shmuelof et al. (2012):

Shmuelof et al. have recently coined the term “motor acuity” to describe the practice related reductions in movements variability and increases in movement smoothness [...]. Such adaptations are not the acquisition of something that is characteristically manifest in intentional action [...]. (Stanley and Krakauer 2013: 15)<sup>37</sup>

Motor acuity is a process that undergoes motor improvements. It results from experience, but when it takes place, it is neither the result of attentive practice nor under voluntary control.

Motor acuity may indeed not require propositional knowledge and has direct parallels with perceptual acuity. (Stanley and Krakauer 2013: 1)

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<sup>36</sup> There are some exceptions. For instance, Carlotta Pavese (2015) argues that *all* skill is propositional knowledge.

<sup>37</sup> Intellectualism is not threatened by this move. Stanley and Krakauer claim that intellectualists need not commit themselves to the view that every aspect of a movement is reducible to the knowledge of a proposition; only those parts which are intelligent should be explained in this way.

A necessary condition for the performance of a skill by motor acuity is that the subject propositionally knows what to do to initiate an action:

[... K]nowing what to do to initiate an action of  $\phi$ -ing is a necessary condition for having skill at  $\phi$ -ing [...]. (Stanley and Krakauer 2013: 5)

For  $x$  to have skill at archery,  $x$  must know what  $x$  could do to initiate an act of shooting a bow, e.g.,  $x$  must know some of the things he could do to initiate an act of archery, such as (a requirement  $x$  may satisfy by knowing that he could start shooting arrows by fitting the arrow into the bow). (Stanley and Krakauer 2013: 5)

The performance of movements is thus presented as resulting from hybrid states which combine guidance by propositional knowledge with something that seems similar to mechanistic, sub-personal motor abilities.

Though of course some improvements in skill are due to gaining new belief states or knowledge states, we disagree that this is a correct model for *all* improvement. Some improvements in skill are *just* due to improvements in motor acuity. (Stanley and Krakauer 2013: 17)<sup>38</sup>

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38 Intellectualists already introduced something similar to motor acuity in their first papers, when introducing practical modes of presentation, which were introduced to explain why (1) and (2), below, are not true in the same situations, even though the intellectualist might seem committed to saying they are:

- 1) Hannah knows that that way to ride a bicycle is a way for her to ride a bicycle.
- 2) Hannah knows how to ride a bicycle.

Let us imagine that Hannah receives from a second person the information that the way a third person rides a bicycle is a way for her to ride a bicycle, thus making (1) true. Even when she has this information, it is possible that she does not know how to ride a bicycle. To solve this problem, Stanley and Williamson (2001) make a problematic move. They introduce two different modes of presentation for propositions depending on whether the propositions are destined to the performance of actions or they are not. The case in which (1) is true and (2) false is explained by the fact that a *demonstrative mode of presentation* occurs in the first sentence, and a *practical one* in the second sentence.

It is simply a feature of certain kinds of propositional knowledge that possession of it is related in complex ways to dispositional states. (Stanley and Williamson 2001: 430)

This practical way of relating propositional knowledge to dispositional states could be seen as an antecedent of the notion of motor acuity.

In a recent article (2014), Ellen Fridland argues that motor acuity combined with propositional knowledge cannot explain the movements of an action. She claims that the intellectualist's view of bodily movement is wrong, since it cannot explain the various dimensions of the control of such movements:

To be clear, my argument is [...] simply that the control exhibited in the elegant, fluid, practiced execution of skilled actions cannot be identified with the subpersonal, low-level, mechanistic processes of motor acuity [and which can neither be identified with propositional knowledge<sup>39</sup>]. (Fridland 2014: 2379)

One of the cases she mentions is that of movements resulting from learning through attentive practice:

That is, even if there are low-level motor mechanisms that develop during practice in the absence of attention [which could be due to motor acuity], which I'm sure there are, these aspects of skill are not the same as those other aspects of skill that are the objects of explicit attention during training, refinement, and practice. (Fridland 2014: 2741)

Fridland points out that intellectualism misrepresents the performance of movements by reducing it to a low-level, sub-personal, brute mechanism.

This line of criticism is similar to the objections I raised against Bargh's thesis. It may be held that, just as Bargh worked with an oversimplified view of the relation between the subject and the unfolding of their movements, Stanley and Krakauer work with an oversimplified view of what it is to perform an *intelligent* movement. It seems plausible to attribute to Stanley and Krakauer the claim that propositional knowledge is related to action through *intentions*. This point appears to be confirmed by the emphasis these authors place on the role propositional knowledge plays in the initiation of action. Bargh assumes that a conscious subject can only be related to

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<sup>39</sup> Fridland attributes to Stanley and Krakauer the claim that controlled movements of this kind are not due to propositional knowledge:

Both because they ignore an account of how control could be guided by knowledge of propositions, and because they focus on the role of motor acuity in accounting for the fine-grained movements of motor skill, it seems reasonable to attribute to Stanley and Krakauer the view that control is simply a matter of motor acuity. (Fridland 2014: 2741)

their movements by consciously and conceptually intending to perform an action. The views thus agree that a subject performs an action if and only if they have a conceptual conscious reportable intention with the content: *I intend to F by moving my body in this way*. Consequently, both authors share the dichotomy: to the extent to which there is no possibility of explaining a performance by appealing to an intention of this kind, a sub-personal process must be introduced.

I now summarize the anti-intellectualist explanation of how a subject performs movements (Ryle 2002 [1949]; Noë 2005; Dreyfus 2002). The anti-intellectualists' main goal is to argue that there is a species of knowledge different from propositional knowledge. Gilbert Ryle, considered the father of anti-intellectualism, claimed that *the intelligence of skill* is not reducible to knowledge of propositions. Anti-intellectualist arguments, however, focus more on showing that propositional knowledge is insufficient to explain the knowledge involved in acting, or on discussing whether it is better to describe knowledge-how in terms of dispositions or abilities, than on developing a non-propositional way of explaining the *intelligence of skill*.

One exception to this tendency is Hubert Dreyfus (1993, 1995, 1999, 2002, 2006, 2007), who develops an anti-intellectualist explanation of the movements of an action, which I discussed above when explaining absorbed coping. Since I have already presented Dreyfus' view in detail, I mention only those aspects of it that are specifically relevant here. Dreyfus proposes an explanation of action in Merleau-Pontian terms, according to which bodily movements result from an intimate (non-representational) relation with the world. He develops this picture by characterizing bodily movements as the result of Hebbian learning, according to which movements respond to the world by means of learned-through-practice connections between neurons:<sup>40</sup>

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<sup>40</sup> Hebbian learning is a notion introduced by Donald Hebb (1949). It refers to the adaptation of neurons in the brain during the learning process and describes a basic mechanism for synaptic plasticity.

[T]he strength of the connections between the neurons changes on the basis of experience. This kind of adjustment of connections is all there is to learning in a simulated neural network. (Dreyfus 2002: 381)

This process, resulting in the movements of a skill, is what constitutes knowing-how.

Fridland observes that, like the intellectualist, Dreyfus ultimately explains bodily movements mechanistically, which is rather surprising given his stated aim to develop the accounts of Heidegger and Merleau-Ponty.

Fridland claims that Dreyfus, like the intellectualists, overlooks some essential aspects of the performance of movements. The reasons why Dreyfus succumbs to a mechanistic picture of bodily movement are less obvious than in the intellectualist case. The intellectualists are bound to the notion of knowledge-that, which prevents them from appealing to a different kind of knowledge. In contrast, the anti-intellectualist is free to introduce a different kind of knowledge to explain bodily movements (it is true, admittedly, that Dreyfus is tied to his Merleau-Pontian anti-representationalist framework). Somewhat unexpectedly, no other complete and clear anti-intellectualist view has been proposed by anyone else (partial views have been sketched; for instance, Fridland 2014, and Jung and Newen 2010) and Dreyfus finally adds to the view a mechanistic explanation.

This discussion confirms my dissatisfaction with explanations of bodily movement in terms of mechanistic processes—a point I made when discussing Bargh's unconscious unfolding of bodily movement. Although the debate on knowledge-how promised to provide useful arguments and interesting views characterizing the performance of movements, it turns out not to be helpful.

I think that, in fact, both the intellectualist and the anti-intellectualist require an account of the performance of the movements of an action in order to develop their proposals, and not the other way round, as I have attempted to show in this Appendix. Until now, most research on action has focused on the performance of actions and the unfolding of the movements involved has not been theorized in detail, which makes research on action useless for the debate on knowledge-how. Recently, however, in order to explain some difficult cases, it has been necessary to locate the

explanation of action in the explanation of the bodily movements involved. It seems to me that these recent discussions might help to advance the debate about the nature and functions of knowledge-how.





**The tendency of a body to move**

My aim in this chapter is to introduce a passive explanation of bodily movements that constitute action in order, finally, to provide an explanation of passive actions. In Chapter 3, I also concluded that, in order to explain passive actions: (a) the passive mechanism should result in movements without the context of a performance mediated by the subject's will; and (b) that this passive mechanism should result in a dynamism between passive actions and active actions. In Chapter 4, I argued that the existing characterizations of bodily movements were unsatisfactory. I presented two views: the sub-personal explanation, propounded by John A. Bargh, and the agential view of Jennifer Hornsby and Helen Steward. The main problem with those theories is in explaining both the fact that movements are *the movements of an action* and the fact that they are *the result of a passive mechanism*.

In this chapter, my positive proposal is that the movements of an action are the manifestation of a *tendency of a body to move intentionally*, which is a *basic* tendency. The manifestation of this tendency is the bodily movement of an action. The movements which result from the tendency of a body to move are active (they are the movements of an action) in a basic way. Since this explanation is not based on any appeal to the will, the view it supports is not committed to there being any active phenomenology in the case of passive actions and it can thus provide an explanation of passive actions: movements are not the result of the will of the subject or of something agential, but of a bodily tendency.

The category of tendency has so far played no role in any of the views discussed. Action so far has always been presented as a reaction to something which triggers it, normally an intention (the Merleau-Pontian tradition is an exception and claims that what triggers action is a solicitation of the environment). The body is thought to be

an inert instrument that waits for something which triggers action. My view differs from these views in that it does not conceptualize action as a reaction to something which triggers it, but as the result of a tendency of the body to move in order to perform actions.

Before going into the details, let me illustrate this view by offering a brief explanation of an action; for instance, the action of eating a piece of chocolate. I propose the following explanation of this action. The subject sees a piece of chocolate and forms the desire to eat it. This desire is a bodily desire, which means that it involves a *pattern of movements*: the desire to eat chocolate is a desire to eat it *by grasping the piece of chocolate with my left arm to put it in my mouth*. What I propose is that the tendency of a body to move makes the pattern of movements involved in this bodily desire effective. By moving the body to eat chocolate, the subject ultimately performs the action of eating chocolate.

In order to develop this view in more detail, the following questions should be addressed:

- What is the relation between the movements resulting from the tendency of a body to move and the performance of an action?
- How is *the agent who performs an action* introduced in this picture?
- How can this picture result in both active and in passive actions?

The chapter has the following structure:

## 5.1 Characterization of the tendency of a body to move

### 5.1.1 Positive aspects of this view

### 5.1.2 A body image which describes the movements open to a subject, and its relation with the tendency of a body to move

## 5.2 An explanation of passive actions

### 5.2.1 The performance of a potential action

5.2.2 Situations in which a potential action is actualized as a passive action

5.3 The introduction of the tendency of a body to act: a Wittgensteinian view

5.4 The bodily agent of passive actions

**Characterization of the tendency of a body to move**

The tendency of a body to move presents the following traits:

- It is a tendency of some kinds of animal bodies.
- The manifestations of this tendency are the bodily movements of an action.
- This tendency is a basic tendency: it cannot be analysed in terms of other bodily features.
- It is not a tendency which is activated in the presence of stimuli, as for example the tendency to feel blame is. *Without any stimulus*, the body seeks to move. The body is dynamic and a situation in which it does not move is a situation of instability. Stability is only re-established when the body moves in the movements of an action.
- Although because of this tendency the body seeks to move, this tendency by itself does not determine the movement performed. The movements performed are determined by *something which, for the subject, involves a pattern of movements*. The tendency of a body to move is a tendency of a body to move by searching for something which involves patterns of

movements. Examples of entities which involve a pattern of movements are perceptions and mental states; for instance, the perception of a red traffic light involves the pattern of movements required to brake the car, and the desire to eat chocolate involves the pattern of movements required to eat chocolate. According to this picture, the *cause of the movements* is not only what involves a pattern of movements (the desire to eat chocolate or the perception of the red traffic light) but also the tendency of a body to move which selects one of these patterns and makes the movements involved in it effective. The simple tendency to move must be specified by particular patterns of movement in order to become effective.

- Once a pattern of movements is available, the tendency of a body to move *does not* bring about the movements involved in it *automatically*. There are different reasons why the tendency of a body to move might not make a pattern of movements effective.
- The search for something related to a pattern of movements is not *conscious*. Conscious subjects do not search and do not feel they are searching for something which might determine the movements to be performed and which might restore the stability that the body has when moving. What they might feel is a *feeling of instability* in the situation in which the body does not move.
- The *subject does not perform* these movements. Movements are a *performance of the subject* only in so far as they are the result of the bodily tendency to move. These movements *determine a potential action* which, when actualized, is *what the subject finally performs*. This results in a special picture of action in which the role of the agent is to *actualize* potential actions. Metaphorically speaking, the performance of the action relies on the body behaving in a certain way. However, something should be added to this theory to explain the roles often attributed to the subject (such as controlling the action); I expand on this point in the second section of the chapter.
- An important kind of action is the action which answers to *an intention*. According to some views, this is the paradigmatic case of action. I think, in contrast, that it is only a special kind of action which should not be generalized to explain action in general. Intentions could involve a pattern of movements that the tendency of a body to move might or might not actualize. This view differs from the usual characterization of actions resulting from intentions.

This kind of action is normally presented as directly and immediately resulting from the intention. According to my view, in contrast, this kind of performance is *indirect*—since the intention to perform an action does not result in the performance of the action if the pattern of movements involved in it is not selected—and is thus *mediated* by the tendency of the body to move.

### **Positive aspects of this view**

This introduction of the tendency of a body to move seems to avoid some of the problems of other theories of action. It also has more explanatory power and provides a unified explanation of different kinds of actions. For instance, it offers an explanation of actions which fail due to weakness of the will (akratic actions). In the next section, after the introduction of the idea of a body image which represents the movements open to a subject, this view will be capable of explaining the difference between automatic actions and non-automatic actions (Di Nucci 2011). It will also provide a unifying treatment of two kinds of complex actions which are normally explained separately: skilled actions and actions embedded in a sequential activity. And finally, since bodily movements are the result of a mechanism which does not involve the will of the subject, it offers an explanation of passive actions (as we shall see in the last section of this chapter).

In this section, I explain how the tendency of a body to move provides an explanation of certain phenomena.

According to my view, that which suggests a pattern of movements is not what finally causes an action. The final cause of an action is the tendency of a body to move, which makes effective a pattern of movements. The distinction between what offers or suggests a pattern of movements and the final cause of the action makes possible three explanations which were not given by other views.

It offers, first, an explanation of how a possible action is finally made effective—i.e., why subjects perform the action of eating chocolate when they have a desire to eat chocolate or why they put on the brakes when they see a red traffic light. A standard

way of explaining why possible actions are finally performed introduces intentions with executive properties; for instance, after the perception of a red traffic light, I form the intention to put on the brake. This way of explaining the actualization of possible actions is endorsed by the causal account of action. However, first, the introduction of this intention is often artificial in those cases in which the subject is not aware of intending to perform this action (here the theorist is often tempted to introduce sub-personal intentions). Second, it provides too active a characterization of action which cannot explain the existence of passive actions. Finally, third, the introduction of intentions presupposes that actions are exceptions to the normal state of the subject: it is necessary to introduce something, an intention, to perform an action, since the subject's normal state is one in which the subject is inactive and does not perform any action. This would not explain the feeling of fluidity that we usually have when performing actions. (These three problems are explored in more detail in Chapter 2.)

Giving up intentions and introducing the tendency of a body to move avoids these problems. It is not necessary to artificially introduce an intention to explain why a possible action is finally performed since pattern of movements are not only offered by intentions. The artificiality and the excessively active character provided by intentions thus disappear. This view consequently seems capable of providing a passive phenomenology, since there is nothing in its characterization which points to an active phenomenology: it is not the agent or any of their mental states which finally causes bodily movement. Also, according to this view, the performance of an action or the search for a pattern of movements is the natural state of the body.

On this view, since intentions are not necessary to conceptualize actions, a characterization of intentions which respects their intuitive nature is available. The notions of *intending x* and *having the intention of x* are complex notions, but it seems that they do not necessarily involve the performance of the intended action. It might thus be useful to deny that they must be causes of actions.

I also want to suggest that, by claiming that the effective cause of an action is not an intention but the tendency of a body to move and perform a pattern of movements, some empirical results concerning the role of intention can be reinterpreted. In Chapter 4, I presented some empirical results which apparently threatened the direct

relation between the subject intending to perform an action and the performance of the action (which—provided the theoretical framework according to which subjects perform actions through intentions—finally threatened *the performance of an action by a subject*). My view is immune to this threat, since it presents an indirect relation between intentions (when present) and the consequent performance which is not essential for action.

Let us take, for instance, Libet's experiments. Some interpretations of these concluded that the intention cannot result in the action, since the subjects were aware of their intentions after the activation of the readiness potential (a neurological motor command). According to some, we are pushed to conclude that the subject formed the intention to press the button after the neuronal onset of the movement. This interpretation considers that, since intentions should have executive power, the real intention is what the subjects feel when they feel "*now, I am really going to press the button*". It ignores the intention *I will press one of the buttons*, formed when the experimenter required the subject to perform the action. Here is an alternative interpretation of the experiment. There is the initial intention which represents the action of pressing one of the two buttons. The tendency of the body to move, for causes independent of the subject's will, makes effective the pattern of movements involved in this intention. In this case, the readiness potential would indicate the neuronal basis of the tendency, making effective the movements involved in the intention; and what the subject would report as an intention would only be the phenomenological access to the tendency making the movements effective. The intention (the first one) would not be a sufficient cause of the action but what would determine a pattern of movements. It is true that *which button to press* is not included in the content of this intention—its content might be something like *pressing one of these two buttons*. However, the tendency of the body to move can determine and fill some existing gaps in the pattern of movements involved in the intention. It is a less dramatic conclusion than concluding that intention plays no role at all in the action. This interpretation would not exclude the existence of an intention in the whole causal chain which results in the action; it would only deny its presence as the unique cause of the action.



Furthermore, the experiment by Anthony Marcel (2003b) can be given a more plausible interpretation if the tendency of a body to move is introduced. In this experiment, each subject was told to move their visually occluded arm to a point. Given the position of the arm, this would have involved moving the arm clockwise. Because of a vibrotactile stimulation, the subject felt their arm to be in a position different from their real position, in such a way that they formed the intention to move the arm anticlockwise in order to perform the task. Nevertheless, all subjects performed the correct movement, namely they moved their arms clockwise. Christopher Peacocke (2003) explained this result by introducing demonstrative content into the intention: the content of the intention is dual and includes both the content *I intend to move my arm anticlockwise* (the wrong movement) and the content *I intend to move my arm there*, and only the second is effective. Sinigaglia & Butterfill (2015) offer an interesting view of the relation between the content of an intention and its accessibility to consciousness, on the one hand, and the content of an intention related to motor representations, on the other, which supports Peacocke's interpretation of Marcel's experiment. This solution resolves Marcel's results without reaching sceptical positions about the role of the intention. I think that this dual-content kind of explanation is more parsimonious if the tendency of the body to move is introduced: the existence of a motor content would be explained by the fact that intentions are made effective by a bodily dimension, the tendency to move, which "reads" the intention as a motor pattern.

Another attractive feature of my view is that it provides an explanation of a phenomenon which is normally identified as a kind of weakness of the will: the fact that sometimes an intention does not result in the intended action (Davidson 1980, Searle 2003, Henden 2004). This phenomenon is a problem for theories which claim that, since the intention has executive properties, if an intention is present, the action must necessarily follow. Donald Davidson (1980) characterizes weakness of the will as what happens when an agent judges that it would be better to do *x* than *y*, believes that they are free to do either, and yet intentionally does *y* rather than *x*. Davidson's solution to the problem of actions which fail due to weakness of the will, *akratic* actions, claims that, if agents act contrary to their intentions, then they really did not have an intention of the right kind to perform the action. This solution makes his view of action immune to the problem (for a similar explanation of the weakness of the

will, see Hare 1952). Other authors, however, claim that there are akratic actions and that an explanation of action should explain this phenomenon.

My view does indeed provide an explanation of akratic actions. It holds that intentions do not result in movements until the tendency of the body to move makes the pattern of movements involved in the intention effective. This view breaks the link of causal necessity between intentions and actions, since it is the tendency of a body to move which makes this intention effective. Accordingly, *akrasia* is a constant possibility: an intention is not effective if the tendency of a body to move does not make it effective.

Conceptualizing intentions as involving a *possible* pattern of movements which is not effective unless it is selected by the tendency of the body to move, is similar to one of the claims that Searle makes in his account of *akrasia*. Searle explains akratic actions in terms of *a gap* between teleological mental states and actions:

the 'gap' is the general name that I have introduced for the phenomenon that we do *not* normally experience the stages of our deliberations and voluntary actions as having causally sufficient conditions or as setting causally sufficient conditions for the next stage. (Searle 2003: 50)

The problem of *akrasia*, to repeat (...) is such that it is always possible for a fully conscious rational agent to have the antecedent (e.g. the relevant moral judgment, unconditional intention, anything you like) and still not act in accordance with the content of that antecedent. Furthermore, this is not a rare occurrence. It happens all the time. (Searle 2003: 230)

According to the view I have presented, the gap is explained by the fact that the tendency of a body to move *does not automatically bring about* the pattern of movements involved in the intention. This pattern of movements might or might not be actualised by the tendency of a body to move. I claimed above that the actions resulting from intentions are *indirect* performances—since the intention to perform an action does not result in the performance of the action if the pattern of movements involved in it is not selected—and are thus *mediated* by the tendency of a body to move.

Finally, although I am not going to explore the point in detail, I think that the tendency to move can explain *the experience of the body as having the ability to perform actions*, even when the subject is performing no action. The experience of the body as something through which I can perform actions does not seem to depend on the performance of a concrete action, but to be something related to a permanent characteristic, like the tendency of the body to move. I am not going to explore this experience of ability or potentiality of the body in detail, since the focus of my exposition is the experience of concrete actions, in particular of those aspects which can explain passive actions. I think, however, that the possibility of explaining such phenomenology makes this view more plausible.

### **A body image which describes the movements open to a subject, and its relation to the tendency of a body to move**

In this section, I present three types of performance which seem to show, in opposition to what I defend, that the tendency of a body to move must be combined with an intention-based mechanism, since only the introduction of intentions can explain the determination of the movements to perform. I then propose an alternative explanation, that a *body image* which represents the movements open to a subject explains these performances.

I have proposed that the tendency of a body to move makes a pattern of movements related to a present element effective.

Consider, now, two types of action.

The first type is skilled action, and it is exemplified by the following situation (situation 1). I am driving and, as a response to a red traffic light, I change gears and I put on the brake. In this performance, the tendency to move makes the pattern of movements related to the perception of the red traffic light effective. This situation presents two features which are, in my view, difficult to explain, and which are normally explained by the presence of intentions with executive properties.

First, in this case, the pattern of movements cannot easily be related to the perception of the red traffic light. This perception does not involve a pattern of movements in the same way in which a bodily desire, as eating something I see, does. The bodily desire of eating something I see essentially involves a representation of movements to perform. The perception of a red traffic light does not. The explanation of putting on the brake has to relate a perceptual state to a pattern of movements, and this is a relation which I still have to expound. Intention-based theories do not present this problem since a perceptual state causes the movements mediated by an intention which involves a pattern of movements.

In order to explain the relation between the perceptual state and the pattern of movements, it is important to note that this relation seems to be mediated by the fact that the subject is manifesting a skill: it is through the process of learning a skill that the subject establishes the relation between the red traffic light and the pattern of movements involved in putting on the brake. The process of learning a skill does not only seem to explain the relation between a perceptual state and a pattern of movements, it also seems to explain the relation in actions in which mental states involve a pattern of movements: when driving, I might think something like “*Is my speed ok?*” which might be associated with the motor pattern of moving my head to see the speed I am driving at.

Second, the explanation of the action of putting on the brake on seeing a red traffic light requires us to explain the fact that the movements are made effective *in an immediate way*. The right view should give an explanation of this immediacy. I have presented the tendency of a body to move as a tendency which *selects* from among different motor patterns. In normal circumstances in which there is more than one possible pattern of movements, the tendency of a body to move non-willingly *searches for* and *selects* one of the possible patterns of movements to make it effective. Is this selection a problem when it comes to explaining immediacy and fluidity or, since it is a non-willing search and selection, does it result in an immediate performance? I think that it is actually a problem. Even if this search and selection is not wilfully undertaken, it introduces a process which does not result in immediate performances: it introduces the constant possibility of performing another action (this process explains the existence of weakness of the will). In contrast, most of our

actions are performed in an immediate way: I write in an immediate way what I want to write I also perform the actions of eating in an immediate way; I say what I want to say in a similar way; etc. In these performances, there is no search or selection from among different possible actions and the subject immediately and, other things being equal—the sequence may be interrupted—responds to the stimulus by performing the action. Such immediate performance might explain the fluidity of most skilled performances.

Intention-based theories claim to explain *immediacy* (situation 1), since intentions have executive properties: the movements are immediately made effective when the intention is executed.

However, on the one hand, although this explains *immediacy*, the explanation requires that immediacy be not fluent, since it introduces the formation of an intention between the perception of the red traffic light and the bodily movement. This is a problem for intention-based theories.

On the other hand, although a theory of action should explain immediacy, this explanation should also explain the fact that some performances are not immediate, for instance, in akratic actions. Thus, although immediacy seems to be a trait of some performances, the characterization of an action *should not make it necessary that there be an immediate relation* between the stimulus, which involves a pattern of movements, and the performance of an action.

These two questions which arise when explaining skilled performance (the relation between a stimulus and a pattern of movements; and the fact that it is immediately performed) also appear when explaining actions embedded in a sequential activity (for instance, dressing oneself, getting out of bed, or making a cup of coffee). I propose that actions belonging to a sequential activity require an explanation resembling that for actions embedded in the performance of a skill. In sequential activity, the performance of an action might be what, for the subject, involves the pattern of movements of the subsequent action: putting the cup in the coffee machine involves the pattern of movements to press the on/off button. The kind of explanation of view that I am presenting allows me to propose the same kind of explanation for both kinds of actions.

The second kind of action manifests itself in the following situation (situation 2). I am listening to a lecture and I start to doodle. According to my view, something involving a pattern of movements is necessary to determine the movements to be performed. However, nothing seems to explain the presence of this pattern of movements. There are other similar situations in which, although the performance is related to something, it is not clear that, for the subject, this thing determines the movements performed. For instance, I am having dinner and I see a plate full of apples. Without really having thought about it, I take an apple, peel it and eat it. It is not clear why, in this case, the perception of the apple involves this pattern of movements. This problem can be presented as a variation of the first problem posed by situation 1 (how to relate the perception of the red traffic light to the movements involved in putting on the brake). The general problem is how to explain, in some cases, the origin of the pattern of movements. As opposed to the case of the red traffic light and the pattern of movements involved in putting on the brake, in the case of the apple, there is no learning process which could help to explain this relation.

This action seems easily explained by means of intentions. Intentions explain the *origin* of the pattern of movements in all these situations: after considering the environmental situation, the subject forms an intention to perform an action.

In searching for an explanation of these features of actions which does without intentions, my view faces the same challenge as affordance-based views of action (I explored such views in Chapter 1). Those views aimed to explain the relation between a stimulus and the performance of an action without mediating the relation by means of intentions. According to the theory of affordances, subjects perceive possibilities of action in the environment (affordances) which cause their actions. I share with this kind of view the rejection of the claim that intentions are necessary to explain actions. In Chapter 1, however, I presented some problems for affordance-based theories; in particular, the fact that an affordance can only be explained circularly (affordances are defined in terms of possible actions and possible actions are defined in terms of affordances). In this section, I introduce something theoretically equivalent to affordances, but using other tools which avoid the problem of circularity.

My alternative employs relations between the tendency of a body to move and a *short-term activity-related body image*: a body image which represents the

movements open to the subject in the situation in which the subject is embedded and related to the activity that is being performed. This will provide an alternative explanation of the two theoretical roles attributed to intentions. This short-term activity-related body image, together with the tendency of a body to move, succeed in explaining situations 1 and 2 without appealing to intentions.

The notion of a body image was, as far as I know, first presented by Henry Head and Gordon Morgan Holmes (1911) who introduced a *postural model of the body* (which included three different models: the postural schema, the superficial schema and the body image, depending, among other aspects, on their relation to consciousness). Head and Holmes attribute a plastic character to these models that supports the immediacy of postural shifts and the accurate localization of body parts. Paul Schilder expanded on this theory in 1935 (1999 [1935]) and earlier to explain different bodily disorders; and the major reference in current discussions is the work of Brian O'Shaughnessy (1980, 1995, 2000). What, then, is the relation between this body image and the tendency of a body to move?

It has usually been assumed that there is more than one kind of body image, and different taxonomies have been proposed. The notion of body image that I am employing here is similar to what O'Shaughnessy calls '*short-term body image*' (O'Shaughnessy 1980: 262-298; it is presented in similar terms by Carruthers 2008). To characterize the short-term body image, it is first necessary to introduce the long-term body image, since the short-term body image is the product of the integration of the long-term body image with a subset of the momentary postural and bodily information available. The long-term body image represents the structure of the body—its shape, its articulations, its size, etc.—and the range of active movements which are open to the subject given this structure. The short-term body image describes the current position of the body and the *range of possible movements* in this current situation. What is important about this latter body image is that it offers a representation of the body in a motor format, in terms of the range of possible movements in a situation. Only because the subject has a body and a related body image is it possible to relate to potential movements, and it is not necessary to introduce a conscious intention to represent an intentional movement.<sup>41</sup>

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<sup>41</sup> This is the result of O'Shaughnessy's endorsement of a *sensory motor approach to body images*,

Importantly, in O'Shaughnessy's characterization, the short-term body image reduces the movements open to the subject because of the body position at a certain moment:

This is something that mutates from instant to instant, and not just because body posture continually changes but also because attentive focus shifts, whether because of the odd passing bodily sensation or else in accord with the intentional bodily occupations of the moment. Thus you could have the same bodily spatial state on two occasions  $t_1$  and  $t_2$ , but because you were physically active in one way at  $t_1$  and either physically inactive or active in some other way at  $t_2$ , different proprioceptive experiences would almost certainly occur at  $t_1$  and  $t_2$ . (O'Shaughnessy 1995: 184-185)

The first of these agencies [which causes the short-term body image] is the standard effect of present posture, notably postural/kinaesthetic sensations and maybe also certain cerebral effects; while the second may well be short-term memory of recent movement (...). (O'Shaughnessy 1995: 194)<sup>42</sup>

O'Shaughnessy here makes the short-term body image *relative* to attention (in the first quote), to the fact that the body is active or inactive (in the first quote), and to the short-term memory of the recent movement (in the second quote). I propose also to make the short-term body image sensitive to the *activity performed*. The body

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according to which body images are structured in terms of the movements open to a subject (other authors who endorse this view are Alsmith 2012; McDowell 2011). A sensory motor approach is also presented in Merleau-Ponty's *Phenomenology of Perception* (1989 [1945]). In Merleau-Ponty, this sensory motor approach embeds the body and its movements in a meaningful world. This results in an image of the possible movements in terms which are determined by this meaningful context.

The introduction of the short-term body image is also compatible with other non-motor approaches to the notion of body image. These other approaches must, nonetheless, accept that a *specific* body image describing the possible movements open to a subject exists.

Mazzu (1992) discusses the views the views by Schilder, Merleau-Ponty and O'Shaughnessy about the notion of bodily schema, the bodily unity and their relations with the subject.

<sup>42</sup> Although O'Shaughnessy is talking of a body image which involves a proprioceptive experience (sensations), the relation between body images and bodily awareness is not clear. I think that the body image that I am introducing is compatible with its characterization as a conscious entity, as an entity accessible to consciousness, or as an unconscious entity that maybe necessary for bodily awareness and awareness of action.



image (and thus the representation of the movements open to the subject) is different if the subject is driving or writing. This body image thus describes *the range of movements open to a subject in the current situation—which includes the activity that the subject is performing*. Thanks to this body image, when one is skilfully skiing, the movement of raising one's leg up to one's head is not a movement that is open to one.

I propose a second development of O'Shaughnessy's short-term body image which makes reference to the *sensitivity of this body image to situational cues*. Thanks to this, the range of movements open to the subject when driving is even more reduced when the subject perceives a red traffic light. In this case, there is only one movement open to the subject: the bodily movements required to brake the car. Let us imagine a subject who is reading a book: their short-term activity-related body image describes the movements open to them according to the activity of reading (only bodily movements which continue the activity of reading are included). When a situational cue is present, the range of movements is reduced: for instance, when the subject detects that they are reading the final line of the page, the body image presents the movements to turn the page.

The configuration of this body image is normally the result of *learning processes* which, from all the possible movements that a body can perform (raising your arm, opening your hand, taking a step, grasping something you see, etc.), *learns* the possible movement in this situation and thus reduces the range of possible movements. The function of a learning process is (and among others) to make the short-term activity-related body image responsive to the performance of an activity and to the associated situational cues.

The present proposal, then, is to introduce a body image which represents patterns of movements that are open to a subject not only in relation to physical bodily constraints, but also in relation to the activity that the subject is performing and to the situational cues that this activity involves. If the existence of body images describing movements open to a subject is accepted and plasticity is attributed to them, I do not think that there is anything problematic about the type of body image that I am introducing here. This introduction makes it possible to have, and indeed motivates, an alternative and superior explanation for those performances which seemed to

require an intention-based explanation. Let us see, in more detail, how it explains them.

1) *The origin of the pattern of movements*

The view I am presenting involves *two* different origins for a pattern of movements. The first explains the case of the bodily desire: this desire involves a pattern of movement. The second origin is the short-term activity-related body image. This body image reduces the possible patterns of movements when performing a skilled activity or in presence of a perceptual cue. When a skill or a sequential activity is well-established, the body image presents and determines only one motor pattern. This explains the case of the subject putting on the brake to stop the car in front of a red traffic light or the subject who presses the on/off button after putting the cup in the coffee machine.

The action which results from a bodily desire cannot be explained by the short-term activity-related body image. It would be artificial and *ad hoc* to introduce a body image related to any possible desire. No learning process would have this result. Any mental state which results in the performance of an action, a desire, an intention or a projection, should involve a pattern of movements determined by the short-term body image (except in mental states which are a situational cue). The tendency of a body to move can only perform the pattern of movements involved in a mental state if that mental state determines this pattern of movements. I am thus introducing a necessary condition for mental states to result in the performance of movements: only *bodily* mental states can result in a performance. There is, thus, a difference between a kind of mental state which involves a pattern of movements and which can be selected by the tendency of a body to move, and mental states which do not. The desire to eat chocolate is of a different kind, depending on whether it involves a possible movement or not. I do not think this distinction between two kinds of mental states as a function of their possibility of resulting in an action is problematic (for instance, the difference between a general desire to eat chocolate and the bodily desire to eat the chocolate in the kitchen as soon as possible). My view also requires that, in order to be able to result in the performance of an action, the pattern of movements should

be *rather simple*. The tendency to move might be capable of making the intention to phone *x* effective, but not the intention to go to Paris.

There are thus two kinds of origins for motor patterns: either they are directly involved in a mental state or they are determined by the short-term activity-related body image. Maybe this difference results in a difference in the kind of action performed: the latter might result in what is sometimes called ‘automatic actions’<sup>43</sup> (Di Nucci 2011), since in them, the movements are determined by the body image; whereas in the former the result is non-automatic actions, since the movements are determined by a mental state of the subject. I think, however, that this distinction is not important for the characterization of passive actions since both kinds include passive actions: I might change gears and eat chocolate in a passive way.

The fact that some performances do not seem to be the result of anything involving a pattern of movements, for instance, the movements of doodling when listening to a lecture, needs to be explained. I think that, in this case, the movements are ultimately determined by a complex combination of some bodily mental states and the movements open to the subject given the situation. The tendency of a body to move makes one of the possible patterns presented in this situation effective. I have described the body image and bodily mental states as neatly presenting a range of movements open to a subject. In some situations, what determines the movements is, however, less clear, since more than one skill or sequential activity might be involved, or more than one mental state might be present. Consider the case of the subject who starts to draw lines during a lecture. In this case, there is a relation between the short-term activity-related body image (related to the activity of listening to a talk), the perception of the pen, and the different possible mental states of the subject (for instance, five seconds ago, the subject was mentally self-represented drawing lines). Nothing in this situation seems to determine the pattern of movements to draw lines, but nevertheless, the pattern of movements was there (both the body image plus the perception of the pen, or a previous bodily projection of drawing lines). I think that this kind of indeterminate situation is very usual. It can be explained by my model

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<sup>43</sup> “(...) routine performances that we successfully and effortlessly complete without thinking such as turning a door handle, downshifting to 4<sup>th</sup> gear, or lighting up a cigarette (...).” (Di Nucci 2011: 179)

since this allows for more than one pattern of movements to be available, albeit vaguely, and for these to result in an action without the formation of an intention.

## 2) *Immediacy*

The second aspect to be explained referred is the fact that some performances are immediate. I think that immediacy is explained as follows. Because of the tendency of a body to move, the situation in which no movement is performed is a situation of instability in which the body searches for possible movements. This situation is cancelled out if the subject is embedded in the performance of a skill, or in a sequential activity, and the body performs the movements necessary to continue performing that skill or sequential activity. If the short-term activity-related body image offers only one movement, the tendency satisfies it immediately and the subject performs actions in an immediate and fluid way. Because of the tendency of a body to move, the continuous performance of action is a situation of stability.

This does not mean that in the situation in which there is only one movement open to the subject, that movement is, without exception, immediately made effective. For different reasons, the subject might not perform the movement. For instance, fatigue might not allow the tendency to move to respond to the pattern of movements in the expected way; or maybe the short-term activity-related body image for the activity is not completely formed (and more learning is necessary).

The tendency of a body to move, in addition to the short-term activity-related body image, thus presents an explanation of the performance of the movements of an action without introducing intentions or other mechanisms related to the will. It is, thus, a *passive* way of explaining bodily movements. In the next section of this chapter, I will argue that this mechanism is able to explain the existence of passive actions.

My view might get support from different developmental studies which consider that the body babbling of newborns should not be considered to be a purely reflex

movement.<sup>44</sup> In these experimental studies, body babbling is presented as goal-directed, context-sensitive and under the guidance of attention (van der Meer et al. 1995, Hofsten 2004).

Although it is not developed this way, the opposition between the views which consider that newborns' movements are purely reflex movements and the views which consider that they are active movements can be presented as an opposition between two ways of characterizing the nature of action. If action is characterized as the result of a subject having and implementing an intention, the movements of newborns and young children can hardly be characterised as something active. The claim that newborns' movements are active movements seems therefore to require a revision of the characterisation of what it is to perform an action. This discussion is, however, not explicitly posed in these terms, and, indeed, in order to argue that these movements are active, intentions and motivations are sometimes introduced for the purpose of explaining the fact that these movements are not purely reflexive:

Converging evidence from many different fields of research suggests that human movements are organized as actions and not reactions, that is, they are initiated by a motivated subject, defined by a goal, and guided by information. (Hofsten 2004: 226)

However, the illustration of how these motives work suggests that what is called 'the motivated subject' does not involve the subject having and implementing the standard philosophical notion of intention:

For example, before infants master reaching, they spend hours and hours trying to get the hand to an object in spite of the fact that they will fail, at least to begin with. For the same reason, children abandon established patterns of behaviour in favour of new ones. For instance, infants often try to walk at an age when they can locomote much more efficiently by crawling. In these examples there is no external reward. It is as if the infants knew that sometime in the future they would be much better off if they could master the new activities. The direct motives are, of course, different. I have argued earlier that children find pleasure in exploring their action possibilities. When new possibilities open up as a result of, for example, the establishment of new

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<sup>44</sup> This is the view endorsed, for instance, in Gesell & Amatruda (1947), Piaget (1952) and White, Castle & Held (1964). More recently, Thelen et al (1984) presents stepping as a newborn reflex. Rochat & Hespos [1997] argue against some of these views.

neuronal pathways, improved perception, or biomechanical changes, children are eager to explore them. At the same time, they are eager to explore what the objects and events in their surrounding afford in terms of their new modes of action. (Hofsten 2004: 36)

In this quotation, what is more similar to intentions is what the author calls ‘direct motives’ –which cannot be identified with the intention to perform this action. The motivated subject, according to Von Hofsten, presents similarities with the subject who performs an autotelic action (an action performed for its own sake, like following a bird for the sake of following a bird). Autotelic actions are presented as counterexamples to instrumental views about action since they are not the result of a subject’s desire to achieve a different end. Similarly, newborns’ movements would also be a counterexample to these views about action.

These studies of the movements of newborns distinguish between the fact that movements might be the result of an intention and the fact that they are goal-directed and subject to attentional guidance. Newborns’ movements, even when goal-directed and subject to attentional guidance, are not the result of an intention to perform something by means of them. This view leaves unexplained the causes of these movements. It seems plausible that body babbling could somehow be explained in terms of the tendency of a body to move. I have just provided such an explanation. The distinction between a movement being goal-directed and being the result of an intention is also a key distinction in my reasoning. I have argued that the existence of goal-directed movements which are not the result of an intention is explained by the tendency of a body to move and the determination of the pattern of movements by a short-term activity-related body image.

In these studies, the agents are described as observers of their movements. These agents learn the goals that their movements satisfy and improve their way of acting by attending to their movements or to the surroundings. Meltzoff & Moore (1997), for instance, propose an explanation of facial imitation based in the fact that subjects, while body babbling, observe and learn what the authors call ‘organ-relation end states’.

By organ-relation end states (‘OR end states’) we mean a configural relation between organs. For example, three differentiable OR end states differing in

extension might be: tongue-to-lips, tongue-between-lips, tongue-beyond-lips. Because both the dynamic patterns of movement and the body end states achieved can be monitored proprioceptively, infants' body babbling builds up a 'directory' mapping movements to OR end states. (Meltzoff & Moore 1997: 184)

If mature action is finally the result of an increasing complexity of these movements of newborns in a process which does not introduce the will in a basic way, the views presented in these developmental studies might give support to the view I have proposed. It would then be necessary to show how, from body babbling, the subject manages to control and modify their action and to perform intentional actions, in order to evaluate the role or the absence of role of the will. In the direction of minimising the role of the will, the process underlying the achievement of mature action has been explained by the development of agentic control over one's attention and inhibitory control (McClelland et al. 2010), and, alternatively, as a transition from simple arousal to fully endogenous attention (Colombo 2001).

### **An explanation of passive actions**

My hypothesis is that a passive mechanism which explains the performance of movements can explain the traits of passive actions. The tendency of a body to move in combination with the short-term activity-related body image seems to be this passive mechanism. It results in movements without an agent—conceptualized in any of the possible ways—performing those movements.

At this point, one theoretical option is to explain passive actions as the output of this passive mechanism. However, first, this mechanism results both in the movements of

passive and of active actions. Why, then, might this mechanism result in the experience of passivity only in passive actions? Second, this mechanism results in the *movements* of an action, while I am searching for an explanation of the experience of a kind of *action*: the tendency of a body to move results in movements while the experience of a passive action is the experience of *an action*.<sup>45</sup> An explanation of how the subject finally performs an action is required.

Some reflexions about the experience of movements can shed light on how the action is finally performed. An important trait of the experience of movements is their *lack of salience*. For instance, while typing on a laptop, I do not vividly experience my fingers on the keyboard, and my conscious experience is primarily occupied by the content of what I am typing rather than by the movements thanks to which I type. The following fragment from O’Shaughnessy describes this lack of salience of the experience of movements. It also presents an exception to the general rule—what he calls ‘*introspective proprioception*’:

After all, introspective proprioception (as we might call it) is the exception rather than the rule. Even self-concerned bodily acts, such as occur when a cat washes behind its neck, take place in situations in which the attention passes beyond the active limb and focuses on a distinct object (which in this case happens to be part of its own body). (O’Shaughnessy 2000: 630)<sup>46</sup>

By means of what O’Shaughnessy calls ‘*introspective proprioception*’, the experience of the movements becomes salient and becomes *the experience of an action*. The lack of saliency seems to be a necessary trait of the characterization of the movements of an action and the only way in which it is possible to conceive of a salient experience of the movements is the experience of bodily movement as an action. I think that such a mechanism provides a clue as to how to explain what it is

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<sup>45</sup> In Chapter 3, I concluded that there was a performance of the movements different from the performance of the action. The main reason for this difference was to avoid the problem of the elusiveness of basic actions.

<sup>46</sup> Drew Leder (1990), more generally, talking not only about action, observes that the most permanent and preponderant object in life may also be the most elusive one:

This bodily presence is of a highly paradoxical nature. While in one sense the body is the most abiding and inescapable presence in our lives, it is also characterised by its absence. That is, one’s own body is rarely the thematic object of experience. (Leder 1990: 1)



to perform an action. Why not hypothesize that a mechanism similar to introspective is responsible for turning the performance of movements into the performance of an action? This hypothesis fits my conclusions about basic actions. In Chapter 3, I concluded that movements were goal-directed and that the different goals were the goals of a potential action. I left aside the explanation of the process by means of which those potential actions become an actual action. This could happen through something similar to introspective proprioception—in which the performance of the action depends on a body which is moving. By means of this mechanism, *the agent who performs* an action would finally make an appearance in this view.<sup>47</sup>

This explanation of how introspective proprioception results in the experience of an action is, at this moment, rather vague. The mechanism seems to be grounded in the property of attention which consists in transforming some bodily states into an action. Although in O’Shaughnessy’s and in my examples, introspective proprioception focuses on movements which are the movements of an action, it seems that introspective proprioception of bodily states also results in the performance of an action. I might, for instance, focus my attention on the position of my body which, at that moment, becomes something active. What is important for my view is that something which is not the will and which does not seem to be related to an intention to perform an action is the cause of an action. The way in which introspective proprioception results in action is in tension with the views which ground action in the will. Next, I will present a mechanism of this kind to explain passive actions. I will present this kind of mechanism without discussing its details. The goal is to present some guidelines for the explanation of how the subject performs actions once it is granted that body movements to perform an action are the result of its tendency to move.

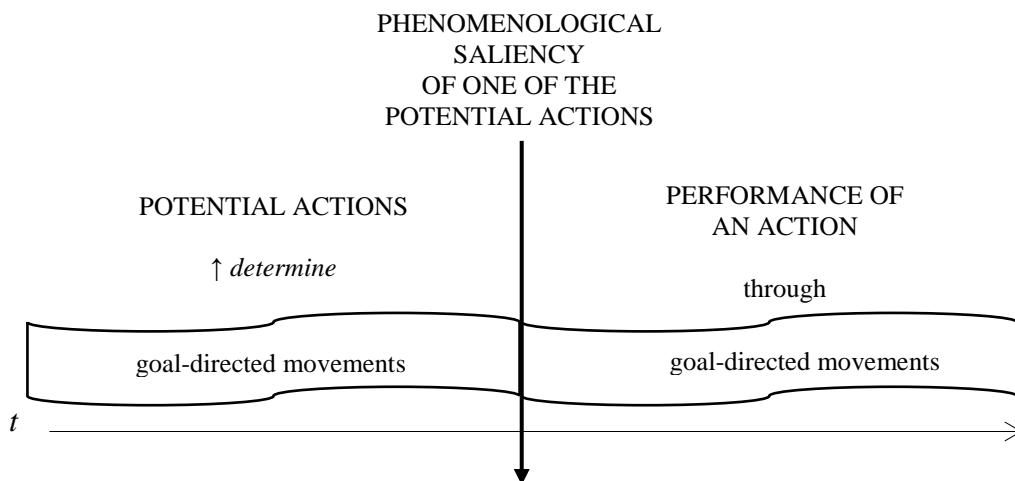
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<sup>47</sup> When explaining the tendency of a body to move, I perhaps gave the impression that movements performed determine *one* action. Here, and in the conclusions to the discussion on basic actions, I seem to claim that movements involve many goals, and thus that there are many possible actions that the subject can ultimately perform. I endorse the latter claim. The tendency of a body to move selects a pattern of movements which involves many different goals; each is the goal of a different potential action. Some of those goals are probably more likely in the given situation to become the goal of the action performed.

## The performance of a potential action

I suggest that the existence of the tendency of a body to move naturally allows us to characterize the performance of an action in the following way:

- (a) the performance of an action is the *actualization of one of the potential actions* that the movements determine,
- (b) this happens when the potential action becomes *phenomenologically salient*.



According to this view, there is one kind of performance before the action becomes phenomenologically salient, and another one after it. What is usually termed ‘the performance of an action’ refers to the second type. Although in many performances the action becomes phenomenologically salient immediately after the subject starts to move their body, at other times, it does not happen immediately, for instance: when doodling while talking on the phone, when scratching oneself, when tapping one’s fingers on the table, or when pushing the accelerator when driving. If the action does not become phenomenologically salient, this performance is not, properly speaking, an action and it can be called ‘a performance’. Maybe this is only a terminological issue, and some could also argue that in performance without action we can talk of a subject ‘performing’ an action. However, in that case, a difference should be

introduced between the way the subject performs the action before its phenomenological saliency and after it.

The mechanism which results in the phenomenological saliency of the action should not be conceptualized as an action, for this would lead to a regress: any performance of an action would require the performance of another action, which, in turn, would require the performance of a further action, and so on.<sup>48</sup> I propose to explain it as the second step of the tendency of the body to move. After the body moves because of its tendency to move, there is a *tendency to actualize one of the potential actions which the movements determine*, by making it phenomenologically salient. The tendency of a body to move would thus ultimately be a *tendency to act* composed of the tendency of the body to move and of the tendency of the action to become phenomenologically salient in the stream of consciousness.

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<sup>48</sup> This is a problem which affects a view with certain similarities to mine: the endorsement models of action presented by Harry Frankfurt (1988, 1999, 2008) and David J. Velleman (1989, 1992, 2000a, 2000b). Like these authors, I think that only at the moment at which the subject endorses the action (in my view: the moment when the action becomes phenomenologically relevant), is the subject *able to agentially control, to modify, and to think about the action*. The endorsement is what introduces *the agent* into the action. A problematic question often asked of endorsement models of action concerns the nature of the endorsement. Those models have normally been criticized for presenting the endorsement as itself a kind of action, a picture which clearly results in an infinite regress. Frankfurt's view, for instance, is affected by this problem. The nature of the endorsement is not clear. If this endorsement is an action of the subject, then a regress appears (Watson 1982 presents a clear formulation of this problem). In 1988 and 1999, Frankfurt presents more complex accounts of the endorsement; they are, however, ultimately also formulated in terms of performing an action. Peter A. Railton (2009) also argues that this problem appears in almost all theories which employ this kind of endorsement picture: choosing one's reasons, endorsing certain reasons, identifying a certain reason or throwing one's weight behind one reason rather than another (possible acts through which the endorsement is conceptualized) are themselves fully fledged acts (Railton 2009: 103).

For the regress to be avoided, Railton proposes that a psychological process must be introduced which enables agents to endorse what is endorsed by a mechanism other than choosing, endorsing, or other acts. Railton names '*practical competence*' such "non-deliberative causal psychic processes" (Railton 2009: 104). I think that phenomenological saliency is a kind of non-deliberative process since it is not necessary to conceptualize it as an action.

When a performance becomes phenomenologically salient, it becomes an action performed *by a subject*. I suggest that this process introduces the subject in one of two ways: either in a *passive way* as an observer, or in an *active way* as an agent (who can exercise control, modify or stop the action). I thus propose to explain the distinction between passive actions and active actions by introducing two ways of actualizing the potential action: a passive and an active way. While the latter embeds the action in the motivational world of the subject (which allows the subject to have reasons to modify the action), the former is less cognitively demanding.

The following example illustrates the difference between actualizing an action in the active way and actualizing it in the passive way. Suppose I raise my arm in order to vote for candidate *x*. This action may be the result of the following process. First, I have decided to vote for *x*. When the moment to vote arrives, the tendency of my body to move performs the motor pattern involved in my decision and I raise my arm. In this case, and since I am aware of my action, my action of voting for *x* is immediately actualized. This actualization embeds the action in my motivational world (according to which I want to vote for candidate *x*, since I have reasons for doing so) and I access my vote as something performed because of these reasons. The second case might appear in the following situation. I raise my hand to vote for candidate *x* as an automatic response to the fact that all the people around me are raising their hands to vote for *x* (in Chapter 0, I presented other similar situations). When I actualize this action, which might not happen immediately, I feel that I have performed the action because I was responding to other people raising their hand. Here the ‘because’ is causal.

When actualizing the action in the passive way, subjects observe their body performing a pattern of movements offered by a situation. Such subjects are not the performers of the action, but observers of their body moving to perform the action. What explains why this action is an action is the fact that the movements of the action are the manifestation of the tendency of the body to move.

In contrast, when *actively actualizing an action*, subjects become the agents of actions. This means that they can control, modify, or stop the action for their own reasons. I am not going to explore in detail how the subject controls, modifies or stops an action. It might be the result of mental states of the subject which might present

alternative patterns of movements. In contrast to the case of the passive actualization of an action, in active actualization, there is a link between the action and the reasons for it: the subject is eating a biscuit because she is hungry. The relation to reasons is explained by the fact that the way of actualizing the action embeds the action in the motivational world of the subject. Finally, and as I will explain in the following section, this relation is explained by the fact that the active actualization of an action appears when the action is performed because of reasons (even if those reasons are not sufficient).

The distinction between these two types of actualization does not have many precursors. One is due to Searle (1983). To explain his view, I need to use his terminology of prior intentions (which cause the action) and intentions in action (which cause the movements) which I presented in Chapter 2 above. Searle proposes that prior intentions and intentions in action play different roles in the rationalization and explanation of actions. The prior intention explains and rationalizes the action—the prior intention of voting for Jones explains and rationalizes the action of voting for Jones—while the intention in action only explains the movement: it is not capable of rationalizing it. For this reason, in actions in the minimal sense, for which there is no prior intention which causes them, there is no rationalization of the action, and the action is felt as caused:

If I am asked, “Why did he raise his arm?” [a question about the reasons for the action], it sounds odd to say, “Because he intended to raise his arm [an intention in action, which causes the movements]”. (...) But notice it doesn’t sound at all odd to specify the intention in action as the cause of the movement (...). (Searle 1983: 106)

I share with Searle the difference between two kinds of explanations involved in action: a rational one (since the prior intention rationalizes the action), and a causal one in actions in the minimal sense (in these actions there is no prior intention to rationalize the action).

However, in contrast to Searle, I do not deny the possibility that a kind of rationality is involved in what Searle calls ‘an action in the minimal sense’, and I do not set the difference between passive and active actions in terms of the presence and absence of rationality. I think that there is a link between action (in any of its forms) and rationality that I do not want to break. Although the movements to put on the brake

on seeing a red traffic light are experienced as responding to the red traffic light, they seem to be rational. In this case, the rationality seems to be explained by the fact that the motor patterns are *rationally established*. This is not the rationality involved in the active case, in which subjects embed the action in their actual motivational world (the set of reasons that they have at the moment at which they perform the action and which, for instance, caused the bodily desire to vote for candidate *x*), but a kind of rationality derived from the fact that the short-term body image determines pattern of movements which are correct, a normative property, given the situation.

More recently, Michael Brownstein (2014) has presented some cases in which the subject acts, but does not seem capable of answering the Anscombean why-question about the reasons for the action. He illustrates his position by presenting many introspective reports from people who claim that sometimes they perform an action although they are not capable of answering a why-question about their actions. For instance:

At the very least, experts frequently *say* that they don't know what they're doing or why. Hall of Fame NFL running back Walter Payton said, "people ask me about this move or that move, but I don't know why I did something, I just did it". (Quoted in Beilock 2010: 224) (Brownstein 2014: 556)

After presenting other similar cases, Brownstein argues that although Payton's behaviour differs from standard actions, it is nevertheless a type of action.<sup>49</sup> I think that in these cases, although the answer to the why-question is not the standard one,

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<sup>49</sup> He argues in the following way that such behaviour represents actions (Brownstein 2014 : 562):

- (1) We describe athletes' play, for example, with person-level adjectives, such as courageous or timid, creative or mechanical, joyful or uninspired. This suggests that there is a *prima facie* sense in which skilled unreflective actions really are *actions*, and not expressions of an agent's mere motivational nature (or of some equivalent sub-agential features of agents).
- (2) I will discuss recent neuroscientific research on improvisational musicians which suggests that some skilled unreflective actions exemplify important characteristics of agency without being consciously self-monitored in the way that one would expect of Anscombean actions. (...)
- (3) I will argue that some non-Anscombean skilled unreflective actions are "self-expressive," which is to say, they disclose elements of who an agent is.

it is possible to answer it by invoking the rationality of the process which resulted in the movements, thus avoiding breaking the link between action and rationality. The movements are rational given the movement of the ball.

### **Situations in which a potential action is actualized as a passive action**

I propose that there are *three* kinds of situations which prevent the active actualization of a potential action and which thereby lead to passive actions: situations related to the origin of the movements, to the circumstances of the endorsement, and to the subject.

#### *Passive actualization due to the origin of the motor pattern*

- (a) Active actualization cannot happen when the origin of the motor pattern does not bear any relation to the motivational world of the subject (for instance, voting for *x* as a reaction to other people doing so). In this case, embedding the action in the motivational world of the subject is not possible and the subject performs a passive action.

#### *Two kinds of passive actualization due to the circumstances of the actualization*

- (b) Sometimes, the actualization of the potential action does not happen immediately after the body starts moving. There are several reasons why this actualization might not happen immediately, for instance, when one is absorbed in something else or is performing two different things at once. In some of these cases, the subjects might realize that they were performing an action—a process through which they *retrospectively actualize* the action performed. Retrospective actions are endorsed in a passive way since the subject cannot be the agent of these actions (which they have only just discovered).
- (c) Also, the experience in detail of the movements of an action results in the performance of a passive action. The action *typing my name* might be endorsed in my motivational world. By contrast, the action of typing letter *a*, through which the action of typing my name is performed, is not primarily endorsed in my motivational world since its rationality is derived from the way the actions are

performed. This point explains the relation between passive actions and basic actions.

*Passive actualization due to the subject*

(d) A fourth and important kind of passive action includes those actions performed, as we say, ‘in the flow’; for instance, the actions of expert tennis players who let their bodies respond to the game. In acting in the flow, the subject lets the actions happen and feels like an observer of what is being performed. Unlike cases (a), (b) and (c), this kind of actualization does not arise from a situation which prevents the actualization in the active way, but from the fact that the subject *has learnt to actualize this action this way* (the reason for learning to perform an action in this way might be effectiveness, since actualizing this way is less cognitively demanding). It is normally thought that a condition for this kind of endorsement is that the subject is performing a skill or a sequential activity. However, I think that it possible to imagine a situation in which the subject acts in the flow, although performing other kinds of actions, simply letting different actions happen: there are methods for learning to endorse potential actions in a passive way.

**The introduction of the tendency of a body to act: a Wittgensteinian view?**

The introduction in the foregoing of a bodily movement which is the result of a tendency of a body to act presents an alternative explanation to intention-based explanations of action. The reasons which lead to the introduction of this kind of bodily movement have some similarities with some of the arguments presented by the later Wittgenstein for his views on language. The relation between my view and Wittgenstein’s claims is a relation between two different areas of study, action and meaning. Wittgenstein claims that the meaning of an expression is, in many cases, its use. The use of an expression is constituted by the actual and possible applications of an expression, each of which involves actions.



As I hope to show, there are interesting connexions between my view and these claims and arguments of Wittgenstein's.

Most of the later Wittgenstein's claims about language have a critical character, opposing a view often called 'mentalism'. Mentalism holds that there is an ontological priority of thought over language, according to which a linguistic expression acquires meaning when it is interpreted by a speaker by means of a mental act in which it is associated with a mental image. This mental image represents, in a relation of natural similarity, an extramental entity or property.

Against this view, Wittgenstein argues that a mental image is neither sufficient nor necessary to produce and to understand meaningful expressions. It is not sufficient, since it is not capable of determining correct and incorrect uses of an expression (meaning has a normative character since the meaning of a word determines when a word is correctly or incorrectly used).

(...) Well, suppose that a picture does come before our mind when you hear the word "cube," say the drawing of a cube. In what sense can this picture fit or fail to fit a use of the word "cube"?—Perhaps you say: "It's quite simple;—if that picture occurs to me and I point to a triangular prism for instance, and say it is a cube, then this use of the word doesn't fit the picture."—But doesn't it fit? I have purposely so chosen the example that it is quite easy to imagine a *method of projection* according to which the picture does fit after all.

The picture of the cube did indeed *suggest* a certain use to us, but it was possible for me to use it differently. (...) (PI §139)

Wittgenstein also argues that mental states are not necessary for the production and understanding of meaningful expressions, since they do not guarantee a whole reason-based process. An important intuition in favour of mentalism is that it seems to explain the feeling of internal justification for linguistic processes. Mentalism proposes an explanation of such internal justification through the natural similarity of the mental image with the extralinguistic entity or property. However, mentalists should accept that a part of the mental process—the association between the word and the mental image—is not rationally justified, but is the result of an associative and causal process. The subject who hears a word relates the word to a mental image in a process which is *associative* (the word 'apple' is *associatively* related to the

mental image of an apple). Accordingly, actions in which this word is involved are based on an associative process, which relates an expression to a mental image. Wittgenstein wonders, then, why, if one part of the whole process cannot be internally justified, we do not suppose that the whole process is an associative process between the word and the related action.

B learnt to bring a building stone on hearing the word “column!” called out. We could imagine what happened in such a case to be this: In B's mind the word called out brought up an image of a column, say; the training had, as we should say, established this association. B takes up that building stone which conforms to his image.—But was this *necessarily* what happened? If the training could bring it about that the idea or image—automatically—arose in B's mind, why shouldn't it bring about B's actions without the intervention of an image? This would only come to a slight variation of the associative-mechanism. Bear in mind that the image which is brought up by the word is not arrived at by a rational process (but if it is, this only pushes our argument further back), but that this case is strictly comparable with that of a mechanism in which a button is pressed and an indicator plate appears. (Wittgenstein 1969: 89)

An associative process between linguistic expressions and their associated acts of meaning is what Wittgenstein finally proposes to explain language. The production of acts of meaning is not, in the first place, the result of a rational process, but of a causal process.

The arguments against the sufficiency and the necessity of mental states to produce and understand language call for a distinction between *grasping the rule* of how to use a word—a mental process—and *following that rule*. Wittgenstein proposes that the following of a rule is misunderstood, since it is explained through the grasping of the rule by the subject. For the reasons mentioned, the grasping is neither sufficient nor necessary, and a causal associative process is proposed.

(...) When I obey a rule, I do not choose.

I obey the rule blindly (PI §219)

(...) And to think one is obeying a rule is not to obey a rule. (PI §202)

(...) What this shows is that there is a way of grasping a rule which is *not* an *interpretation*, but which is exhibited in what we call "obeying the rule" (...) in actual cases. (...) (PI §201)

I now explore how this view is related to my previous discussion of passive actions.

In Chapter 2, I presented some problems for a *mentalist* explanation of passive actions. The views of Bach, Searle, and Pacherie propose to explain passive actions by means of a mental state, a bodily intention, which results in the performance of an action. Wittgenstein's argument against the sufficiency and necessity of mental images is related in an interesting way to some of the problems of this kind of explanation of action by means of intention.

First, in the literature against these views, there is a Wittgensteinian argument. Just as a mental process cannot suffice to determine the correct meaning of an expression, so too, Dreyfus argues, no representation of the environment can determine a course of action—what he calls 'the problem of relevance' (Chapter 1). In the same way in which a mental image does not determine the correct or incorrect use of a word, the intention of the subject cannot determine the correct action. Second, there is an analogue of the necessity problem in the mentalist explanation of action. Wittgenstein argued that since an associative process exists in linguistic acts, the whole process could be explained as an associative process. To explain passive actions, the formation of intention has sometimes been presented in a sub-personal way (which explains the fact that the subject was not aware of its formation). This step undermines the role of the subject as the rational agent who performs the action. As in the case of language, if a specific situation associatively results in the formation of a sub-personal intention, why not think that the intention results, by association, in the performance of an action? Intentions would not be necessary and a causal process should be proposed.

The problems that Wittgenstein poses for mentalism have a counterpart in my phenomenological objection to intention-based theories. Wittgenstein seems to present a kind of experience of passivity as the phenomenological confirmation that following the rule is not grounded on the grasping of the rule. The following of a rule is associated with a kind of experience of passivity.

(...) But now notice this: *while* I am being guided everything is quite simple, I notice nothing *special*; but afterwards, when I ask myself what it was that happened, it seems to have been something indescribable. *Afterwards* no description satisfies me. It's as if I couldn't believe that I merely looked, made such-and-such a face, and drew a line.—But don't I *remember* anything else? No; and yet I feel as if there must have been something else; (...)—Only then does the idea of that ethereal, intangible influence arise. (PI 175)

Wittgenstein here describes an experience which seems to internally confirm that sometimes following a rule is not grounded in grasping a rule. This experience seems to be similar to the experience of surprise through which I characterize (in Chapter 0, above) the retrospective experience of passive actions, and which presented some initial problems for intention-based theories of action.

The fact that Wittgenstein's problems for the mentalist explanation of meaning resemble arguments which appear in the discussion of passive actions suggests that we should explore the relation between Wittgenstein's associative view of meaning and my view of passive actions.

Although Wittgenstein proposes that to follow a rule is something like just reacting as the subject has been trained to (§198), proceeding in whatever way comes naturally to them (§185), obeying a rule blindly (§219) or acting without reasons (§211), it is, however, currently debated whether Wittgenstein endorses the kind of behaviourist picture which it seems possible to derive from these passages. In Chapters 1 and 4 above, I explored two kinds of behaviourist explanations of action: those of Clark and Bargh. Those explanations of passive actions were, however, unsatisfactory since they were insufficient to explain what it is to perform an action. I pointed out that, even if subjects do not cause their actions through an intention, as conscious subjects, they must be related to their performance, and that the performance of an action is not a blind performance. To avoid this kind of sub-personal view, I eventually presented a causal mechanism which resulted in a *basically agential* movement: the tendency of a body to move. This view is a causal view and, using Wittgensteinian terms, does not ground the following of a rule in the grasping of the rule.

However, I present a process in which conscious subjects and their mental states can be an (insufficient) cause of the performance of an action. In this sense, my view

agrees with, and complements, some interpretations of Wittgenstein, according to which, the function of a sign is to guide the linguistic acts of one's interlocutors and indeed also of the speaker according to such a view, the essential relation of a word to an action is that it suggests that the subject performs some actions. Before Wittgenstein, Karl Bühler (1990 [1934]) explored the importance of this linguistic function. Bühler proposed three different kinds of linguistic functions: the expressive function, the representational function and the guiding or "appeal" function. The appeal function is that of influencing the behaviour of the addressee, and it also appears in non-linguistic contexts. For Wittgenstein, since meaning is constituted by the actions associated with the use of an expression, this guiding function might well be the essential function of a sign<sup>50</sup>. According to this view, the linguistic expression becomes a sign which guides one's interlocutors but also the subject, orients the subject's actions or suggests the performance of actions to the subject. The conceptualization of the sign as what guides the subject does not involve the view that the perception of the sign suffices for the performance of an action. For this reason, according to this view, the grasping of the rule or of the sign is different from the following of the rule. A more detailed analysis of how the relation between signs and actions should be explained has, however, and as far as I know, not been proposed. This relation is normally illustrated by presenting some cases which are typically cases of *passive* actions, for instance Bridges (2004):

The clearest example of this [the function of guidance] we might draw from ordinary life is a case in which, as we say, one's "mind is elsewhere." Suppose you are driving someone to a location unfamiliar to you, which necessitates her occasionally directing you to turn this way or that. Simultaneously you are engrossed with her in a conversation on some other topic. You grasp her directions and put them into action, but that happens subliminally: your attention is wholly focused on the conversation. A proponent of the 'guiding' conception might appeal to this sort of situation as an analogy for what goes on when one is guided by one's understanding of a simple rule like *add two*. (Bridges 2004)

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<sup>50</sup> For a detailed exploration of the relations and differences between how Bühler and Wittgenstein analyse this function and the relation, in both, with the other linguistic functions, see Mulligan (2014, chapter 6).

Indeed, the explanation of linguistic guidance requires an explanation of the phenomenon of being guided. My explanation of passive actions offers an explanation of this phenomenon. Being guided would be the relation the subject stands in with respect to something which, for the subject, is related to a pattern of movements, and that the tendency of a body to move might or might not satisfy.

Thus, although I have not explicitly aimed to argue for a Wittgenstein theory of action, my view ultimately displays important Wittgensteinian elements. Against intention-based explanations of action—which, in fact, appeared in reaction against Wittgensteinian views, for instance Charles Taylor’s *The Explanation of Behavior* (1964)—my view recovers some Wittgensteinian claims. In this sense, it could be interesting to examine and revise these old Wittgensteinian views on action in the light of the introduction of the tendency of a body to move and the short-term body image.

### **The bodily agent of passive actions**

A likely objection to my view is that it is a *homunculus view*. What triggers the objection is that my view seems to ascribe action to a body and not to a subject. One way of avoiding this fallacy is to attribute to the body what is sometimes called a ‘bodily ego’ which would then be the real agent of the performance. Theories which defend the existence of a bodily ego claim that, whether or not we allow for a transcendental ego, a metaphysical ego, a non-bodily self or a person, we should allow for a bodily self or ego. If there is a bodily ego, it might seem plausible to attribute to it some of the movements described above. However, both the homunculus character of my theory and the attribution of a self to the body are problematic. In this section I will evaluate the accusation that my view is a homunculus view and the possible solution which involves introducing a bodily self.

First, I am going to discuss whether my explanation of action requires the kind of bodily identity and unity provided by a *bodily ego*. Explanations which use the concept of bodily ego are infrequent. An exception is the interpretation of the work of Sigmund Freud by Richard Wollheim (1982). Wollheim argues that the

explanation of some mental phenomena to which Freud refers require a bodily identity. For instance, the explanation of what Freud calls ‘proto-beliefs’ requires that these proto-beliefs represent themselves as something which is part of the body and not of the subject’s identity:

(...) finding something good for us [a proto-belief] incites us to maintain it before the mind, finding something bad for us incites us to expunge it from mind, and in neither case is the question of any match or mismatch between the thing found good or bad and the world paid heed to. With proto-belief there is, as Freud puts it, no ‘reality testing’. (...) So how could we accept or reject a thought, as we are alleged to do in the case of proto-belief, and yet take no interest in its truth-value? It is of this that Freud offers an explanation, and he does so by reference to the way in which the thought represents itself. It represents itself as something corporeal: or, more specifically, either as something that can be brought into the body and made part of it, or as something that starts off as a part of the body and can then be pushed out of it. (Wollheim 1982: 130)

The corporality of proto-beliefs explains the fact that with them there is no reality-testing.

Some similarities exist between the explanation of this aspect of proto-beliefs and one way of explaining self-deception. In self-deception, a person seems to acquire and maintain some false belief, although she is aware of evidence to the contrary. A strategy employed to explain self-deception is the division of the self into two psychological parts that play the role of the deceiver and deceived respectively. In contrast to the explanation mentioned of proto-beliefs, in self-deception, the kind of self who does not test her beliefs against reality is not usually described as a bodily self. A first impression about these kinds of explanation is that they increase the number of selves or egos in a way which seem to be completely *ad hoc*: each one of the views mentioned introduces a different kind of ego which reacts in an exceptional way to explain whatever should be explained. For this reason, an external justification for every one of the different egos proposed is really required. Based on the corporeality of the subject who suffers from these Freudian phenomena, Wollheim offers some external support for the existence of the bodily ego:

This result is independently assured, and that is because how mental states are represented or self-represented is not a piece-meal issue but is determined on the level of overall psychic organization. Corporeality of representation reflects a mode of psychic organization (...). (Wollheim 1982: 133)<sup>51</sup>

Wollheim's analysis of what Freud calls 'introjection' also introduces a bodily ego. Introjection is the process where the subject replicates in herself behaviours, attributes or other aspects of the surrounding world, especially of other subjects.

For once the external figure has been (as he experiences it) brought inside him, the subject (...) must believe that the incorporated figure will remain inside him. And a way of doing this that suggests itself is that the subject should experience the dispositional phantasy as a corporeal process of containing the figure in the very place where he is phantasized as being: that is, inside the subject's body. (Wollheim 1982: 133)

Wollheim argues that to replicate in oneself aspects of the surrounding world, a bodily identity which explains the container of what it is replicated is required.

Does my explanation of passive actions also require this kind of bodily self? At a first sight and because of the following reasons, this seems to be the case. This would provide an answer to the accusation that the view is guilty of the homunculus fallacy.

One way of describing passive actions employed above is to say that they are a performance *observed* by the subject. This description seems to explain passive actions by referring to two egos: the ego who experiences her performance, and the ego who is performing it (the latter being an object of the experience of the former). My view seems to match this kind of description and introduces two processes: the movements resulting from the tendency of a body to move and the performance of the action by means of these movements. A way of developing this dual view attributes the agency of the movements to a bodily ego. In the performance of a passive action, the bodily ego would be both the agent of the performance and the

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<sup>51</sup> Philosophers who have discussed or endorsed the idea that within each subject there are two subjects, for example, two egos, include Husserl, Scheler, Nagel, and Fine (for a discussion on their positions, see Baldwin [2013]).



object of the experience of a transcendental ego, a metaphysical ego, or –less controversially, a person.

The existence of a bodily ego, one might think, complements other two-level explanations of action.

Steward and Hornsby, for instance, explain action as something composed of the dual engagement of the self both in the movements and in the performance of the action. I argued that their view fluctuates between the conceptualisation of the self as a disembodied and perhaps even transcendental self and its conceptualisation as an embodied self. Although, on the one hand, they characterise movements in an agential way by claiming that the self is engaged in the performance of the movements, on the other hand, they introduce a disembodied agent which explains other important aspects of the action which cannot be explained by means of a self which has embodied properties, for instance, the determination of the action to be performed. I argued that the two engagements of the self were not compatible. A possible option would be to claim that the ego involved in what they call ‘the engagement of the subject with her movements’ is not an engagement of the self, but the attribution of movements to a bodily ego, while the performance of the action would be attributed to a distinct subject, a transcendental ego or person. This way of presenting their view is rather different from what they explicitly claim since they refer only to one type of self. However, developed in this way, their views would overcome the internal tensions mentioned and, furthermore, might be capable of explaining passive actions. This was a problem for their views since the engagement of a transcendental ego or person with the movements could not be presented as a passive engagement.

Other two-level theories of action which might benefit from the introduction of a kind of identity or self different from the persons or transcendental ego are the ones presented by Harry F. Frankfurt (1988, 1999, 2008) and David Velleman (1989, 1992, 2000a, 2000b). Their views place the role of the agent on a high rational level. According to Frankfurt, when performing an action, the subject *rationaly* endorses some of the elements which guide the behaviour. This view has its origin in his notion of *person* (Frankfurt 1971) according to which a person’s autonomy requires the exercise of second-order capacities. A *person* is opposed to a *wanton*: whilst a wanton

only answers to first-order desires, a person has a desire for one of her desires to become effective. An important problem with this picture of action is that it does not explain the relation that the subject has to her non-autonomous performances. The concept of performing an action is wider than the concept of performing an act autonomously. Even if autonomous action is characterised by second-order states, first-order performances are performances and some kind of agency should be attributed to them. In this sense, Frankfurt's view has an unintuitive and too intellectualist character which does not fit action in general.<sup>52</sup>

The performances by a wanton might also involve a kind of agent, different from the person. To the extent to which first-order desires have a bodily character, it could be argued that the ego introduced is a bodily ego.

As I have indicated, the view that bodies behave as subjects is open to the accusation that it commits the homunculus fallacy. However, even if positing a bodily ego allows one to reply to the accusation and might solve the problems of some views, the price of introducing it is high. On the one hand, its introduction belongs to a kind of strategy which consists in finding a kind of ego for *each apparent tension* between the view that each subject is merely one person or ego and phenomena apparently incompatible with this view, such as self-deception. This strategy might easily lead to the multiplication of egos. It is important, for this reason, that there is the external argumentation that Wollheim suggests for the bodily ego and which does not seem to be present for other kinds of non-transcendental egos or for the person: a bodily ego could be grounded on the corporality of human action. Another external argument might be the fact that a distinction between a transcendental and a bodily ego makes sense of some important distinctions, such as the distinction between desiring and willing (the former being a property of a bodily ego and the latter of a transcendental ego). However, even if the possible non-transcendental egos are

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<sup>52</sup> This intellectualist character is pointed out, for instance, by Hornsby:

Life would be tough if pursuing second-order reflexive policies were the only option for a genuinely ethical agent. Pursuing them would be cognitively taxing and interfere with exercising more ordinary capacities – capacities to react appropriately to the particularities of the various situations in which one may find oneself. (Hornsby 2004: 15)

reduced to only one ego, one may well think that both the transcendental and the bodily ego are philosophical myths.

For this reason, although there are good reasons to complement my view by introducing a bodily ego there are also reasons to search for an alternative explanation of what the bodily ego manages to explain. One might wonder at this point, whether my view is really a homunculus view. On the view I have proposed, the bodily ego does not determine the kind of action to be performed and the way in which this action is performed (the movements to be performed). These aspects are determined by the tendency of a body to move and the body image of the movements open to a subject in a concrete situation. The role of the bodily ego is to be the bearer of the performance of the movements. I am not sure, however, that this is sufficient to justify characterising my view as a homunculus view. The attribution of the movements to the body can be explained by means of a transcendental self which knows it is or has an embodied self. The attribution of a self to the body does not seem to be justified by the existence of a body with properties but by the existence of tensions between the properties of the body and those of the agent. This is what happens in the case of proto-belief, of self-deception and of the views about action put forward by Hornsby and Steward, in which the properties of the body and of the agent were in conflict. In my view, there is not this kind of tension. The body of the subject moves since it has a tendency to move. This property of the body does not seem to require a bodily identity or ego. Thus the description of passive actions as merely a performance observed by the subject does not seem appropriate and should be given up. A similar and less problematic description would be that the subject observes their body moving in order to perform an action. In this description, no bodily ego is introduced. If the movements of an action are attributed to the body causally answering or responding to something which is not a will, this view does not require a bodily self. This way of explaining passive actions does not invoke any bodily self but representations of the properties of the body. What seem to be two selves, the self who performs the action and the self who observes this performance, would be the subject who observes her body moving in order to perform actions.

It is therefore possible to claim that movements are represented as the result of the tendency of a body to move which is a property of the body. The mental state

associated with the performance of the action would attribute, via the compositionality of the mental state, the movements to the body, and the body would be represented as the body of the subject without this representation involving the identity of the body as a body. I think, indeed, that one of the positive aspects of my view is that movements can be represented as a property of the body which determines the movements to be performed without the need to introduce the bodily self. Whether the representationalist framework itself belongs to a fallacious picture (I introduced in the Ch. 1 some views which claim that it fails) would require a wider discussion about the representationalist way of explaining the mind than is possible here.



## *Conclusions*

This dissertation places passive actions at the heart of our capacity to act. Passive actions are those actions which the subject experiences as something which *happens to her*. Although most actions are accompanied by this passive experience, the explanation of passive actions is in tension with important intuitions about what it is to act. Actions are what a subject performs, and performing something is opposed, normally, to mere happenings. The experience of passivity which characterises passive actions seems thus to threaten what is essential to acts, the fact that *the subject performs* an action. In order to explain passive actions, can acting be explained as something which happens to the subject? Can an action be, at the same time, something performed by the subject and something which happens to her?

In chapters 1 and 2 I presented two different strategies to explain passive actions. One strategy considers that being performed by a subject is not incompatible with a passive generation of action. Bach, Searle and Pacherie modify standard theories of action, according to which the subject who intends an action causes it, by substituting for this subject a representation of bodily movements which cause actions. But, in order to explain passive actions, this representation is in the end merely various motor specifications which, although a passive mechanism, are insufficient to explain the fact that passive actions are, after all, actions. Any other element introduced by these authors to explain bodily movement as an action finally introduces the subject who performs an action (in some of the possible ways of characterising it) as the cause of the action. In addition, this motor representation does not finally manage to explain the experience of passivity.

A second strategy considers that so-called ‘passive actions’ result from a process different from the process which results in actions. Clark proposes that a visuomotor

neural system results in bodily movements which are an action and which the subject experiences passively. His view explains the experience of passivity by appealing to the fact that the result of a subpersonal mechanism is experienced as something which happens to the subject. However, Clark accepts that this explanation of action is insufficient and needs to be supplemented by introducing a conscious determination of the action by a conscious subject. But this introduction rules out an explanation of passive actions. In the end action is explained by means of a conscious subject's performing the action.

Although only the first strategy claims to be compatible with the standard theory of action, Clark's view and the first strategy have important points in common. For both of them, the explanation of the experience of passivity is grounded in the supposition that a subpersonal process is experienced as something which happens to the subject. This kind of explanation is, however, insufficient to explain the fact that the result of a process of this kind is, nevertheless, an action.

In line with the second strategy, I also explored Dreyfus' view which introduces a process of generation of active bodily movements different from the process which results in actions. He does not present a subpersonal process but a basic relation between the environment and the subject which results in the body actively moving. On the one hand, since this relation is not grounded in the subject's will, desire or in her intending to perform an action (or something analogous), it can explain the experience of passivity; on the other hand, and since it explains these movements by means of a basic relation which results in activity, it avoids the problem of the insufficiency of mere motor specifications. However, because of the theoretical framework Dreyfus uses, which relies on the existence of affordances, his model only explains *environmentally-driven* actions. Passivity, by contrast, also characterises non-environmentally-driven actions, in which no perception of an affordance can be supposed, for instance, expertly playing an instrument. Dreyfus' model has also problems when it comes to taking into account the subject who controls and can modify the action, since, on Dreyfus' view, action is only the result of a causal relation between the perception of possible movements and the related bodily movement. This view was, however, useful for my view since it pointed to a strategy to explain passivity: the introduction of a basic mechanism which results in a passive

action. Is it possible to develop a view of this kind in a non-environmentally-driven way and to introduce the possibility of controlling and modify the action? My final proposal goes in this direction. My view locates this basic process only in the subject and not in her relation with the environment.

In chapter 3, I explored a possible relation between passive actions and basic actions. My proposal to explain basic actions is that they are the movements by means of which nonbasic actions are performed. These movements are goal-directed movements. For instance the action of writing my name is performed by, among others, the movements involved in writing the letter 'a'. These movements are basic actions and the process which results in them (sometimes identified with the knowledge of how to perform an action) can be presented as a passive mechanism to the extent that it does not directly involve the subject's will, desires or intentions. My hypothesis is that this mechanism explains the passivity of passive actions. I observed that, while most examples of basic actions normally happen in the context of a nonbasic action, most passive actions should be theorised as independent of the performance of a nonbasic action. This kind of explanation of passive actions requires, consequently, an explanation of active bodily movement, the basic actions, outside the context of the performance of an action.

In chapter 4 I explored two different ways of providing this explanation of bodily movement, the subpersonal view of Bargh and the agential one of Hornsby and Steward. After finding again, in Bargh, the problem of the insufficiency of a subpersonal view and some internal tensions in the particular engagement of the self by means of which Hornsby and Steward try to explain bodily movement, I finally proposed, in chapter 5, that these movements are the result of a basic bodily tendency of a body to move.

The manifestation of the tendency of a body to move are goal-directed bodily movements (these movements determine a potential action which, when actualized, is the action that the subject finally performs). However, the subject does not perform these movements. Movements are a performance of the subject only in so far as they are the result of the bodily tendency to move. Since this tendency results in bodily movement without the subject's will or the subject intending to perform the action, this view allows us to explain the experience of passivity.



Apart from explaining the experience of passivity, this kind of explanation, which frees the explanation of action from the introduction of the subject's will, offers an explanation of kinds of action which are difficult to explain for other views.

Here are the main traits of the tendency of a body to move and the kinds of action that these traits explain which have been introduced in this thesis.

Traits of the tendency of a body to move	
- It is a passive mechanism	PASSIVE ACTIONS
- The pattern of movements might be determined by an intention to perform an action	INTENTIONAL ACTIONS
- The body might not move according to the pattern of movements determined by an intention to perform an action	WEAKNESS OF THE WILL
- The pattern of movements might be determined by the performance of another action	SEQUENTIAL ACTIVITY
- Possibility of learning complex patterns of movements	SKILLED ACTIONS
- The pattern of movements might be determined by perception	ENVIRONMENTAL-DRIVEN ACTIONS
- The pattern of movements might be determined by an emotion	EMOTIONAL ACTIONS
- No instrumentality of action to the will + Possible pleasure resulting from a fluid performance + Pattern of movements determined by the pleasure associated to the anticipation of the performance of an action	AUTOTELIC ACTIONS

By taking into account the kinds of body image, the different kinds of patterns of movements and the different causes of these patterns of movements, the view presented here might easily accommodate the existence of actions of different kinds. This is an important argument in favour of the view. By contrast, the view presented seems to be limited to bodily actions since it grounds action in basic agential movements. My proposal involves thus the hypothesis that mental actions and omissions (if omissions are not bodily actions) either are not actions or are not actions in the same sense in which bodily actions are. My thesis does not deal with the nature of these alleged actions. However, if the view presented in this dissertation is plausible, it provides arguments for a difference of some kind (partial or complete) between bodily actions and these other kinds of activity.

This kind of view in which action is based on a tendency of a body to move and not on mental states of the subject seems to threaten what seems to be an essential relation between action and rationality. However, although, in this view, the subject's will or her intention to perform an action is absent, it does not involve the claim that acting is detached from rationality. An important aspect of the explanation given is that how the body move (*which* movements result from the tendency of a body to move) are partially determined by a body image which represents the movements open to a subject in front of a situational cue and in relation to the activity performed. Although maybe not all, most of the patterns of movements determined by this body image are the result of learning processes which might assure the correctness of the movements in this situation. Thanks to this body image, this view presents a rational picture of action: most of the movements that the body image presents are the movements that a subject would have reasons to perform in a given situation. Although this view does not thus ignore the relation between rationality and action, it does not claim that actions are rational since they are caused by the subject having reasons to perform them (as Davidsonian views hold). According to the view presented in this dissertation, only some actions are (partially) caused by the subject having reasons to perform them. In these actions, the tendency of a body to move selects the pattern of movements related to a motivating state. These motivating states are not sufficient to

trigger bodily movement since the effective cause of these actions is the tendency of a body to move selecting the pattern of movements associated to it.

I have , finally, proposed that the movements which result from the tendency of a body to move are potential actions. These potential actions can be actualised by a process which, in some situations, which I detail in Ch. 5, result in a passive performance and, in other situations also detailed in Ch. 5, in an active one. In the passive one, the conscious subject accesses her actions as an observer of them, and in the active action, she becomes its agent. Being the observer or the agent does not affect the nature of the action as action, since what determines that it is an action is the fact that the movements of this action are the manifestation of the tendency of a body to move.

My hope is that other aspects of the present view which are still underdeveloped are not essential to it and that they only require technical development. Among these aspects is the active actualisation of a potential action. The characterisation of this actualisation is explained in less detail than the passive actualisation. How should the active agent be characterised? What is it to actualise a potential action in the active way? Can this phenomenon be reduced to attention? The fact, discussed in Ch. 3, that goal-directed movements are potential actions is also not analysed in detail. I think, however, that the different possible answers to these questions are compatible with the introduction of the tendency of a body to move and the explanation of passive actions that it provides.

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