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My Body is the Subject's Body. In Defence of Experientialism about the Sense of Bodily Ownership

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In Defence of Experientialism about the Sense of Bodily Ownership

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Ph.D. Dissertation

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En memòria del meu avi, Ramon Balius i Juli

Als meus pares i al Pol

Abstract

In this dissertation the feasibility of Experientialism about the sense of bodily ownership (SBO) is explored and defended. An original experientialist proposal on the SBO is presented. On this view, for a subject to have a SBO is for her to be aware of (A) the experience-dependency of the properties involved in the content of somatosensory experiences; and (B) the relevant experiences as being her own. Clause (B) of the view requires acknowledging the existence of a sense of experience ownership (SEO). In the first half of the dissertation (Chapter 1 and Chapter 2) I argue for the plausibility of this sort of approach by motivating the idea that there are explanatory relations between the SBO and the SEO, and criticising some rival views on the SBO. In the second half of the thesis (Chapter 3 and Chapter 4) I substantiate and defend my proposal.

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[*] "the delicate seam of skin that sets us apart from stones". Extracted from the prose poem *Amforismes*, included in Cabrera (2017). Thanks to Mary Ann Newman for her suggested translation.

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* * *

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Contents

Introduction

We consciously perceive a myriad of things. The façades of buildings around us; the clatter of the subway in motion; the taste of coffee in the morning; a tickly throat when the plane trees spread their seeds in spring. Among all the things we perceive, there is only one of which philosophers agree to say that we perceive it *from the inside*: our own body.

Indeed, for each of us, and for all the objects we have conscious experiences of, there is one body that is significant to us in a way in which no other object is. Descartes said that he called this one body "mine" *by some special right*.[1] It has been a major philosophical issue across the centuries to figure out what this special right exactly is. Plausibly, it breaks into several elements. For instance, the body is the origin of our viewpoint on the world. It is also the *organ of the will*:[2] the object we can directly move and control, and with which we can perform actions and manipulate the environment. It is the object that matters the most for our survival – at least, the object whose corruption affects us most directly. And it is, as well, an object we seem to have a special perceptual relationship with – one intendedly captured by the expression *from the inside*. But what is it exactly to feel the body from the inside? And most importantly: in what sense and to what extent feeling the body in this way legitimises our *calling it "mine"*?

This dissertation is an inquiry into these questions. Note that, if walking down the street I randomly entered one of the blocks around me, there would be a sense in which I would then get to visually perceive the building from the inside. But nothing in this perceptual experience of the building would grant me a right of any sort to call the building *mine*, just as contemplating its façade from the outside doesn't by itself grant me this right either. This contrast suggests the following: what we intend to capture when we describe our awareness of the body as an awareness of it from the inside differs from anything we tend to say about worldly objects and space, and about our relationship with them. The expression captures a peculiar type of experience, reserved to experiences of the body, that links this one object to ourselves in a singularly intimate way.

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[1] In his *Metaphysical Meditations* (Med. 6, AT 7:76). All the quotes from the *Metaphysical Meditations* in English are taken from Descartes (1996).
[2] As Husserl (1989, §38) eloquently called it.

Part of what we intend to capture with this expression was actually pointed at by Descartes himself in a very celebrated passage:

> Nature also teaches me, by these sensations of pain, hunger, thirst and so on, that I am not merely present in my body as a sailor is present in a ship, but that I am very closely joined and, as it were, intermingled with it, so that I and the body form a unit. If this were not so, I … would not feel pain when the body was hurt, but would perceive the damage … just as a sailor perceives by sight if anything in the ship is broken. (Med. 6, AT 7:81)

It is in virtue of his sensations of pain, hunger, or thirst, that Descartes learns that *he* is *intermingled* with his body. This is not something he could have learned on any grounds whatsoever, he points out: for instance, perceiving the damage in the body "as a sailor perceives by sight if anything in the ship is broken" would make for a remarkably different sort of experience of the body. In fact, when out into the open sea, Descartes' sailor will surely perceive the ship from the inside in some sense. In particular, in a sense similar to that in which I will see the building from the inside if I cross the threshold. But bodily sensations[3] are somewhat different. They have a phenomenology that conveys the properties of an object, namely the body, in a way that allows Descartes to claim that "*I* and the body form a unity".

This peculiar perceptual relationship with our body is arguably part of what shapes philosophical discussions on the metaphysics of selves, as well as on personal identity. Does this relationship constitute a reason to think that we *are* our bodies? Or are we simply *in* our bodies, even if not exactly as a sailor is in a ship? And so, is it in virtue of our body's persistence that we endure in time? This thesis does not touch upon metaphysical questions of this sort, however. Rather, my concern is restricted to the phenomenology: is there really anything about my experience of the body in bodily sensations that reveals me the body *as mine*? And if so, what about it?

In the last few years, there has been a very lively debate around the latter questions in the philosophical literature. Philosophers working in the intersection between the philosophy of mind and the philosophy of cognitive sciences have quite consistently adopted the expression *sense of bodily ownership* to name the subject matter of this debate. Other expressions such as

[3] Throughout this dissertation I will use "bodily experiences" and "bodily sensations" interchangeably. I will also use the term "somatosensation" and its derivatives to refer to bodily sensations in general.

phenomenology of ownership, *sense of mineness*, or *for-me-ness* are also used in this context, as well as in other discussions in the vicinity. In this dissertation I will stick to the first idiom. My aim is to contribute to the debate on the sense of bodily ownership, and to do so in various ways.

As often happens with philosophical discussions that, in their own terms, are relatively new, it is not entirely straightforward to see what is at stake in the debate about the sense of bodily ownership. There is thus some work to be done to clarify the terms of the discussion, and to elucidate what the disagreements in it actually are about. Chapter 1 in this dissertation is partly devoted to this. In Chapter 1, I propose a non question-begging definition of the sense of bodily ownership that allows to situate the different views on it as answers to a clear question. I distinguish the sense of bodily ownership from another phenomenon, which I call *sense of experience ownership*, to carefully see the differences, and most importantly the similarities, between the two of them. By doing this I highlight the fact that both notions are key pieces within the major philosophical matter of self-consciousness. I thereby motivate the idea that there might be deep explanatory relations between them.

Chapter 2 is a critical chapter. I address some views on the sense of bodily ownership available in the literature, and argue that they do not offer satisfactory accounts of the phenomenon at stake.

Finally, in Chapter 3 and Chapter 4 I present an original, positive proposal on the sense of bodily ownership. My view exploits the resources that the views addressed in Chapter 2 put forward in their respective analyses of bodily sensations. However, my proposal goes beyond the views criticised, by claiming that the sense of experience ownership is part of the explanation of the sense of bodily ownership. Hence, on my view it becomes clear what we gain by endorsing the independently motivated idea of there being explanatory relations between these two phenomena. The motivation and main substance of the view are presented in Chapter 3. In Chapter 4, I address some objections to it and underpin it by showing how it meets all our explanatory demands.

After this brief introduction, in the rest of this dissertation I will not resort to the expression *from the inside* anymore: from the point of view of the phenomenology, this expression is as evocative as it is limited. The class of bodily sensations includes very rich and varied types of phenomenologies: what it is like to have a headache is remarkably different from what it is like to

be hungry. And yet, as Descartes tells us, there is something that all bodily sensations seem to have in common. Saying that they all convey the body *from the inside* gives us a flavour of this phenomenal commonality. From this point of view, the expression is thus an effective placeholder for whatever this commonality might be, but it just leaves us at the door of a deeper phenomenological discussion. After giving an extensional definition of the class of bodily sensations in the first chapter, part of the point of this dissertation is to engage in this discussion. I will proceed on the conviction that spelling out how we actually experience our bodies when we have bodily sensations helps settle our worry: why knowing our bodies in this way is such an important part of our special right to call them *ours*.

Chapter 1

Senses of Ownership

The first chapter of this dissertation has both an introductory and a positive character. On the one hand, in this chapter I present the central topic of the thesis, establishing the basic terminology to be put into play in the rest of the dissertation as well as offering an outline of the state of the art relative to it. I thereby define the scope and goals of the present work. On the other hand, the main points contained in the pages to follow are, I think, philosophically significant by themselves, besides being argumentatively relevant in the context of the whole dissertation.

The positive claims I put forward in this chapter are summarised in the six points below. Some of the claims are *central*, because they concern the core topic of the dissertation; some others are *supplementary*, because they do not directly concern the core topic of the dissertation, but other issues that are relevant to it in ways to be defined. Some of the points I will make mainly have a *programmatic* character, namely they concern the structure and guidelines of a given debate in the literature; whereas others are *substantive*, in the sense that they are about the specific objects of study of the relevant debates. One of the points is *descriptive*, in that it is just the statement of a fact relevant to the overall project of this dissertation. Finally, this chapter makes a general *motivating* point, since it puts forward some of the reasons why the kind of view that I will defend in this dissertation seems prima facie plausible.

Briefly put, here are the main claims and objectives of this chapter:

(i) *Central Substantive Point*: I propose that there exists what I will call a *sense of bodily ownership* involved in bodily experiences. The sense of bodily ownership is the core topic of this dissertation. I will argue that there are three defining features to the sense of bodily ownership: the involvement of the first-person in it, the seeming compellingness of this involvement, and its empirical relevance. My ultimate goal in this dissertation is to present and defend an original view on the sense of bodily ownership (chapters 3 and 4).

(ii) *Central Programmatic Point*: I stress that the views that intend to account for the sense of bodily ownership aim at putting forward an answer to what I will call the *Constitutive Question*. Besides, I point out how the defining features of the phenomenon, mentioned in (i), dictate three desiderata that any such theory has to meet. I label these desiderata *Judgment Formation Goal*, *Intuitive Goal*, and *Empirical Goal*. This observation is central because these goals give the yardstick to the validity of views on the sense of bodily ownership. Views can be criticised on the grounds of not meeting the goals (as will be done in Chapter 2), and conversely, can be validated on the grounds of meeting them all. Notice that my own proposed view will therefore have to meet them if it is to succeed.

(iii) *Supplementary Substantive Point*: I claim that there exists what I will call a *sense of experience ownership*, typically involved in all conscious experiences. I will point out that the sense of experience ownership has the following core, philosophically significant features, which parallel mutatis mutandis those of the sense of bodily ownership: the first-person involvement in it, the seeming compellingness of this involvement, and its empirical relevance. This point is supplementary because I will not try to offer an account of the sense of experience ownership in this dissertation. However, the notion is relevant because it will play a role in my positive account of the sense of bodily ownership.

(iv) *Supplementary Programmatic Point*: I claim that the views aimed at accounting for the sense of experience ownership aim at answering what I will call the *Constitutive Question – E*. Besides, the defining features of the sense of experience ownership mentioned in (iii) dictate three goals for these views, which I will call *Judgment Formation Goal – E*, *Intuitive Goal – E*, and *Empirical Goal – E*. I therefore suggest that the inquiries into the sense of bodily ownership and the sense of experience ownership pursued in the literature are relevantly similar. This point is supplementary because it is formulated in the context of assessing a phenomenon that is itself supplementary in the dissertation.

(v) *Descriptive Point*: I will underline what I take to be a fact relevant to the notions of a sense of bodily ownership and a sense of experience ownership, and more generally to the project of offering

an account of the former. The fact is that the sense of bodily ownership and the sense of experience ownership co-occur in bodily experiences. Besides, and importantly, I will motivate the idea that the co-occurrence of these two phenomena in bodily experiences is not a *mere* co-occurrence.

(vi) *Motivating Point*: I will point out that the previous claims, jointly considered – specially (i), (iii), and (v) –, constitute part of the motivation for the kind of view that I will defend in this dissertation.[4] In particular, I take these points to make plausible the idea that there are explanatory relations between the sense of bodily ownership and the sense of experience ownership.[5]

1. 1. The Sense of Bodily Ownership (SBO)

If I now close my eyes and pay attention to my body, I would say my legs are crossed and my hands are resting on the keyboard in front of me. I would also report, if asked to, some mild, intermittent twinges in the right side of my lower back. I would thus be reporting some of my current bodily experiences.

Upon scrutiny, it is clear that by entertaining judgments such as "I can feel that my legs are crossed" I am taking myself to be the subject of a mental state – just as I do when I say, for instance, "I am thinking of you" –, but also the subject of the body to which I am ascribing certain properties. Evidence of this are the two first-person pronouns in the relevant statement just mentioned. Indeed, eyes closed, not only do I realise that it is me who feels some legs being crossed or an aching back, but also that these crossed legs and aching back are mine.

This dissertation focuses on bodily sensations, namely the class of phenomenally conscious mental states that includes the following experiences: proprioception (experiences of bodily posture through the detection of muscle length and tension, and joint pressure and angle), kinaesthesia (experiences of limb movement), sensations related to balance,[6] touch, feelings of bodily

[4] The rest of the motivation for the view will be the failure of alternative accounts.

[5] With a different terminology, Billon (2017b) also suggests that there are such explanatory relations. Bermúdez (2018a, 2018b) follows up on this suggestion by defending that there is an *interdependence* between the two phenomena. As I will make clear in chapters 3 and 4, and will start to motivate already in the present chapter, my specific suggestion will be that the sense of bodily ownership depends on the sense of experience ownership. I am thus not committed to the claim that the sense of experience ownership depends on the sense of bodily ownership.

[6] The vestibular system, the complex of balance organs in the inner ear, performs highly

temperature, pain, and interoception (sensations relative to general homeostasis, such as hunger or thirst, and sensations of internal organs). In particular, this dissertation revolves around the following fact: bodily experiences are mental states typically suitable to be reported in judgments that are de se in that subjects endowed with a conceptual system or language express them by qualifying the felt body with a first-person indexical. For instance, eyes closed, I do not simply report feeling *a* back in pain. I report feeling that the painful back is *mine*.

Let us call judgments in which bodily experiences are reported, such as "I can feel that my legs are crossed" or "I have a pain on the right side of my lower back", *judgments of somatosensation*.[7] And let us grant that, when one sincerely asserts[8] judgments of somatosensation that are first-personal in that they involve a first-person pronoun qualifying the felt body – or could involve it and still count as accurate reports of the relevant experiences –, one expresses awareness of the body one feels as being one's own. The notion of a *sense of bodily ownership* (SBO) captures this fact. To put it straightforwardly:

> [*SBO*]: for one to have a sense of bodily ownership is for one to be aware of the body one feels in bodily experience as being one's own.

Two notes about the notion of *awareness* in [*SBO*] are required. Firstly, it is non-factive. The phenomenon described in [*SBO*] is different, and presumably independent, from whether the body one feels in a given situation is actually one's own according to the relevant metaphysical considerations regarding which body counts as each subject's. In particular, consider a body B and a subject S, and suppose that S feels B somatosensorily at t, and judges B to be her own body at t. [*SBO*] is compatible with the claim that B is actually not S's body at t, metaphysically speaking. For instance, the SBO is conceivably involved in crossed wire cases, namely thought experiments in which a subject is wired up to what, by other criteria, we would take to be someone else's

convergent and multimodal processing. It is sometimes assumed that it is phenomenologically "silent", since most conditions that activate it also activate other sensors such as proprioceptors and tactile receptors (e.g. Day & Fitzpatrick, 2005, R583; but see Wong, 2017). Remaining non-committal on the discussion about the specificity of a phenomenology of balance, here I mean to include all those sensations connected with being in and out of balance, such as vertigo, dizziness, or the sensation of spinning around.

[7] I will sometimes use "judgments of ownership" instead, for reasons that will become immediately clear.

[8] The notion of asserting here is to be understood broadly, encompassing both avowals and introspective judgments.

body, and has experiences caused by it – experiences that are subjectively indistinguishable from ordinary episodes of somatosensation caused by what would typically count as her own body. Furthermore, the SBO is also present in cases in which subjects feel as their own an inexistent body (part), as it is usually the case in phantom limb experiences.

Secondly, the notion of awareness at stake in [*SBO*] is the most neutral possible, namely one we can assume is involved in any sincere judgment, and thus in particular in judgments intended as reports of bodily experiences. In this sense, a speaker manifests *awareness* of the body she feels *as being her own* to the extent that she reports that she takes this body to be her own by tokening the first-person pronoun in the content position when reporting her bodily sensations. Correspondingly, a subject *is aware* of the body she feels *as being her own* to the extent that she would report her bodily experience via statements of the mentioned sort. I will henceforth assume that there is such a thing as being aware of the body one feels as being one's own, that is, that there is such a thing as a SBO. Given the notion of awareness at stake in [*SBO*], this assumption should be found uncontroversial.

Having laid out [*SBO*] and the relevant caveats, a question emerges that provides the backbone of the debate in which this dissertation takes part: what is the nature of the awareness involved in being aware of the body one feels in bodily experience as being one's own? Let us call this question the *Constitutive Question*. Several authors in the philosophical literature have attempted to offer accounts of the SBO. Offering an account of the SBO means offering an answer to the Constitutive Question. The final aim of this dissertation is to put forward an original view on the SBO, and hence to answer this question.

In the next section I draw the map of the several views on this phenomenon already available in the literature. Afterwards, in section 1.3, I put forward a set of desiderata that, I shall argue, any satisfactory view on the SBO should meet. These desiderata emerge from taking into account the defining features of the phenomenon under consideration.

1. 2. Landscape of Views on the SBO

There are two broad lines of reply to the Constitutive Question in the literature. On the one hand, one could claim that subjects are aware of the body they feel in bodily experiences as being their own only if they judge that that body is their own (Alsmith, 2015; Wu, forthcoming). This seems to

assume that the SBO consists, maybe only partly but crucially, of judgments involving a relative of the I-concept – or of the exercise of capacities related to judgment formation, and in particular to the formation of judgments of somatosensation –, hence going beyond anything in the content of bodily experiences themselves. This view is thus *compatible* with the idea that bodily experiences involve no specific component that stands for the first-person figuring in judgment – being, so to speak, selfless (Chadha, 2018).

Let us label the accounts along these lines *Judgmentalist Accounts*. Notice that Judgmentalist Accounts are also compatible with there being some phenomenology specifically attached to the SBO – that is, one derived from making the relevant judgment, and so maybe one of a cognitive kind (Alsmith, 2015, 884). While such phenomenology could then be said to be part of what the SBO consists of, it would not be part of the epistemic basis for judgments of ownership, but rather just some byproduct of them. A consequence of Judgmentalist Accounts is that creatures that do not have the relevant judgment related capacities do not enjoy a SBO – even if they have experiences otherwise identical to those that would yield judgments of ownership, and hence a SBO, in creatures with the relevant conceptual capacities.

However, the Constitutive Question could plausibly be answered in the opposite sense. One can defend that there are *experiences* of bodily ownership that are independent of cognitive acts of bodily self-attribution (ibid., 883). Let us call the accounts within this trend *Experientialist Accounts*. These views assume that there is some component of bodily experiences themselves that stands for the first-person that eventually figures in judgment. On these views, the SBO consists of a certain aspect of what it is like to undergo bodily experiences, and therefore the epistemic basis for judgments of somatosensation that are de se in the way now relevant will involve a first-person element.[9]

Given the phenomenal richness of bodily experiences, this element could be specified in several ways. As the discussion has been set, it is natural to say that bodily experiences are mental states that convey something to the

[9] Although the twofold divide of views sketched here is partly based on Alsmith's (2015), I have opted for a change in the terminology. Alsmith calls his own account "Cognitive", and labels the accounts in the opposite strand of the debate "Phenomenal". In this dissertation I use "Experientialist" instead of "Phenomenal" – thereby avoiding the suggestion that, on the views under this label, the SBO is related to the strictly *phenomenal* properties of somatosensory experiences as opposed to their *representational* content. In turn, I use "Judgmentalist" instead of "Cognitive" – avoiding the opposition *cognitive/experiential*, and thereby remaining neutral on whether cognitive states qualify as experiences.

experiencing subject: eyes closed, I report that my legs are in this or that position, or that there is painfulness in my lower back. More specifically, by undergoing bodily experiences, subjects are typically aware of the state and condition of a body. In this sense, bodily experiences are mental states with content. This content can be spelled out minimally in terms of properties or qualities (Position, Movement, and the like) that seemingly qualify the body or some of its parts. On these grounds, this content is generally said to have both a qualitative and a spatial dimension.[10] In this dissertation I take for granted from the outset this general assumption about the content of bodily experiences, which will be unpacked as the dissertation unfolds.[11]

Experientialist Accounts divide according to the role they assign to these dimensions of bodily experiences in accounting for the SBO. For one thing, a distinction has been traced between *deflationary* and *inflationary* views (Bermúdez, 2011; Bermúdez, 2015). Deflationism defends that the component of bodily sensations that constitutes the SBO is not "a positive quality over and above the felt quality of sensation and the location" (Martin, 1995: 270). The sense that the felt body is one's own is then spelled out in terms of how space is represented in bodily experiences (Martin, 1995; de Vignemont, 2007; Bermúdez, 2017); or of the kind of sensory qualities, which in principle track the relevant bodily events, that one feels when undergoing them (Dokic, 2003). I call these views *Spatial Deflationism* and *Property Deflationism* respectively.

This trend crucially distances itself from *Inflationism* – and in particular from what we could call *Pure Inflationism*. Bodily sensations, Pure Inflationism would maintain, do involve a dedicated mineness quale, irreducible to any of their other aspects (de Vignemont, 2013; Billon, 2017b). From this perspective, the awareness involved in bodily experiences that the felt body is one's own consists of this specific quale. On this view, then, the first-person has the status of a primitive. Somewhere between Deflationism and Pure Inflationism, some authors enrich the phenomenology of bodily experiences and specify the SBO in terms of their affective character (de Vignemont, 2017, 2018; forthcoming); their agentive dimension (Peacocke, 2017); or an intrinsic, pre-

[10] Ordinarily, we might say of *sensations*, rather than of the *properties* they convey, that they are felt as localised somewhere in the body. This arguably reveals something about the nature of these properties (see e.g. Brewer, 1995). But I must leave this discussion for Chapter 3. On occasion, I will talk interchangeably of bodily sensations and bodily properties as localised, not meaning to entail that the former qua mental states are physically located, nor experienced as such.

[11] If the assumption that all sensations are localised is found controversial, see the discussion in Chapter 4, section 4.1.2 ("On Non-Localised Sensations").

reflective self-consciousness involved in all such components (Gallagher, 2017[12]).[13]

Notice that it is in principle compatible with Experientialist Accounts that creatures that do not entertain conceptually articulated judgments of ownership, or do not have the capacity to do so, have a SBO. If we spell out the SBO in terms of aspects of experiences, then in principle the only requirement for creatures to enjoy a SBO is that they have experiences of the relevant sort. This is of course dialectically relevant at this point to the extent that one assumes and operates with a notion of experience on which experiential contents are judgment or concept independent.[14]

Throughout the several chapters of this dissertation, the feasibility of a fully Experientialist Account on the SBO is explored and defended. In particular, I examine the prospects of accounting for the SBO by exploiting the minimal set of elements postulated as part of the contents of somatosensory experiences: that is, the *properties* felt as instantiated in a *location*. The aim of this dissertation is to defend this possibility. However, I will make the case for the claim that, in order to do so, we need to appeal to a further element of our phenomenal lives, beyond those appealed to by the deflationist positions available in the literature. This element is the *sense of experience ownership*. I introduce the sense of experience ownership, and motivate the suitability of appealing to it in an inquiry into bodily self-awareness, after defining the basic goals for views on the SBO in the next section.

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[12] In his account of the SBO, Gallagher follows the classical phenomenological tradition in using the notion of pre-reflective self-consciousness. To avoid possible misunderstandings at this point, notice that in this tradition the very same notion is resorted to when accounting for what I will call "sense of experience ownership".

[13] Billon (2017b) describes these views as versions of Inflationism, although different from what I have called "Pure Inflationism". This is because these views are still somehow "mineness friendly", since what they do still is substantiating the nature of the first-person quale in independent terms. Another way of making the same point is by saying that these authors *reduce* the first-person component to other phenomenally salient aspects of bodily experiences.

[14] Experientialists rarely make explicit, in their writings about the SBO, the assumption that the content of bodily experiences is nonconceptual (an exception being Peacocke, 2017). However, it does not seem far-fetched to attribute them this assumption. On the one hand, because some argue for these kind of contents of bodily experiences in other parts of their work (see e.g. Bermúdez, 1998, Chapter 6; Gallagher and Zahavi, 2008, 161). On the other hand, because endorsing conceptualism about bodily experiences collapses, in the context of our debate, into Judgmentalist Accounts on the SBO. In this dissertation I will be assuming that the contents of somatosensory experiences are nonconceptual, but I will not arguing for it.

1.3. SBO: Basic Features and Goals for Views

Surely, the outline of views just presented is to be framed within the context of acknowledging that there is such a thing as being aware of the body one feels as being one's own. On this assumption, we wonder about the nature of this awareness. Any proper answer to the Constitutive Question will arguably imply a picture of bodily sensations, namely a specification of what their content is and what it is like to undergo them. [*SBO*], together with the foregoing considerations on the notion of awareness at stake, already suggest a basic desideratum that we should impose on this picture: it must offer, or allow for, an explanation of the first-personal character of all judgments aimed at reporting bodily sensations that are de se in the sense indicated. Our inquiry thus pursues the following goal:

> [*Judgment Formation Goal*]: any account of the SBO must explain the fact that we self-attribute the felt body for all judgments of somatosensation in which we do so.

A preliminary aspect to notice about the formulation of this goal is the following: the specification of the type of judgments we are concerned with, namely judgments of somatosensation, is required, because there are judgments of bodily self-attribution that are not judgments of somatosensation. For instance, one might look at one's anaesthetised hand and claim "My hand is lying on the stretcher" *solely* on the grounds of her visual perception of the hand. Judgments like this one do not fall under the scope of the present discussion – they do not involve a SBO.[15]

The Judgment Formation Goal articulates the assumption that judgments of somatosensation in which the first-person features in the content position constitute our initial datum – something the existence of which all philosophers engaged in the debate on the SBO can agree on, and which deserves the status of an explanandum. It is precisely in the minimal sense of there being judgments of bodily self-attribution that we find the claim about the existence of the SBO straightforwardly uncontroversial. Also, it is from this standpoint that we can set the Constitutive Question without begging the question. Notice that, as it is formulated, the Judgment Formation Goal should be acceptable by so-called de se sceptics, for whom strictly speaking bodily

[15] The reason for this will become evident immediately, in the motivation of the second goal.

self-attributions are not grounded on anything first-personal intrinsic to the content of bodily experiences (Cappelen and Dever, 2013; Magidor, 2015). Likewise, judgmentalists in the abovementioned divide also can, and should, be committed to it.

With this in mind, note also that this goal now allows for a refinement of the twofold divide of views mentioned above: the difference between Experientialist and Judgmentalist Accounts mainly lies in that the former pick out a specific aspect of the phenomenology of bodily experiences to carry the explanatory and constitutive burdens with respect to the SBO, thus not focusing just on facts about the relevant cognitive acts. However, we now see that Judgmentalist Accounts should also ultimately be able to specify what the proper grounds for the relevant judgments are, that is, what the experiences that underlie judgments of ownership are like.[16]

With this first aim in view, the second desideratum that, I contend, all accounts of the SBO must meet is dictated by a central feature of the relation between bodily sensations and judgments of somatosensation. This feature illuminates a contrast between bodily sensations and external perception, when it comes to the types of judgments we ordinarily conceive of them as possibly yielding. To illustrate this, recall that Ernst Mach (1914) once got on an omnibus and had a visual perception of what seemed to him a shabby pedagogue at the other end. He then realised that he was actually looking in a mirror, subsequently thinking "I am a shabby pedagogue!". After the revelation, but not before, he was aware that the body he visually perceived was his own.

Surprising as revelations of this kind are in ordinary life, they seem in order. More generally put, several of our experiences beyond bodily sensations involve bodies as part of their content – for instance, visual experiences. Yet, this being the case, it does not seem specially problematic for a visual

[16] José Luis Bermúdez, who defines himself as a deflationist on the SBO (see e.g. Bermúdez, 2015, 38), describes Deflationism as accepting that there is a phenomenology of ownership, but also that the SBO consists "first, in certain facts about the phenomenology of bodily sensations and, second, *in certain fairly obvious judgments about the body* (which we can term judgments of ownership)" (2011, 162. My emphasis). Even if, in some versions, Experientialist Accounts assume that judgments of ownership are part of what it means to have a SBO, it is crucial to them that they do not eliminate, even if they deflate, the *experiential* awareness a subject has of her body *as her own*. In other words, it is crucial that they spell out the first-person that figures in judgments of somatosensation (i) in terms that describe bodily *experiences*, (ii) which may or may not be independent of the very notion of ownership (notice that Pure Inflationism assumes (i), while *not* spelling out the first-person in terms independent of the notion of ownership). In contrast, Judgmentalist Accounts are compatible with eliminativism with respect to the first-person in somatosensation.

experience to occur in which a body is represented but is not taken by the perceiver to be her own.[17] This happens ordinarily when we perceive the bodies of others, and situations in which the relevant experience does indeed represent our own body, such as Mach's, are also relatively common.

The case seems remarkably different for bodily sensations. In fact, in the philosophical literature on bodily awareness it has classically been contended that, whenever bodily experiences occur, they necessarily come with their subject's awareness that the body experienced is her own (e.g. O'Shaughnessy, 1989; Martin, 1995; Dokic, 2003). This points in the direction of claiming that something for which we now seem to have empirical evidence is impossible, or at least inconceivable. After lesions in their right parietal lobe, somatoparaphrenic patients have delusional beliefs about the contralesional side of their bodies according to which this side, or parts of it, do not belong to them (Vallar & Ronchi, 2009). Some such patients, however, are able to feel sensations in their "disowned" limbs. These patients undergo bodily experiences that have a body as their content, but they do not judge this body to be their own. These cases argue strongly for a nuanced formulation of the previous observation: there is a *seemingly necessary* link between the occurrence of bodily sensations and the involvement of the first-person in the content position in the experiencing subject's reports of them. In other words, at least our intuitions generally point in the direction of taking this link to be necessary.

It might be said that even this formulation is too concessive. After all, once somatoparaphrenia has become common knowledge in the literature, there is a sense of seeming in which it is no longer true that it *seems* to us that this necessary link exists.[18] I contend that there is still a sense in which this intuition of necessity is relevant, despite the challenge from somatoparaphrenia. In fact, it seems to lie at the heart of the specific philosophical interest that the SBO raises. Notice that another context in which a similar tension arises is the discussion on the relation between being phenomenally conscious and self-attributing the state of which one is conscious in this way. The apparent compellingness of this connection,

[17] An exception to this might be the awareness of one's bodily location based on the position of the apex of the visual field. This is not problematic for my point. At most it suggests, plausibly, that awareness of bodily location on the mentioned grounds involves complications similar to the ones discussed in the SBO debate.

[18] I am thankful to an anonymous referee of my paper "The Bounded Body. On the Sense of Bodily Ownership and the Experience of Space" (forthcoming) for pressing me on this point.

undoubtedly lying behind its philosophical import, also informs the work on the phenomenon of thought insertion, which arguably challenges it.[19] In parallel, bodily sensations happen to be relevant to philosophical discussions on self-consciousness in a sense that other mental states are not. I believe that this mirrors, at the theoretical level, a folk intuition: bodily sensations, unlike exteroceptive perception in general, seem to us to be about ourselves in a specially compelling way.[20] I suggest, speculatively, that it might actually be part of our folk concept of a bodily sensation that, on the one hand, it concerns our own body, and on the other hand, it correspondingly involves a SBO – thus being somehow unconceivable that an experience of this type occurs without it involving awareness that the felt body is our own.

This might well be based on *the fact* that, in normal circumstances, bodily sensations are indeed about ourselves, and correspondingly and more importantly in this context, that in normal circumstances we *do* take their contents to be our own bodies. In other words, the intuition might be grounded on the fact that bodily sensations, typically caused by the body of the subject who is having the experience, generally involve awareness, on the part of this subject, that the body she feels is indeed her own.

All in all, on the assumption that we want a theory on the SBO to fulfil the Judgment Formation Goal, it is crucial to the project of explaining what the SBO consists of that it accounts for a central feature of the relation between bodily experiences and judgments of somatosensation. Let me express it straightforwardly in terms of a second desideratum:

> [*Intuitive Goal*]: any account of the SBO must specify the SBO in terms that explain the seemingly necessary link that bodily experiences, but not

[19] See, e.g., Frith (1992), Campbell (2002a), and Gallagher (2015). I will elaborate on this in section 1.4.3 below.

[20] Some illusions of ownership such as the rubber hand illusion (Botvinik and Cohen, 1998; RHI henceforth), in which the self-attribution might be found compelling in the way indicated, are usually described as exteroceptively induced. This is not problematic: firstly, because here I am appealing to a general intuition of contrast between external perception and bodily experiences that may have exceptions in both directions. For instance, as acknowledged above (fn. 17), judgments about one's own body based on the position of the apex of the visual field might be such an exception – and arguably perspective plays a role in the RHI. Secondly, and most importantly, because the success of the RHI also depends on proprioceptive feedback. I will take up this issue immediately below.

exteroceptive experiences,[21] have with the awareness of the experienced body as one's own.

Just to clarify, this goal points out that whatever it is about bodily experiences that explains the awareness that they are about me, it will need to be sufficiently distinctive of them vis à vis external perception. The relevant feature, distinctive of bodily experiences, will hold the key to explaining why bodily sensations involve awareness of the felt body as one's own in normal circumstances. In turn, this will help make sense of the mentioned intuition of necessity.

These considerations evince the very tight connection existing between the Judgment Formation and Intuitive goals: they actually are two sides to the same coin. On the one hand, meeting the former will have an immediate bearing on the latter: an account of the SBO that meets the Judgment Formation Goal will confer the explanatory burden to a trait *typically* involved in having bodily experiences – since it is part of what we are assuming that these experiences *typically* yield judgments of ownership. Hence, it will immediately be one capable of meeting the Intuitive Goal. On the other hand, what the Intuitive Goal does is actually assuming and specifying the Judgment Formation Goal: it calls attention to the fact that the element that serves as an explanation for the first-personal component of judgments of somatosensation should be involved in bodily experiences in a way that allows to make sense of the seeming compellingness with which the latter yield the former.[22]

There is still one more goal for theories on the SBO, I contend. It should be noted that the notion of SBO concerns phenomena of an empirical nature. The third and last goal expresses the need for theories on the SBO to be extensionally adequate. Here is a straightforward formulation of the desideratum:

[*Empirical Goal*]: any account of the SBO must leave room for the specific, sometimes abnormal relations between bodily sensations and the

[21] Setting aside visual experiences of a body from a certain perspective, as mentioned above (fn. 17 and fn. 20).

[22] Notice that, hence, if a given view on the SBO specifies it in terms of an element involved in other experiences, and these experiences do not yield first-person judgments nor seem to do so, then this is a limitation of the view. Several of the critical arguments that I deploy in Chapter 2 against Deflationist Accounts consist in stressing this particular limitation.

awareness of the felt body as one's own we seem to have evidence for in some pathological and experimental cases.

The Empirical Goal arises from considering the vast array of empirical cases reported in the literature that are relevant to the discussion on the SBO. In particular, it indicates that a view on this phenomenon needs to take them into account. The relevant cases split into pathological conditions and observations made in experimental setups. Let me now briefly articulate a central case for each category in order to give a sense of the kind of difficulties that theories on the SBO might confront. Besides, I will also mention other important cases of each class.[23]

I already mentioned above the central pathology for discussions on the SBO, that is, somatoparaphrenia. Moro et al. (2004) report the case of two right-brain damaged patients who suffer from tactile extinction in their contralesional hand – namely unawareness of being touched in it, if touched simultaneously on their ipsilesional limb. Concomitantly, the patients deny ownership of the affected hand. Relying on studies on the influences of spatial disposition of the affected limb on tactile detection, Moro et al. show that extinction phenomena are actually absent if stimuli are delivered to the left hand when it is placed in the right hemispace. Crucially, however, they also show that spatial disposition has no effects in reports of disownership: patients keep reporting that their left hand does not belong to them, regardless of where it is located. In the description of one of the cases the authors write, for instance, that "[s]pecifically asked about how it was possible to perceive stimuli delivered to another's hand, the patient reported that 'many strange things can happen in life'" (440). These patients thus undergo bodily sensations in the left hand – specifically, tactile sensations –, but still do not report to experience the touched hand as their own. If we take their reports at face value, we have reasons to think that their bodily experiences do not involve a SBO at all. These would hence be cases in which experiences of a type that typically involve a SBO occur, but in which this typical link is broken.

At this point, one might legitimately wonder the following: in what specific sense must these theories take into account cases like somatoparaphrenia, characterised by *not* involving the first-person in reports of

[23] I will only elaborate on the details of these cases when required by the specific arguments developed at other points of this dissertation, specially when assessing how my own proposal deals with this third desideratum (Chapter 4, section 4.2.3).

somatosensation, if what our first desideratum asks for – and what the very notion of SBO ultimately is about – is an explanation for the cases in which the relevant judgments *are* at stake? What is exactly the constraint imposed by the Empirical Goal, in this sense? In fact, that somatoparaphrenic patients express *disownership* for their limbs might arguably tell little about ownership phenomena. Even more, disownership might have to be treated as a separate phenomenon altogether (Bermúdez, 2011; de Vignemont, 2011, 2018; Chadha, 2018). The reply to this fair worry is that, even if we are indeed not asking of theories on the SBO that they offer a positive explanation of the disownership expressed by somatoparaphrenic patients, these cases still are, so to speak, retaining walls for the theories. As the Empirical Goal states, we must *leave room* for them: an account of the SBO that precludes the possibility that the empirical cases reported in the literature exist is not acceptable, unless it offers an independent interpretation of the empirical results that rules them out as putative counterexamples.

Other pathologies discussed in the literature in connection with the notion of ownership include depersonalisation – in which conscious experiences other than bodily sensations also appear distorted (Billon, 2016a); xenomelia (Berti, 2013; Romano et al., 2015); congenital insensitivity to pain (Nagasako et al., 2003); and deafferentation – which poses difficulties on the edge between ownership and the sense of agency (Cole and Paillard, 1995; Gallagher, 2004; Frith, 2004).

On the side of experimental cases, the paradigmatic one for philosophers working on the SBO is the Rubber Hand Illusion (RHI; Botvinik and Cohen, 1998). In the original setup of the experiment, the illusion is elicited by having subjects seat with their left arm resting on a table and placing a screen beside the arm in order to hide it from their view. A rubber model of a left arm and hand is placed on the table in from of them. The experimenter then strokes the rubber hand and the subject's hidden hand with two paintbrushes, making simultaneous movements, while the subjects' eyes are fixated on the rubber hand. Afterwards, the subjects complete a questionnaire aimed at capturing their experience during the stroking. The questionnaires show that the subjects "agree strongly" with the following claims: "it seemed as if I were feeling the touch of the paintbrush in the location where I saw the rubber hand touched"; "it seemed as though the touch I felt was caused by the paintbrush touching the rubber hand"; and "I felt as if the rubber hand were my hand".

The RHI is typically taken to unveil the multimodality underlying the SBO. It is key to eliciting the illusion that there is a spatial and temporal congruence of the visual, tactile, and proprioceptive inputs in arm-centred frames of reference: the movement of the paintbrush that subjects feel on their skin and that of the paintbrush they see on the rubber hand are consistent; and so are the somatosensorily detected position of their left upper limb and the visually perceived position of the rubber limb. According to Botvinik and Cohen, the RHI shows that intermodal matching is sufficient for self-attribution. More specifically, it shows that somatosensation can adopt a secondary role with respect to vision when it comes to determining the location of self-attributed (body-like) objects. This is most clearly manifested in the first report above ("it seemed as if I were feeling the touch of the paintbrush *in the location where I saw* the rubber hand touched") – as well as in a modification of the initial experimental setup in which subjects are asked to indicate the location of their left hand with their right hand after the stroking, to which they respond by locating it closer to the rubber hand than to their own left hand.

Contrary to the case of somatoparaphrenic patients, who deny ownership of their own limbs, subjects under the RHI self-attribute a limb that is actually not their own. Notice that, given the notion of SBO defined above, subjects under the RHI can be said to have a SBO for the rubber hand, since they *report* that the rubber hand feels like their own. Furthermore, since in the RHI there also seems to be a shift in the location of the tactile sensation towards the rubber hand, or so subjects report, the intuition that occurrent bodily sensations must be accompanied by a SBO is not challenged: in particular, subjects have a SBO for the limb towards which they feel the sensation to be instantiated, namely for the rubber hand.[24]

Besides the RHI, there are other experimental results discussed in the literature in connection with the notion of ownership, drawn from the

[24] Admittedly, this requires a further qualification on [*SBO*]. According to the definition offered, one has a SBO if and only if one is aware of the body one feels in bodily experience as being one's own. The rubber hand is obviously not the limb from which subjects under the illusion receive somatosensory feedback, and therefore, it might be observed, strictly speaking it is not the limb they *feel in bodily experience*. To solve this puzzle, the non-factive character of [*SBO*] needs to be vindicated. Bodily experience is crucially involved in the RHI: the RHI actually consists in an *illusory bodily experience* in which subjects have a tactile sensation part of the content of which is the rubber hand (namely the non-illusory content of their visual experience). The subject's mislocation both of the hand and of the sensation are evidence of this. Hence, on this non-factive reading, the rubber hand is the hand that subjects (seem to) feel in bodily experience, of which they report they feel *as if* it was their own.

elicitation of several other bodily illusions such as the invisible hand illusion (Guterstam et al., 2013); the full body illusion (see e.g. Lenggenhager et al., 2007); the out of body illusion (see e.g. Thakkar et al., 2011; Guterstam and Ehrsson, 2012); and the body-swap illusion (see e.g. Petkova et al., 2011). All these empirical cases, pathological and experimental, put on the table a range of actual situations in which bodily experiences occur that bare abnormal relationships with judgments of ownership, thereby delimiting the scope of phenomena that need to be taken into account in our discussion. What the Empirical Goal does is making this necessity explicit, and stating that theories on the SBO should be able to accommodate all the relevant cases.

To recapitulate, in the sections developed up to now I have elaborated on (i), the Central Substantive Point, and (ii), the Central Programmatic Point. I have proposed that there exists a SBO involved in bodily experiences, and I have outlined the philosophical research project built around it as the attempt to give an answer to the Constitutive Question. Besides, I have put forward three desiderata for theories on the SBO, thereby further explicating what the inquiry into the SBO consists on. Crucially, these desiderata emerge from reflection on three features that define the phenomenon under consideration: philosophers working on the SBO ultimately aim at spelling out the awareness subjects have of their body as their own in bodily sensations in a way such that accounts for the bodily self-attribution yielded by the relevant states (Judgment Formation Goal), which occurs seemingly compellingly whenever these states take place (Intuitive Goal), by being able to accommodate or explain away all the empirical cases, pathological and experimental, relevant to the discussion (Empirical Goal). On the way to developing these ideas, I have put forward the landscape of views on the SBO available in the literature.

1.4. The Sense of Experience Ownership (SEO)

1.4.1. Introducing the Notion: *Senses* of Ownership

The notion of SBO has been introduced in the previous section in what was intended as the most neutral way possible. This is precisely what allowed me to pose the Constitutive Question. The characterisation is neutral in the sense that it only assumes what seem to be uncontroversial facts, namely:

a) we make judgments intended to report our bodily experiences;

b) in normal circumstances, these judgments involve a first-person pronoun in the content position, that is, qualifying the body we judge to feel – or could involve it and count as accurate reports of the relevant bodily experiences;
c) for every judgment of this sort, if it is sincere, the subject that entertains or utters it is aware of the body she feels as her own.

I also put forward a further feature related to (a) and (b), namely that the tokening of a first-person pronoun in the content position in judgments intended to report bodily sensations seems remarkably compelling.

Notice now that, as I suggested in the opening of this chapter, bodily experiences typically are mental states suitable to be reported in judgments that are de se in yet another sense: subjects endowed with a conceptual system or language would express them by using a first-person indexical *in the subject position*. Judgments such as "*I* can feel that my legs are crossed" or "*I* have a pain on the right side of my lower back", taken as reports of a given subject's actual feelings of having crossed legs or being in pain, bear witness to this. But the property of bodily experiences I am now pointing to is obviously not exclusive of this type of mental states. It is a fact about phenomenally conscious experiences in general that, may the subject that undergoes them have the capacity to make judgments in which she reports them,[25] she will typically use the pronoun "I" in the subject position. In other words, mutatis mutandis claims a) – c) above apply to phenomenally conscious experiences in general:

d) we make judgments intended to report our phenomenally conscious experiences;
e) in normal circumstances, these judgments involve a first-person pronoun in the subject position – or could involve it and count as accurate reports of the relevant experiences;
f) for every judgment of this sort, if it is sincere, the subject that entertains or utters it is aware of the experience she is undergoing as her own.

Judgments such as "*I* am thinking of you" or "*I* hear the sea" are also instances of the phenomenon described in d) – f), granted that the subject that entertains

[25] Broadly understood, encompassing avowals and introspective judgments.

or asserts them aims at reporting her occurrent mental states as of thinking and having an auditory perception respectively. I will call judgments of this sort, in which phenomenally conscious experiences are reported, *judgments of experience*. Incidentally, notice that judgments of somatosensation are a particular type of judgment of experience. Let us now grant that when one sincerely asserts judgments of experience that are first-personal in that they involve a first-person pronoun in the subject position, one expresses awareness of the experience one undergoes as being one's own – just as (f) states.

This yields a new definition, aimed at capturing the phenomenon just described. Let me call it a *sense of experience ownership* (SEO):[26]

> [*SEO*]: for one to have a sense of experience ownership is for one to be aware of the phenomenally conscious experience one undergoes as being one's own.

I shall propose that there are defining features to the phenomenon described in [*SEO*] that yield a parallel with the SBO. This parallel might actually explain the habitual use of the expression "sense of ownership" in the two cases in the literature.[27] The relevant similarities between SBO and SEO dictate parallel goals to the views aimed at accounting for one and the other: at the end of the day, the goals just encapsulate the particular features of the phenomena that need to be explained by the relevant theories. More generally put, I contend that the philosophical inquiries into the SBO and the SEO are similar, and so is the spirit of the various theoretical possibilities that make up the respective debates. All this should have become clear by the end of the present section. In this particular subsection, I will put forward some preliminary points in order to pave the way for the subsequent exposition.

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[26] Jose Luis Bermúdez (2018a, 2018b) has independently developed a distinction akin to the SBO/SEO distinction, which has been published in the very last stages of preparation of this dissertation. He defines *physical ownership* (φ-ownership) as "the phenomenon of taking one's body parts to be parts of oneself, and (correlatively) of taking one's body to be one's own", and *psychological ownership* (ψ-ownership) as "the phenomenon of taking one's own conscious thoughts, feelings, emotions, and other mental states to be one's own" (2018a, 236). These notions refer to the existence of judgments of ownership in the physical and psychological domains respectively. He describes the debate as the attempt to offer *descriptive-causal* and *reason-giving* explanations about the sources of the judgments. De Vignemont (forthcoming) also starts with the sketch of a similar distinction.

[27] For an example of the dual use of this expression, and others in the vicinity such as "sense of mineness" or "for-me-ness", see García-Carpintero, M. and Guillot, M. (eds.), *The Sense of Mineness* (forthcoming), which contains papers both on bodily awareness and awareness of phenomenally conscious experiences, focusing on the intricacies of the self-attribution thereof.

To start with, compare [*SEO*] with [*SBO*], repeated below:

> [*SBO*]: for one to have a sense of bodily ownership is for one to be aware of the body one feels in bodily experience as being one's own.

Indeed, both definitions appeal to something of which one is aware – a body in [*SBO*] and an experience in [*SEO*]. By the same token, both definitions assume that there are individuals of whom we can say that they are aware of something – be it a body or an experience. It seems natural to call these individuals *subjects*, as I have been doing occasionally in the previous pages. Besides, both [*SBO*] and [*SEO*] mention specific *ways* of being aware of the relevant element in each case: [*SBO*] talks about the body one feels in *bodily experience*, and [*SEO*] refers to experiences one is *phenomenally conscious of*. One has a sense of bodily ownership for the body one feels somatosensorily, and a sense of experience ownership for the experience one is phenomenally conscious of, when one is aware of them as being one's own. Notice that the sense of ownership described in [*SBO*] concerns (part of) the *content* of a particular class of phenomenally conscious experiences – bodily experiences –, namely the body. On the other hand, the sense of ownership described in [*SEO*] concerns *mental states* themselves. The comparison between the two notions at this point is useful to evince that the *awareness* (of X) *as being one's own* is a crucial bit both to [*SBO*] and [*SEO*].

I already clarified what this awareness involves in the particular case of [*SBO*]: one is aware of the body one feels in bodily sensation as being one's own if one would sincerely report the sensation by using the first-person pronoun to qualify the felt body. This limited, neutral notion of awareness is also the one that the facts described in d) – f) allow us to assume as involved in [*SEO*]. More specifically: a speaker *manifests awareness* of the experience she undergoes *as being her own* to the extent that she reports that she takes this experience to be her own by tokening the first-person pronoun in the subject position when reporting it. Correspondingly, a subject *is aware* of the experience she undergoes *as being her own* to the extent that she would report it via statements of the mentioned sort. In sum, the notion of awareness at stake in [*SEO*] is the one we can assume is involved in any sincere judgment, and hence in particular in judgments intended as reports of experiences.

I will henceforth assume that there is such a thing as being aware of the phenomenally conscious experience one undergoes as being one's own. Stated

otherwise, I will assume that there exists such a thing as a SEO. This assumption should be found mainly uncontroversial given the notion of awareness at stake. In fact, it should be noted that the SEO is in principle a ubiquitous phenomenon across phenomenally conscious mental states. It is a typical feature of all conscious mental states that, if undergone by a subject with a capacity to make judgments in which she reports them, she will express them via judgments that involve the pronoun "I" in the subject position.

It is important at this point to stress the following: as phenomenally conscious experiences, bodily experiences constitute a particular example to this generalisation. Resorting to the formulation I opened this chapter with, by entertaining judgments such as "*I* can feel that *my* legs are crossed" on the grounds of a certain episode of somatosensation, I am taking myself to be the owner of the body to which I ascribe certain properties *and also* the subject of a mental state. A mark of this are the two first-person pronouns involved in the mentioned judgment of somatosensation. Given the assumption just mentioned, then, I am also assuming that there is such a thing as being aware of the phenomenally conscious bodily experience one undergoes as being one's own, or that there exists a SEO for bodily experiences.

As said, the aim of this dissertation ultimately is to put forward an account of the SBO, namely an answer to the Constitutive Question. However, it is important to bear in mind, from this point on, that bodily sensations typically involve both awareness of the felt body as one's own (SBO) and awareness of the very sensation as one's own (SEO). The specific sense in which, I will propose, it is relevant that the SBO and the SEO typically co-occur in bodily sensations will only become clear in the third chapter of this dissertation, in which I will put forward my positive account on the SBO. Yet, let me close the present subsection by elaborating a bit more on the point about the co-occurrence of these two phenomena in bodily sensations – that is, by making the Descriptive Point mentioned in the opening of this chapter.

Although some of the authors participating in the debate on the SEO also take part in the debate about the SBO, the two discussions can be taken, and actually are held, mainly apart from each other. This seems in principle unproblematic, since the SEO and the SBO are different phenomena, captured by concepts that are not equivalent. Correspondingly, not all philosophers aiming at disentangling one intend, nor in principle have to, disentangle the other as well. However, here is a rather intuitive observation that seems worth of attention: if I claim that "I can feel that my legs are crossed", the individual

of whom I intend to say, on the basis of the single token mental state of feeling crossed legs, both that she has a proprioceptive experience and that she has crossed legs, is one and the same, namely myself. The mental and bodily self-attributions that typically can be articulated in judgments of somatosensation, which correspondingly involve (variants of) the first-person pronoun, finally are attributions to a single individual, granted that the pronoun is used consistently adequately.

In this sense, the claim that the SEO and the SBO co-occur in bodily experiences is not a claim about *mere* co-occurrence. Philosophical discussions about the self-attribution of mental states – as part of discussions on how we are, in general, conscious of mental states –, and about the self-attribution of bodies – as part of discussions on how we are, in general, conscious of bodies –, belong to a cluster of discussions on *self*-consciousness – namely discussions on how we are conscious of ourselves. That these two phenomena co-occur in bodily experiences means that several of the senses in which we say of subjects that they are self-conscious converge in this type of mental states. In particular, it can be said that when a subject S undergoes a bodily experience there typically are at least two aspects of S that are interwinedly disclosed to S herself: her mental as well as her bodily condition.

Why is this Descriptive Point relevant at all? As I see it, the fact described belongs to a set of motivations one might have to at least consider the possibility that the SEO be relevant to an analysis of the SBO. Broadly speaking, my proposal will take seriously the typical, not mere co-occurrence of the SEO and the SBO in bodily experiences, by postulating the existence of explanatory relations between the two of them. In particular, I shall propose that the SBO constitutes a form of self-consciousness that significantly depends on the SEO – the latter being a much more pervasive phenomenon than the former. On the face of it, this type of proposal has the advantage of offering a unified account of the forms of self-consciousness involved in bodily awareness, as arguably recommended by the plain fact that the first-person pronouns possibly involved in judgments of somatosensation (intend to) refer to one and the same "self" in each case.

This fact should be taken together with the fact that the phenomena under consideration, namely the SEO and the SBO, manifest structurally similar features, as I will immediately try to show. This is also part of the motivation one can find for a view along the lines of the one I will propose: this sort of

view seems to have good prospects as for offering an explanation to why some central features of the SBO parallel those of the SEO.

1.4.2. The SEO: Some Clarifications

I have announced that I will underline several defining aspects of SEO that allow for a parallel between it and the SBO. Yet, before engaging in this exposition, in the present subsection I want to take into consideration various aspects that, it might be claimed, make the awareness of phenomenally conscious states as one's own, and the awareness of the somatosensorily felt body as one's own, prima facie clearly distinct. I will argue that these prima facie clear differences are dissolved if the scope and implications of the commitment to [*SEO*] and [*SBO*] are properly understood.

The first possible worry arises from considerations on the transparency of conscious perception. According to the thesis of transparency, all that is presented to a subject when she has a conscious perceptual state is the object of the state. In particular, if a subject tries to introspectively attend to, say, her visual experience as of a cup of coffee in front her, she will find nothing but the cup of coffee visually presented to her. In this sense, the transparency theorist would say, our perceptual experiences do not present us with aspects of our own consciousness – in particular, they do not present us with the experiences themselves – but rather just with the objects represented in them (Harman, 1990; Tye, 1995).

From this point of view, the claim that we are *aware* of *the bodies* we feel in bodily sensations (as being our own) might seem relatively uncontroversial, since it appeals to our consciousness of the content of mental states of a given type. Yet, in contrast, it might be argued that the assumption about the existence of a SEO *is* indeed controversial, at least when it comes to its ubiquity: there is at least a type of mental state, namely perceptual states, in which we are not aware of the experiences we undergo as being our own plainly because we are not aware of *the experiences* we undergo. If so, then the claim that the SEO and the SBO co-occur in bodily experiences might be found unwarranted, if one takes bodily experiences to be perceptual in kind.

My reply here is that the thesis about the existence and ubiquity of the SEO does not commit us to anything the transparency theorist could not accept. It is a fact that we often make claims involving psychological terminology. Indeed, after looking at my cup of coffee for a while, I might

engage in describing its shape and colour, since I have been considering them as part of the content of my visual perception. But I might very well just say, "*I see* the cup" instead. Or, while lying on my desk chair, I might point out how the sea must be rough on the grounds of hearing the waves slapping against the coastline. But I might very well just declare, "I *hear* the sea". All we need to make sense of the idea that we are aware of our conscious experiences as it is expressed in [*SEO*] is the acknowledgment of this fact. Arguably, I am trying to refer to something by operationalizing the psychological notions of *seeing* and *hearing* in the mentioned statements – something which might not be phenomenally given, but which I purportedly take to be different from, say, *smelling* the coffee or *tasting* the sea. Only in this sense, and given the terminological proviso that we call the relevant psychological events *experiences*, does accepting [*SEO*] commit us to the idea that we *are aware* of experiences.[28] Incidentally, this is also the only sense in which the acceptance of [*SBO*] commits us to the claim that we are aware of our bodies in bodily sensations.

The second worry arises from considerations on the factivity or non-factivity of the notion of awareness at stake in each case. As said, in the case of the SBO, it is non-factive: the SBO is different, and presumably independent, from whether the body one feels as one's own in a given situation is actually one's own according to the relevant metaphysical criteria. To the extent that one can conceivably have a SBO for a body that is not her own, for instance in cross-wired scenarios in which one receives somatosensory feedback from another's body, our intuitions about the criteria for the attribution of bodies to subjects seem to go beyond the fact that the subjects can feel the relevant body somatosensorily, and hence beyond the fact that they can feel it somatosensorily as their own.

In contrast, in the case of [*SEO*] the very question whether the notion of awareness involved is to be understood factively might be found simply trivial. Consider a phenomenally conscious experience E and a subject S, and suppose that S undergoes E at t – and incidentally judges E to be her own at t. [*SEO*] is in principle metaphysically noncommittal: it makes no claim about what makes a given experience the experience of a specific subject. Hence, [*SEO*] is in principle compatible with E not being S's experience at t. However, the following seems plausible: regardless of whether S judges E to be her own –

[28] What will be problematic for transparency theorists, and actually should be given their theoretical commitments, are certain specific accounts of SEO aimed at answering what I will call the "Constitutive Question – E" (see subsections 1.4.3 and 1.4.4 below).

regardless of whether S is aware of E *as being her own* –, E is S's own experience *just because* it is phenomenally conscious for S.[29] From this point of view, the metaphysical neutrality of [*SEO*] might be read as relying on the tacit assumption that what makes a given phenomenally conscious experience the experience of a specific subject is plainly the fact that she undergoes it. If this is true, then S's judgment that E is her own will by necessity track actual facts about experience ownership. This can be found more trivial the more plausible the mentioned metaphysical principle is taken to be.

This concern focuses on the ways of being aware of that for which we have a sense of ownership. In particular, it points to the following contrast between the SEO and the SBO: in the case of experiences, if one is *phenomenally* aware of them, it follows that they are one's own; whereas in the case of bodies, if one is aware of them *somatosensorily*, it does not straightforwardly follow that they are one's own, even if in normal circumstances it is one's own body that one is aware of in this way.

My first-pass reply to this worry is that, indeed, this might be a relevant metaphysical difference between experiences and bodies. But this difference should not worry us, since it is tangential to what we are concerned with when addressing the SBO and the SEO. The worry focuses on the metaphysical significance of *awareness*, in particular on the degree at which S's awareness of X in way W makes it the case that X is S's own. Important as this metaphysical question might be, it is not the central question of this dissertation. My focus here is rather on the awareness of X as one's own in the sense of it yielding judgments of ownership – and on the fact that it seems to be linked with being aware of X in particular ways and not others.[30]

A possible rejoinder to this first pass reply picks up on whether the metaphysical question about what makes an experience, or a body, that of a

[29] This concern could not be raised by defendants of perceptual accounts of (phenomenal) awareness (e.g. Locke, 1975; Armstrong, 1968). According to them, the faculty by which we access what turn out to be our mental states is one more perceptual ability. Hence, they cannot appeal to the mode of access as the criterion to determine which set of experiences makes up a given subject's mental life, since there are plenty of other objects that we access perceptually, and we access other subjects' experiences in the same way. On the other hand, the commitment to this claim – that E is S's own experience just because it is phenomenally conscious for S – will be radical, even metaphysically necessary, if one endorses the view that experiences are events consisting in the instantiation of phenomenal properties by subjects (Nida-Rümelin, 2018).

[30] I elaborated this point for the bodily case when contrasting somatosensation with visual perception in order to motivate the Intuitive Goal (section 1.3). This very same point will be elaborated for the case of experiences in the next subsection (1.4.3). It constitutes one of the parallel common features between SBO and SEO, or so I will argue.

specific subject's can be ruled out of the picture so easily. A way of expressing the worry is this: the suitability of the term "ownership" in the context of [*SEO*] is doubtful. Whereas it can be found acceptable, although still somewhat metaphorical, when applied to our bodies, the claim that we (have the sense that we) *own* experiences strikes one as unnatural. In this sense, the parallel intended when defining the SBO and the SEO in similar terms does not make full justice to the phenomena. And this, the rejoinder goes, has to do precisely with the metaphysics.

Let me elaborate this rejoinder a bit more. For the sake of the argument, let us assume that for every subject S, what it means for there to be an experience of S's own just is for there to be an experience of which S is phenomenally aware. If this seems plausible, it is on the grounds of what it means for phenomenally conscious experiences to exist at all: to be undergone as such by a subject, so that whenever they occur they do so qua experiences *of* the subject. The case of physical bodies is obviously different: we have criteria to establish the existence of bodies, and in particular of a given subject's body, other than their being experienced in one way or other by the subject. Hence, what it means for a subject to actually "possess" a body seems to be something remarkably different from what it means for her to actually "possess" an experience. And this is so exactly for the reasons that explain the mentioned factivity of first-personal judgments of experience: there is nothing else to being an experience than belonging to a subject in the specific sense of being experienced by her. The inadequacy of the term "ownership" in SEO, the worry goes, has to do with the fact that it is not a matter of contingency that, for every conscious experience, there is a conscious subject who is ready to self-attribute it, as it might be a matter of contingency in the case of bodies.

My reply to this rejoinder goes back to a point I insisted on before. Nothing of what the objector points out is incompatible with the commitment to [*SBO*] and [*SEO*] in the specific sense I am suggesting. "Ownership" and related expressions such as "awareness as being one's own" have been chosen simply as placeholders for "reports in the first-person": to "own" X is to self-attribute X in judgment. The acceptance of the existence of a SBO and a SEO is therefore not incompatible with an eventual specification of the metaphysical relations between subjects and what they claim to own in each case, namely either a body or experiences, in their own specific terms.

1.4.3. SEO: Basic Features and Goals for Views

In this subsection I will put forward the three defining aspects of the SEO that theories on this phenomenon need to take into consideration when addressing it. As will be noticed, these features parallel mutatis mutandis those mentioned above as central to a SBO. In the present subsection, I will address the various aspects of the SEO on the way to defining three desiderata for views that aim at accounting for it. As it will be seen, these desiderata parallel mutatis mutandis the ones I defined for views on the SBO.

Notice that, at the end of the day, each of the desiderata I proposed for views on the SBO just captures a feature of the explanandum that, I argued, needs to be accounted for by the relevant theories. Just to repeat, accounting for the SBO is specifying the awareness subjects have of the body as their own in bodily sensations in a way such that: explains the bodily self-attribution that figures in judgments of somatosensation – as expressed by the Judgment Formation Goal; accounts for the seeming compellingness of this self-attribution – as demanded by the Intuitive Goal; and does so by taking into account the empirical cases relevant to the discussion – as expressed by the Empirical Goal.

Hence, it makes sense that, if a second explanandum displays characteristics that are relevantly analogous to those of the first, then a set of desiderata for theories on this explanandum can be proposed that is mutatis mutandis analogous to the first set of goals. This is what I contend happens in the case of the SBO and the SEO.

This is interesting because it suggests that two inquiries pursued relatively independently in the literature are more similar in spirit than it might be assumed. A symptom of this similarity is that the views within the debate on the SEO can be taxonomised in a way at least partially parallel to that used to describe the views on the SBO, starting from the initial partition between experientialists and judgmentalists. As the other side to the same coin, the observations to follow also suggest that the philosophically relevant aspects of the respective objects of study of these debates – that is, our awareness of bodies in the specific case of somatosensation, and our awareness of experiences in the specific case of phenomenal consciousness –, are remarkably alike. This parallelism might actually explain the fact that the expression "sense of ownership" is used in the context of philosophical discussions both about our awareness of bodies and about our awareness of

experiences even if there are aspects in which these two objects of awareness differ radically. Within the broader context of this dissertation as a whole, all this belongs to the set of motivating reasons for the kind of view that I will end up defending in the last chapter, namely one that postulates explanatory relations between the SEO and the SBO.

Let me start by recalling the definition of the sense of experience ownership:

> [*SEO*]: for one to have a sense of experience ownership is for one to be aware of the phenomenally conscious experience one undergoes as being one's own.

With [*SEO*] on the table, we can ask the following question: what is the *nature* of the awareness involved in being aware of the phenomenally conscious experience one undergoes as being one's own? In other words, after acknowledging the existence of a SEO, we can formulate again the Constitutive Question, yet this time focusing specifically on the type of awareness involved in having phenomenally conscious mental states and being aware of them as our own. Let me call this question the *Constitutive Question – E*. Authors in the literature who aim at accounting for the SEO ultimately aim at putting forward an answer to the Constitutive Question – E.

Answering the Constitutive Question – E arguably implies a characterisation of phenomenally conscious experiences such that allows for an explanation of the first-personal character of all judgments aimed at reporting them that are de se in the sense of including the pronoun "I" in the subject position. Hence, the inquiry into the nature of the SEO pursues the following:

> [*Judgment Formation Goal – E*]: any account of the SEO must explain the fact that we self-attribute phenomenally conscious experiences for all judgments of experience in which we do so.

Again, judgments of experience in which the first-person features in the subject position, with all the caveats put forward in the previous subsections, constitute an initial datum: something the existence of which all philosophers engaged in the debate on the SEO can agree on, and which has the status of an explanandum. It is precisely in the sense of there being judgments of mental self-attribution that we find the claim about the existence of the SEO

uncontroversial. It is also from this perspective that we can set the Constitutive Question – E without begging the question. What the Judgment Formation Goal – E does simply is stating the need for an explanation of the undisputable facts described in points d) – f) above by calling upon the relation between judgments of experience and phenomenally conscious experiences in a satisfactory way. In other words, the goal expresses that the only datum we undoubtedly have when analysing the relation between phenomenal consciousness and the self-consciousness putatively involved in it is the fact that we tend to report the former in first-personal terms, and states that this needs to be explained.

With this first goal in mind, the second desideratum that, I think, theories on the SEO must meet focuses on what I take to be a central feature of the relation between phenomenally conscious experiences and the judgments by which we report them. It is not far-fetched to claim that the following has been a tacit assumption throughout some of the classical, most influential approaches to subjectivity and the mind: there is a necessary connection between the occurrence of phenomenally conscious experiences and their subject's awareness that the experience is theirs.

A paradigmatic example of this can be found, for instance, in Descartes' reasoning for his "first item of knowledge". On the grounds of his certainty about the occurrence of a specific type of mental state, namely doubt, Descartes famously claimed that the proposition "I am, I exist" is true, and pinned down his point with the idea that entertaining this very proposition *necessarily* implies its truth (Med. 2, AT 7:25). This first item of knowledge then paved the way for his inquiry into the nature of the I "that now necessarily exists" (ibid.). The specific reasoning put forward by Descartes between his First and Second meditations evinces that he took, on the one hand, the claim that there is thought[31] to warrant the claim that *I* am thinking; and on the other hand, the latter to be the case, metaphysically speaking. These epistemic and metaphysical assumptions involved in the Cartesian reasoning for the cogito

[31] In a broad sense of thought, which includes the conscious mental states the existence of the intentional objects of which has been put into question by the Cartesian meditating subject (and it includes them *as* states the existence of the intentional objects of which is into question). As Descartes puts it in reply to Gassendi's objections, "I can't say 'I am walking, therefore I exist', except by adding to my walking my awareness of walking, which is a thought. The inference is certain – meaning that it makes the conclusion certain – only if its premise concerns this awareness, and not the movement of my body" (Replies 5, AT 7:352).

have been extensively discussed.[32] The point I intend to stress here is, however, more fundamental and less controversial than these issues. Still, it is plausibly involved in the motivation for these assumptions: the categorical Cartesian claim that "*I* am, *I* exist", made on the grounds of the awareness of there being thought, can be taken as following naturally from the fact that one intuitively finds the connection between being phenomenally aware of mental states and self-attributing them very compelling – compelling to the point that the step from one to the other might go unnoticed, and philosophically very significant conclusions are drawn from it. That this connection seems compelling is the point I want to stress now. The point is noncommittal, at least in the sense that acknowledging it is still compatible with endorsing the criticism according to which being aware of there being thought does not warrant the claim that it is *I* who thinks.

The acknowledgment of this compellingness yields what, I contend, is the second desideratum for all theories on the SEO:

> [*Intuitive Goal – E*]: any account on the SEO must specify it in terms that explain the seemingly necessary link between undergoing a phenomenally conscious experience and being aware of it as being one's own.

As happened with the Intuitive Goal in the case of the SBO, the Intuitive Goal – E talks about a *seemingly* necessary link between phenomenally conscious experiences and the report thereof in the first person. This phrasing is motivated by the existence of cases of so-called *thought insertion*, reported in the literature (Jaspers, 1963; Frith, 1992; Gallagher, 2004).

Taken to be a first-rank diagnostic symptom of schizophrenia (Schneider, 1959), thought insertion is a case of delusion consisting in the subject's episodic experience of thoughts which are not her own intruding into her mind. Not only do patients report feeling as if the thoughts themselves were not theirs, but also sometimes they attribute them to an external entity. Patients who suffer from thought insertion characteristically make reports such as the following:

> "I look out of the window and I think the garden looks nice and the grass looks cool, but the thoughts of Eamonn Andrews come into my mind. There are no

[32] For classical discussions on these issues, see Lichtenberg's notes in his *Waste Books* (2012, 152) and Russell (1945).

> other thoughts there, only his … He treats my mind like a screen and flashes his thoughts on to it like you flash a picture." (Mellor, 1970, 17)

How to best interpret the phenomenon of thought insertion is much discussed in the literature. Some construe it as a case in which subjects lack a "sense of ownership" over their thoughts (Metzinger, 2003; Martin and Pacherie, 2013). In contrast, what we could take as the standard account today has it that patients still retain a "sense of ownership" for their thoughts but lack a "sense of agency" for them, namely the sense of having been their producers (Stephens and Graham, 1994; Gallagher and Zahavi, 2008). The standard account is motivated by the idea that the way how patients access the relevant thoughts is still first-personal, in the sense that they still report to feel that these thoughts are in "their mind" or in their own stream of consciousness.

Part of what is involved in disentangling this debate has to do with terminological precisions, such as clarifying what each of its participants might mean by the expressions in between quotation marks above. The report just reproduced, however, suffices to see that the case of thought insertion might be problematic even if what one has in mind when assessing it is the notion of a SEO at stake in this dissertation – a notion that has been proposed as the most noncommittal possible. According to [*SEO*], subjects have a SEO for the thoughts they entertain when they are aware of them as their own, namely when they would report them by using a first-person pronoun in the subject position. The fact that the patient claims that "the thoughts *of Eamonn Andrews* come into *my mind*" makes it doubtful whether, in this particular case, the patient would take the statement "*I* am thinking (the thoughts)" to be an accurate description of his experience at this moment.[33] Hence, judging from what the empirical literature reveals, there might be actual cases that challenge the intuition that, whenever there are conscious mental states, the subject undergoing them will be aware of them as her own. This recommends that the Intuitive Goal – E be formulated in terms of "seeming necessity".

Again, as happened in the case of the Intuitive Goal for theories on the SBO, it might be said that once the relevant pathologies are common knowledge in the literature, it is doubtful that it *seems* to us that the self-attribution is necessary. In the particular case under discussion now, one might claim that once thought insertion is on the table, there is a sense of seeming in

[33] As far as I know, there are no reports in the literature in which this ambiguity is definitely resolved.

which it is no longer true that it seems to us that the link between being phenomenally aware of a given mental state and self-attributing it is necessary. This is, again, a fair concern, that allows me to bring in some clarifications about the Intuitive Goal – E.

When discussing the SBO, I introduced the intuition of necessity by underlining a contrast between somatosensation and visual perception of bodies when it comes to the judgments we conceive of them as possibly yielding. Whereas it is natural to think of a state of visual perception of a body that does not yield a self-attribution, on the part of the subject of the perception, of the body represented in it, the case is remarkably different for bodily sensations. As I pointed out, this intuitive difference probably tracks the fact that in normal conditions the only body we access somatosensorily is our own, and more importantly, in normal conditions we do self-attribute the body when we access it in this way. On these grounds, our folk notion of a bodily experience, unlike that of a visual perception, might itself involve the self-attribution of the perceived object, so that our intuitions are shaped in the direction described.

The relevant self-attribution in the case of the SEO does not concern the content of a given class of mental states, but rather mental states themselves. Also in this case, the intuition I am appealing to can be articulated by pointing to a contrast case, as follows. There are several ways in which subjects can know about the occurrence of conscious experiences. For instance, I can see you cry out of grief for an important loss, or hear you report how you have been struggling with your professional commitments lately because of constant distress. Empathic as I might be, there is a clear sense in which none of these ways of getting to know about occurrent experiences of grief and distress leads me to judging that I myself am the subject of these experiences. Similarly, my therapist might conclude, on the grounds of my account of a few childhood anecdotes, that I currently feel envy for my older brother. But if this is the only way in which I get to know about occurrent envy, she might have to make a remarkable effort to convince me that *I* am envious indeed.

The Intuitive Goal – E intends to capture, precisely, the peculiarity involved in the self-attribution of conscious mental states when one is aware of them by consciously undergoing them. Our awareness of mental states indeed happens to be relevant to philosophical discussions on self-awareness, but admittedly there is one *way* of being aware of them that strikes us as *the* interesting way: phenomenal awareness, unlike other ways in which one can get

to know about mental states, seems to us to concern ourselves in a specially compelling way.

As far as I can see, the existence of cases of thought insertion does not by itself blur the distinction I am tracing here between ways of accessing experiences when it comes to the compellingness with which each of them seems to us to yield reports in the first-person. In fact, that the *standard* account of thought insertion be one which resists the conclusion that there are cases of conscious awareness of mental states without awareness of them *as one's own* might be an illustration of this tendency. Other illustrations are found in leaps such as the Cartesian, or so I have suggested above.

Paralleling the considerations I made on the SBO, I speculatively suggest that the following would explain the intuition at stake here: our folk concept of a phenomenally conscious experience is one according to which phenomenally conscious experiences involve a SEO – thus being somehow unconceivable that an experience we know of in this way occurs without it involving awareness that it is our own. Correspondingly, this concept might well be based on *the fact* that, in normal conditions, it is indeed our own experiences we are aware of in this way[34] – and more importantly, in normal conditions we *do* take the experiences we are aware of in this way to be our own. The Intuitive Goal – E involves that, whatever it is about phenomenally conscious experiences that explains the awareness that they are *mine*, it will on the one hand hold the key to explaining why this is so in normal circumstances, and on the other hand, it will help make sense of the mentioned intuition of necessity.

In sum, it is central to both the notion of a SBO and a SEO, not only that they involve a self-attribution, either of a body or of an experience, but also that this self-attribution is seemingly compelling. This commonality between our relations to two elements which are otherwise metaphysically very distinct is, I think, a philosophically relevant datum.

The third and last goal for theories on the SEO is dictated by the fact that they concern a phenomenon of an empirical nature: there are facts about conscious subjects being aware of the experiences they undergo as being their own. In this sense, the relevant theories on what this awareness consists of must be extensionally adequate. Straightforwardly put:

[34] Insisting on the point about factivity I made in 1.4.2, it might even be the case that what makes an experience S's experience is just the fact that S is phenomenally aware of it, regardless of whether she takes it to be her own or not.

[*Empirical Goal – E*]: any account on the SEO must leave room for the specific, sometimes abnormal relations between phenomenally conscious experiences and the awareness of them as one's own we seem to have evidence for in some pathological and experimental cases.

Thought insertion is of course a central case in this respect. Another case reported in the literature that is relevant to the present discussion is depersonalisation. Broadly speaking, depersonalised patients report to have a feeling of detachment from their mental states, but also from their bodies, actions, and generally from "themselves". They have a feeling of unreality that leads them to take "the thing" they are aware of as something that should not be referred in the first-person – either because they feel it is multiple or plural, because they feel they access it in a third-personal or observational way, because they feel absent, or because they claim that referring to it as "I" is somewhat artificial, similar to how a machine would do it (Billon, 2017a).

Construing this syndrome in one way or another will partly be a function of the descriptive possibilities afforded by our favoured view on the SEO. For instance, if a theory establishes that the SEO is *necessarily* involved in all conscious mental states, then it must be possible to interpret all the relevant reports, either as indeed involving a (disguised) self-attribution of the relevant state, or as the output of deficient reasonings made on the grounds of conscious states that indeed involve a SEO. In contrast, if a theory characterises the SEO in terms such that allow for there being conscious mental states *without* a SEO, then it will be possible to describe the symptoms as cases thereof. In any case, the power of a theory on the SEO needs to be measured relative to its capacity to accommodate and offer a fair description of the evidence provided by the relevant reports – namely those in which a subject aims at describing her own conscious experiences.

1.4.4. Landscape of Views on the SEO

That the discussion on the SEO can be outlined in the terms mentioned in the subsection just closed evinces that the general worries that motivate it are mutatis mutandis similar to those motivating the discussion on the SBO. A symptom, or a consequence, of this fact is that the views within the debate on the SEO can be taxonomised in a way partially parallel to that used to describe

the views on the SBO, starting from the initial division between Experientialism and Judgmentalism.

Just to recall, the question addressed by those attempting to account for the SEO concerns the *nature* of the awareness involved in being aware of the phenomenally conscious experience one undergoes as being one's own (Constitutive Question – E). Two main lines of answer to this question are found in the literature.

The first line of answer is the one endorsed by *Experientialist Accounts* on the SEO. Experientialism is the view that there is a component of phenomenally conscious experiences themselves that stands for the first-person that eventually figures in the subject position in the judgments in which we report them. Hence, on this view, the epistemic bases for judgments of experience that are de se in the way now relevant involve a genuinely first-person element.

Experientialists disagree on whether *all* our experiences have this "mark of ownership", or rather just a subset of them. For the sake of this debate setting, let us establish that an author holds an Experientialist Account on the SEO if she assumes that *at least some* of our phenomenally conscious experiences involve a first-person component in the way described. It is in principle compatible with (most versions of) Experientialism that creatures that do not entertain conceptually articulated judgments of experience, or that do not have the capacity to do so, have a SEO. This is so because, from this point of view, the only requirement for creatures to enjoy a SEO is that they have experiences of the right kind.[35]

Within Experientialism, one can endorse either of two broad options. Firstly, *Inflationism* is the view that conscious experiences involve a dedicated first-person quale that is not reducible to any of their other components, and which can be missing in some pathological cases (Billon, forthcoming). According to inflationists, the awareness involved in phenomenally conscious mental states that they are one's own consists of this specific quale. Hence, on this view the first-person that finally shows up in judgments has the status of an experiential primitive.

[35] Of course, that creatures that do not entertain conceptually articulated judgments of experience, or that do not have the capacity to do so, enjoy a SEO would *not* be compatible with a possible version of Experientialism according to which *only* conceptually loaded mental states such as thoughts involve an experience of ownership. To my knowledge, no one defends this type of Experientialist Account.

One can be an experientialist and still not endorse inflationism, though. All *non-inflationist* positions have in common the denial of the existence of a dedicated first-person quale: the SEO is phenomenally rich, they defend, but it can be described in relatively independent terms by appealing to other experiential qualia. As I see it, there are two ways of endorsing *Non-Inflationism* in the literature. In the absence of better labels, let me call them *Deflationism* and *Reductionism*. Deflationists about the SEO spell out the first-personal element of experiences in terms of an aspect or dimension of their overall what-it-is-likeness: the "how" or "mode of givenness" of experiences, as they put it (Zahavi, 2005; Fasching, 2009; Zahavi and Kriegel, 2015; Gallagher, 2015, 2017).

Following in the tradition of classical phenomenologists (e.g. Husserl, 1970), authors within this trend take this special mode of givenness to be a "pre-reflective" feature of experiences, in that it serves as categorical basis for full-blown first-person thought, thereby being a "minimal" form of selfhood. A recurrent argumentative strategy for deflationists is to defend the need for this sort of experiential form of ownership as the best explanation of certain crucial features of our self-related concepts, of self-reference in judgment, and of the justification of first-person thoughts (Grünbaum, 2012; Guillot, 2016, 2017; Nida-Rümelin, 2017). This sort of inferences to the best explanation in favour of Experientialism are often found specially helpful to counter the intuition, famously articulated by Hume, that the self is not introspectively accessible [36] – an intuition that even some deflationists endorse (Kriegel, forthcoming).

Still within Experientialism, instead of cashing out the SEO as an aspect or dimension of the overall phenomenology of conscious mental states, *reductionists* identify it with some particular element or other within the relevant experiences, such as a putative phenomenology of agency (Duncan, 2017). Within this trend, many actually defend that the SEO is jointly realised by various phenomenally loaded elements including affective valence, perspective, agency, and reflection (Lane, 2012; Howell and Thompson, 2017); or integrated representations of system specific information and information about the system's environment (Metzinger, 2003).

[36] In Hume's (1739/1975) words, "[f]or my part, when I enter most intimately into what I call myself, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception, and never can observe anything but the perception" (I.iv.6).

The general outline just sketched exhausts, I think, the theoretical options within the literature as for the defence of Experientialism on the SEO. This is, however, only one of the two possible lines of reply to the Constitutive Question – E. The second line of answer is the one offered by *Judgmentalist Accounts* on the SEO. The guiding idea of this line of thought is that subjects are aware of the experiences they undergo as being their own only to the extent that they *judge* that the experiences are their own – or, to put it more generally, to the extent that they exercise the judging capacities relevant to this effect. These views are thus compatible with the thesis that there is no component of phenomenally conscious experiences themselves that stands for the first-person that eventually figures in the subject position in judgments of experience – that is, they are compatible with conscious experiences being, so to speak, selfless. Hence, from this point of view the SEO consists, maybe only partially but crucially, of judgments involving the I-concept that might go beyond anything in the content of experiences themselves.

Note that Judgmentalist Accounts are actually compatible with there being some phenomenology specifically attached to the SEO, maybe cognitive phenomenology. Yet, it is essential to this line of thought that this phenomenology, if existent, is not part of the epistemic basis of judgments of experience, but a byproduct of them. A possible, extreme consequence of this sort of view is thus the claim that the transitions from conscious experiences to the self-attribution thereof in judgments of experience are, in general, unsound or unwarranted (Chadha, 2018). Note also that, in principle, a consequence of Judgmentalist Accounts is that creatures that do not have the relevant judgment related capacities do not enjoy a SEO, even if they undergo experiences otherwise identical to those that would yield judgments of experience, and hence a SEO, in creatures with the relevant conceptual capacities.

Ways of endorsing Judgmentalism include the exploitation of the mentioned Humean intuition about the non-introspectibility of the self (Prinz, 2011); the metaphysical construal of subjects in ways that exclude the very possibility that anything like a SEO be experientially vivid (Dainton 2008, 2016; but also the elaboration of Buddhist ideas on the self, found for instance in Siderits, 2011 and Chadha, 2018); or argumentations to the effect that the explanatory tasks that experientialists assign to the first-person

phenomenology can be fully covered without appealing to it (Praetorius, 2009; Schear, 2009; Salje and Geddes, forthcoming).[37]

This cursory sketch of views covers in rough outlines the two broad ways in which authors working on the SEO address the Constitutive Question – E in the literature. The level of detail offered in this section is, I think, enough to convey the spirit of the discussion. In particular, it suffices to convey its common traits with the debate on the SBO.

To recap, through the various subsections of section 4 I have addressed (iii), the Supplementary Substantive Point; (iv), the Supplementary Programmatic Point; and (v), the Descriptive Point. I have proposed that there exists a SEO typically involved in all conscious experiences, and hence in particular in bodily experiences. I have motivated the idea that the co-occurrence of the SBO and the SEO in bodily sensations is not merely this: rather, it indicates that several aspects of a single subject are disclosed to this very subject via a token mental state when she has a conscious bodily experience. Besides, I have proposed that the SEO features three defining characteristics that need to be accounted for by theories about it: philosophers working on the SEO aim at spelling out the awareness subjects have of the phenomenally conscious experiences they undergo as being their own in a way such that accounts for the self-attribution of the experience typically yielded by one's undergoing it (Judgment Formation Goal – E); for the seeming compellingness of this self-attribution whenever conscious experiences are undergone (Intuitive Goal – E); and for the empirical cases relevant to the discussion (Empirical Goal – E). I have also put forward the landscape of views on the SEO available in the literature. I have thereby suggested that the spirit of the inquiries into the SEO and the SBO in the literature is relevantly similar, which probably explains why the notion of a sense of ownership has become popular in the two contexts.

[37] Besides, higher-order thought theories of consciousness have it that (i) in order for a given mental state T to be conscious, there needs to be a further mental state of a cognitive kind T' that has T as its content; and (ii) T' has an assertoric content of the form "I am in mental state T" (Rosenthal, 2002). This seems to fall under Judgmentalism about the SEO, since it excludes the possibility of there being conscious mental states, and in particular conscious mental states that involve a first-person component, in the absence of conceptually loaded thoughts about these states in which one self-attributes them.

1.5. Conclusion

The various points put forward in this chapter jointly constitute part of the motivation for the sort of view about the SBO that I will defend in the second half of this dissertation. In other words, the notions and arguments presented up to now lead me to a further Motivating Point.

The claims that I have called *substantive* above, together with the *descriptive* one, are specially relevant in this connection. On the one hand, we can claim that there exists a SBO and a SEO, whose characteristic features are comparable. On the other hand, both phenomena co-occur in bodily experiences, and their co-occurrence is not merely anecdotal. There seem to be two types of the same phenomenon, say *self-consciousness*, involved in the particular case of bodily sensations. These facts give reasons not to treat the SBO and the SEO as completely unconnected or isolated from one another, as well as to at least welcome explanations of either of them as they are instantiated in bodily sensations that mention the other.

The view that I will develop in the second half of this dissertation has it that the SBO – a type of self-consciousness specifically involved in bodily experiences – significantly depends on the SEO – namely a type of self-consciousness involved in all conscious experiences, and in particular in conscious bodily sensations too. This is one way of advancing a unified account of the two forms of self-consciousness involved in somatosensation, as I think is recommended by the mentioned Descriptive Point. Furthermore, the strategy has good prospects when it comes to underpinning the fact that the SBO and the SEO share some central features, and to do so in a way that is explanatorily rich. It will be part of my proposal to motivate the idea that we actually *gain something* by appealing to the SEO in our account on the SBO, and to specify what it is *exactly* that we gain.

Notice that in the sections above I have remained silent with respect to the possible combinations of views on the SBO and the SEO. Even if it is tacitly assumed that such combination would finally yield a full account of self-consciousness in somatosensation, going into this discussion goes beyond the scope of this dissertation. As said, my aim is to put forward a view on the SBO, as well as to assess some views on it available in the literature. Despite the claim of dependence that I will favour, I will not offer a view on the SEO, nor address the discussion on it besides those specific points relevant to my

own proposal. Offering a full account of self-consciousness in somatosensation remains a task for future research.

Chapter 2

On Experiences of Bodily Ownership

The present chapter principally has a critical aim. In particular, I assess the two main forms of Deflationism about the SBO. I analyse Spatial Deflationism in the first place (section 2.2), and devote the second half of the chapter to Property Deflationism (section 2.3). I will bring to light the limitations of these two accounts by assessing how they fare with respect to the goals for accounts on the SBO put forward in Chapter 1. I will argue that both Spatial and Property Deflationism fail at satisfactorily meeting the Judgment Formation Goal and the Intuitive Goal. Before engaging in the description and assessment of deflationist views, I make some preliminary considerations. In them I justify the scope of this critical chapter as part of the overall project of this dissertation.

2.1. Preliminaries: Scope of the Project

In the previous chapter I mentioned the following datum: if I claim that *I* can feel that *my* legs are crossed, the individual of whom I intend to say, on the grounds of the mental state of feeling crossed legs, both that she has a somatosensory experience and that she has crossed legs, is one and the same, namely myself.

The most relevant aspect of this datum is that picking out *myself* is exactly what I intend to do by tokening the first-person pronouns in my claim. This contrasts with cases in which I might pick out a subject that happens to be me, yet without realising that this is the case. The peculiarity of the first-person pronoun is that it is part of what it means to use it correctly that this lack of awareness that the subject referred to is oneself is necessarily out of the picture.

Perry (1979) famously articulated this idea. One of his most celebrated examples to this effect reads thus:

> I once followed a trail of sugar on a supermarket floor, pushing my cart down the aisle on one side of a tall counter and back the aisle on the other, seeking the shopper with the torn sack to tell him he was making a mess. With each trip

> around the counter, the trail became thicker. But I seemed unable to catch up. Finally it dawned on me. I was the shopper I was trying to catch. (3)

While pushing his cart down the aisle before the revelation, Perry was plausibly entertaining the following judgment: "*Someone* is making a mess". Since, unbeknownst to him, he was the person actually making the mess, his thought in fact referred to Perry himself. More generally put, the person entertaining the judgment and the person thought of in the judgment as making a mess were the same (Guillot, 2016, 139). Yet, before the revelation, Perry wasn't thinking of himself *as himself*: he wasn't aware that *he himself* was the person making the mess. Once he came to realise that this was the case, he moved on to endorsing the following judgment: "*I* am making a mess". Entertaining this judgment, instead of the first "Someone is making a mess", has important practical consequences: for instance, after the revelation, but not before, Perry is in a position to remove the torn sugar sack from his shopping cart. The crucial difference between the first judgment and the second, "I am making a mess", is that in the latter not only the person entertaining the judgment and the person thought of as making a mess are the same, but also this very fact is part of what is grasped in entertaining the judgment (ibid.). Indeed, this fact is *exactly* what is expressed by tokening "I" instead of "someone" *in the subject position* after the revelation. To the extent that in canonically expressing the judgment things are expressed thus, we can say that the thinker *is aware* of this fact, together with the fact that she is the person entertaining the judgment. Full-blown first-person statements are reflexive in this sense.[38]

Let us now take a somatosensory judgment expressed as "I can feel that my legs are crossed". The analysis of the first-person as reflexive in the sense just described applies as well to its appearance *in the content position* of canonical expressions of the judgment, which now takes the possessive form "my". However, it displays some very important specificities. In "I can feel that my legs are crossed", the person picked out as the experiencer of the proprioceptive experience, and the person the felt legs are legs of, are the same. Importantly, the expression of the judgment *actually grasps* this fact. That

[38] The difference between one type of judgment and the other has been expressed by Castañeda (1999, 256) in terms of *external reflexivity* and *internal reflexivity*, full-blown first-person judgments being internally reflexive. Guillot (2016) usefully coins this type of reflexivity *super-reflexivity*. In this dissertation, I will not be drawing on this terminology in particular, although a notion of reflexivity described immediately will be central.

the person picked out as the experiencer and the person the felt legs are legs of are the same is part of what is grasped by the thinker in entertaining the expressed judgment.

Now, crucially, this judgment of somatosensation is a case of full-blown first-person judgment in the sense of involving "I", instead of e.g. "someone", *in the subject position*.[39] It is exactly for this reason that the way in which the relevant fact is expressed – namely the fact that the person picked out as the experiencer, and the person the felt legs are legs of, are the same – is by tokening the first-person pronoun "my" to qualify the felt legs. In other words: "I can feel that *my* legs are crossed" is not prima facie synonymous with "I can feel that *the legs of the experiencer of this somatosensory experience* are crossed". That the definite description in the latter is naturally captured by the expression "*my* legs" in "I can feel that my legs are crossed" is due to the phenomenon described by Perry (1979): I am aware that the person entertaining the judgment, and the person thought of as having the relevant somatosensory experience, are one and the same. Besides, I am aware that this person is myself.

This yields an analysis of what I express when I express *awareness of the body I feel as being my own*, namely when I manifest to have a SBO. In other words, this yields an analysis of what is actually expressed by tokening "my" in the content position of judgments of somatosensation. What is expressed by tokening "my" in the content position in expressing the judgment "I can feel that my legs are crossed" can be decomposed thus: "I can feel that the legs of *the experiencer of this somatosensory experience* are crossed, and *I am the experiencer of this somatosensory experience*".

The moral of this analysis is this: the token of the first-person possessive pronoun in the *content* position in canonical expressions of judgments of somatosensation *contains a reference to the subject of the experience qua subject of the experience*. This is the specific sense in which judgments of somatosensation are reflexive.[40] Recall now the Judgment Formation Goal and the Intuitive Goal introduced in Chapter 1:

[39] In other words, this judgment involves a SEO.

[40] This connects with the Motivating Point made in the conclusion of Chapter 1. There are reasons to think that the SBO is connected to, and is somehow subsidiary of, subjectivity more broadly construed.

[*Judgment Formation Goal*]: any account of the SBO must explain the fact that we self-attribute the felt body for all judgments of somatosensation in which we do so.

[*Intuitive Goal*]: any account of the SBO must specify the SBO in terms that explain the seemingly necessary link that bodily experiences, but not exteroceptive experiences, have with the awareness of the experienced body as one's own.

Explaining the peculiar de se character of judgments of somatosensation, as required by the Judgment Formation Goal, means accounting for the specific kind of reflexivity just described. Besides, as the Intuitive Goal indicates, it means doing so by proposing an explanatory device distinctive enough of somatosensation.

Hence, within the project of accounting for the SBO, advocating either for Judgmentalism or for Experientialism might well depend, in part, of an answer to the following question: is it possible to cash out the *contents* of *bodily experiences themselves* in a way that captures this specific kind of reflexivity? With this question in mind, in this chapter I begin an exploration of the feasibility of a fully experientialist view on the SBO. In particular, my interest lies in exploring the feasibility of the most minimalist form possible of Experientialism about the SBO. Let me now justify the scope of this interest.

On the one hand, *Experientialism* about the SBO seems worth exploring vis à vis what I take to be a prima facie limitation of Judgmentalism. If we can cash out the contents of somatosensory states in terms that fully grasp the sort of reflexivity explained, then we have characterised the content of somatosensory states in a way that reflects the structure that the content of judgments aimed at reporting these states typically has. This dissertation does not directly deal with epistemological matters; yet, one can foresee that this scenario affords a gain in the epistemological front. If this possibility is available, then we have made a step forward to resist the conclusion that judgments of bodily self-attribution are generally unwarranted.

This conclusion arguably is a natural continuation of the very same idea endorsed by Judgmentalists about the SEO: that judgments of self-attribution of mental states we are phenomenally conscious of are generally unwarranted, given the lack of a specific reference to the self as part of any of these states (e.g. Chadha, 2018). Given the pervasiveness of bodily self-attributions in our

mental lives and discourse, steps towards the possibility of resisting this conclusion seem to me desirable. If we can cash out the contents of somatosensory experiences themselves in terms that fully grasp the sort of reflexivity explained, then the possibility of a transition "without gaps" from the experiences to judgments of somatosensation is granted.[41]

On the other hand, the possibility of a *minimal* form of Experientialism is, I think, valuable per se, and hence worth exploring. To recall, on a minimal description, bodily awareness in token somatosensory experiences consists in the sensation as of a *property* instantiated in a *location*. For instance, one can feel the Position of one's arm, the Movement of one's feet, or the Throbbing of one's temples, all of which are qualitatively rich experiences. Participants in the debate on the SBO generally agree on this assumption. A minimal form of Experientialism is one that demands as parsimonious a content to bodily experiences as all authors addressing the problem of the SBO agree on. As far as I see, if this parsimonious content yields an account of the SBO, then that it does is interesting by itself.

For this reason, in this chapter I start the inquiry into this possibility by analysing views on the SBO that are committed only to this minimal set of aspects to the content of bodily experiences, namely Deflationist Accounts. In two separate sections, I put forward the main tenets of the analyses of somatosensation presented by Spatial Deflationism and Property Deflationism respectively. I will argue that, *as they stand*, these forms of Deflationism do not meet the Judgment Formation and the Intuitive goals. Throughout the chapter, however, I will stress the aspects of each of these views that, I submit, do yield a complete account of the SBO if considered jointly.

2.2. Spatial Deflationism[42]

In this section, I critically address one type of Deflationism. In particular, I engage with several proposals in the literature according to which the SBO is to be spelled out in terms of the *spatial content* of bodily sensations. The first spatial account that I will assess was put forward by Martin (specially Martin,

[41] A much more involved discussion of the reasons not to opt for Judgmentalism about the SBO is offered by de Vignemont (2018, Chapter 1, section 1.2). Her reasons concern the incapacity of this sort of views to account for the RHI and disownership syndromes.

[42] The material in this section draws on my paper "The Bounded Body. On the Sense of Bodily Ownership and the Experience of Space", forthcoming in M. García-Carpintero and M. Guillot (eds.), *The Sense of Mineness* (OUP).

1995; but also Martin, 1992 and Martin, 1993). The second account is Bermúdez's (1998, 2017) version of Spatial Deflationism. Finally, I will also mention in this context de Vignemont's (2007) view, presented as a continuation of Martin's proposal.[43] Each in their own specific way, all three proposals give a central role to the notion of a *sense of boundedness* in accounting for the SBO. The following thesis generally expresses what is common to these views:

> [*Boundedness Thesis*]: the SBO consists at least partly of the fact that, when having bodily sensations, the body is felt as having certain boundaries.

In line with the idea that bodily experiences involve awareness of *bodily* space, in that they involve being aware of properties instantiated *in the body*, the Boundedness Thesis stresses the relation that seems to hold between perceiving properties as instantiated in a given body, and singling out this body in the experience. The latter plausibly means perceiving the limits of the relevant body with respect to other physical objects or to its surroundings. The Boundedness Thesis says that the SBO consists at least partly of this awareness of the bodily boundaries, or of the body as a bounded object.

In the subsections below I distinguish two different specifications of the Boundedness Thesis. The first, defended by Martin, focuses on the following phenomenological datum: the felt localisation of properties in somatosensation *entails* a sense of the boundaries of the body. Each of the points in space where the properties are felt to be localised contribute to the delineation of a figure, and this figure is that of the body for which one has a sense of ownership. Crucially, on this view, we have a sense of ownership for the relevant body in virtue of being aware of the delineation. Here is a more specific formulation of this view:

> [*BT-First Version*]: the experienced location of the properties felt in bodily sensations entails awareness of the body as bounded. The SBO consists of this awareness of the body as bounded.

[43] De Vignemont's view on the SBO has evolved very significantly since 2007. In this section I will refer to her 2007 view because it is connected to a type of Spatial Deflationism. I will refer to it with the aim of shedding light on what seem to me compelling reasons to go beyond it.

It has actually been disputed that Martin's discussion of the sense of boundedness were originally aimed at the sort of explanatory project about the SBO that I have described in Chapter 1. Bermúdez (2017, fn. 8), for instance, claims that Martin seems to treat the awareness of the body as bounded more as an explanandum than as an explanans. On these grounds, Bermúdez disregards Martin's view in his taxonomy of accounts aimed at grounding judgments of ownership.

To my mind, however, there is textual evidence that Martin should be read as one of the main interlocutors in this debate. Martin (1995, 273) introduces his analysis of the SBO by saying that "[t]his phenomenological quality, that the body part appears to be part of one's body – call this a *sense of ownership* – is itself in need of further elucidation". After offering his own elucidation in terms of a sense of boundedness, he claims that "[t]his account of the sense of ownership *explains* how our bodily experiences can have as part of their phenomenological content that the region falls within one's own body" (my emphasis). Assuming that Martin acknowledges the uncontroversial existence of judgments of ownership, the analysis of "the phenomenological content" of bodily experiences in terms of a sense of boundedness, framed as an analysis of the "appearance" that felt bodily locations fall within one's body, seems to me to stand exactly as the type of proposal that would ultimately explain that judgments of ownership occur. This seems to me to be so, may we interpret "appears" in the first quoted extract as a phenomenally loaded notion – as Martin's own phrasing suggests –, or as involving a more neutral notion of awareness.[44]

On the other hand, Bermúdez's spatial proposal falls under a slightly different version of the Boundedness Thesis. This version of the thesis was arguably advanced by de Vignemont (2007). These authors also endorse the phenomenological datum that having bodily experiences involves a sense of the boundaries of the body. Yet, they point out that the phenomenally conscious localisation of the felt properties is ultimately explained by the subject's possession of a representation of the body: one has a map of one's own body, and when having bodily sensations, one pinpoints various locations within it. This allegedly makes the boundaries of the represented body, namely one's own, phenomenally salient. By locating spots within a map, sensations

[44] De Vignemont (2007, 2013, 2018) and Gallagher (2017) seem to share my reading of Martin's proposal, since they do take him to be an interlocutor in the debate on the SBO, understood as I have defined it.

convey a sense of the limits of the map, as well as of what the map represents. Straightforwardly put, the second version of the Boundedness Thesis says the following:

> [*BT-Second Version*]: subjects possess a representation of their own body as a bounded volume. When having bodily sensations, properties are experienced as localised within this representation. In virtue of this, when having bodily sensations subjects experience the body as a bounded whole. The SBO consists, at least partly, of the awareness of the body as bounded.

BT-Second Version adds to BT-First Version the appeal to a bodily representation. As a type of Experientialist Account in the spirit of the Boundedness Thesis, it assumes that the sense of boundedness involved in bodily sensations plays a crucial role in accounting for the first-person figuring in the content position in judgments of somatosensation. Yet, it claims that the relevant bodily representation carries out further explanatory work by accounting for the fact that bodily properties can be felt as localised, and in particular as localised within what is felt as one's own body.

Without further ado, I shall now discuss each of these views in turn, assessing them under the light of the basic desiderata defined in the previous chapter.

2.2.1. On the Felt Bodily Boundaries

In order to address BT-First Version, we first need to spell out the idea that the experiences of, for example, a prick in the toe or a tickle in the nape of the neck, entail awareness of the body as bounded. Mike Martin develops this point thoroughly. A natural way to present it is to start from the description of the peculiarities of the phenomenology of haptic touch, to eventually notice that its core feature, namely the awareness of boundaries, shows up in all bodily experiences at least to some degree. This is how I shall proceed.[45]

[45] In the following paragraphs I stick to Martin's description of haptic experiences, which fits what de Vignemont and Massin (2015) have called a *template* model of touch. De Vignemont and Massin discuss this model, and put forward the alternative *pressure theory* of touch, according to which touch consists in the *direct* perception of pressure and tension. The criticism I develop in this section focuses specifically on the role that the awareness of the bodily boundaries can have in an account of the SBO. As far as I see, the involvement of an

In haptic perception, one perceives objects through touch by directly exploring them in an active and controlled way. Haptic touch typically unfolds over time and involves a range of bodily movements, the experience finally comprising cutaneous stimulation along with motor feedback (Fulkerson, 2014, 6). Feeling the irregularities of the edge of a table by caressing it with the fingertips, for instance, is a case of haptic touch. Haptic experiences are mainly object-directed, in that one engages in them to perceive the properties of objects other than the body. Yet, their content is typically said to be dual: it involves awareness both of external objects and of the body. When touching the surface of my worktable, not only do I feel the roughness of the wood, but also I am aware that my fingers are depressed by the contact and pressure of the table against them.

The relation between exteroceptive perception and bodily awareness in touch is not uncontroversial.[46] In what seems a neutral enough claim, however, we can say that the tactually accessed properties we are aware of in haptic experiences will be attributed, in judgments about these experiences, to two different entities: the touched object – the Rough table – and the body – namely fingers being Depressed. Reporting the experience in one way or the other involves an attentional shift. Either one attends to the object, as seems more natural in exploratory touch, or one makes an attentional effort and focuses on the body felt while touching.[47] Pursuing this attentional effort, a description of the phenomenology of bodily awareness in haptic touch will plausibly include the idea that "[o]ne measures the properties of objects in the world around one *against one's body*" (Martin, 1992, 203. My emphasis). Haptic perception crucially involves the experience of contact between body and objects: the bodily awareness involved in it is the awareness of the limits of the body in correlation with the pressure of objects against them. In this sense, touch is a clear case of a bodily experience in which the awareness of bodily boundaries is phenomenally salient. Feeling the fingertips in exploring the surface of the table implies becoming aware of their silhouette.

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awareness of the bodily boundaries in touch is compatible, as well, with the pressure theory. Any theory of touch that intended to exploit the phenomenological datum of a sense of boundedness for an account of the SBO is susceptible to be targeted by my considerations in this section.

[46] See Fulkerson (2014), Chapter 4, for a careful review of different views in this respect.

[47] In Martin's (1992) analysis, exteroceptive awareness in touch is a result of attending to bodily awareness in a certain way. See Fulkerson (2014) and Scott (2001) for comments on Martin's view. See also Husserl (1989) and Katz (1989) for related claims about the role of attention in unfolding the duality of touch.

On Martin's account, this invites a reflection on the role of a *sensory field* in touch, which he contrasts with the function that the sensory field has in sight. As Martin puts it, "[n]ormal visual experience is essentially experience of objects as they fall within the visual field; tactual experience is essentially experience of objects as they press from the outside onto the limits of a felt sensory field" (ibid., 210). While the sensory field in sight is the visually perceived area within which objects are distributed, the objects of touch appear in virtue of our awareness of certain bodily regions that, exactly matching the shape of perceived objects, constitute the field. To the extent that the sensory field is identified with the dimension of bodily awareness of the experience, the perception of objects involved in it will properly be described as that of something that falls *outside* of the field.

Indeed, tactile experience typically involves awareness that the touched object *is not* the body. More generally, "…the cutaneous sense field is only a tactual field containing objects of touch in as much as it is embedded within a *space* which extends beyond any such field" (ibid., 209. My emphasis). Touch qua bodily sensation involves the awareness of bodily boundaries, which in turn equates to the awareness of such boundaries standing out against a wider space. This turns out to be, on Martin's account, a common feature of all bodily sensations.

It is rather straightforward to see how these considerations generalise to other bodily experiences. Consider the situation in which you raise your hands above your head and are kinaesthetically aware of their relative position (1995, 271; 1993, 212). You feel your hands by having kinaesthetic sensations from them, which means that they seem to extend to at least the point in space where you feel sensation (1993, 210). This awareness thus consists of an awareness of how the hands are placed within a space that goes beyond that in which you actually feel them to be – since it implies feeling the hands as outlined. By appealing to the awareness of boundaries, the idea of the dual content posited for tactile experiences is generalised mutatis mutandis. To the extent that somatosensory qualities are grasped as localised somewhere in the body, they count as signalling the points to which the body extends, namely where its limits are and where the space in which it is inscribed begins. An acute prick in the toe indicates a particular point beyond which there might be a thorn; a tickle in the nape of the neck conveys a sense of there being an immediately contiguous area in which the air is moving in an unusual way.

By now we have clarified part of BT-First Version by spelling out the claim that experiencing the body through localised bodily sensations entails an awareness of it as bounded. Let us assume that this description of the experience of bodily space is accurate. I shall now discuss the central claim of this version of the Boundedness Thesis, namely that the SBO *consists of* the awareness of the body as bounded.

The view under consideration states more specifically that "wherever a sensation feels to be located, *one's body appears* to extend to at least that point in space" (1993, 210. My emphasis). The boundaries are the limit between what one feels as the own body and what is felt as other. When, exploring my worktable, I switch the focus of attention from the texture of the wood to the sensation on the fingers, what I am actually doing is switching attention from what is going on beyond one of *my* boundaries to what goes on beneath it (1995, 270). This is how BT-First Version is finally defined: the experienced location of the properties felt in bodily sensations entails an awareness of boundaries that is awareness of *my* body as bounded. Martin's account is rounded up by the observation that, typically, bodily sensations only involve the body that is *in fact* one's own. This plays a crucial role in his definition of bodily sensations as perceptual: when we genuinely perceive a body, then it can only be our own.

Up to this point, the view certainly conveys a descriptive analysis of the bodily experience of space. In particular, it proposes a notion of sensory field that involves awareness of objects outside of it. In close connection with this, it specifies the Cartesian intuition that I am not present in my body as a sailor in a ship (1996, 81): contrary to how the sailor presumably experiences the properties of the ship she is in, the spatial distribution of somatosensorily felt properties is such that they fall within what I feel as *my own* space.

However, the claim that we experience certain regions at one of the sides of certain perceived boundaries will not be particularly explanatory unless it is further substantiated in a way that, conceptually, is sufficiently independent from the very notion of bodily ownership. The notion of a boundary the relevance of which stems from the fact that it appears as the limit between what is felt as one's own body and what is felt as other seems unsatisfactory in this respect. For, we could still ask: on what grounds does the subject take the body on one of the sides of the boundary – the body instantiating Depression in the worktable example – to be her own in the relevant sense, while taking the object on the other side – instantiating Roughness – not to be hers? Why

should either side of the perceived boundary have the special import it has? Considerations along the lines that bodily sensations only involve, at one of the sides of the boundary, the body that is *in fact* our own, are tangential to this question: on the one hand, because a view that grounds the SBO on this fact is likely to leave unexplained the illusory cases in which the body part one is aware of as one's own does not exist. On the other hand, and in connection with the former, because we are concerned with the *phenomenal* counterpart of the first-personal characterisation of the felt body, and this might depart from how things actually are.

At this point, one might worry that I am missing the point about what deflationary views are supposed to be. The SBO *just is* the sense that one's own body extends up to certain boundaries: "for me to feel as if some part of my body occupies a region of space… is for it to seem to me as if that region falls within one of the boundaries of my body" (Martin, 1995, 270). This certainly deflates the SBO, and it is misplaced – the worry goes – to demand, of an account of what it is to feel a particular bounded body as my body, that it be conceptually independent of the notion of ownership.

As far as I see, this objection itself involves a misunderstanding regarding what is essential to Deflationism. Insofar as we are dealing with Experientialist Accounts, the phenomenological analysis of sensations must be sufficient to explain why, given a bodily sensation, we typically use a first-person pronoun to describe its content; and Deflationism is supposed to do so without appealing to a specific mineness component. In particular, in the view at stake it must be the representation of space, independently described, which explains its manifesting itself first-personally in judgment. The fact that we experience properties on what is felt as *our own* side of a boundary does not meet this independence constraint.

The proper way to defend BT-First Version would be to show that the bare description of bodily sensations in terms of perceived properties distributed in space so that they delimit boundaries can do the expected explanatory work. This is what I want to question immediately in what follows. On my view, this description falls short of explaining why we tend to report the relevant experiences in first-personal terms. This is clear if we observe that the notion of a sense of boundedness, with its corresponding duality, is involved as well in episodes of visual perception whose contents we do not self-attribute.

Husserl noted that visual experience is such that at every moment we are aware that the world extends beyond what is actually falling within our visual field at that moment (1983, §27).[48] An anticipation of subsequent perceptions seems to be built into the content of each particular perception, as follows: the visual field is experienced as related to other regions of space of which we are aware in a different way, and to which we might or might not eventually turn our attention – such as, for example, the region behind our bodies. It doesn't seem far-fetched to claim that objects with properties are distributed within the visual field to fill it up to its boundaries, which delimit it with respect to other non-actually-perceived regions of space. This questions the sufficiency of such a description of spatial experience to explain what it is that makes us typically judge that one of the sides of the perceived boundaries in bodily sensations is *our own* in the relevant sense, in contrast to what occurs with the space and objects we represent visually – that is, those we perceive as falling *within* the visual field. Objects and space falling within the visual field, namely within the currently-visually-perceived side of the seen boundary, can perfectly be such that we do not self-attribute them.

Summing up, what we have up to now is this. Once postulated, as Martin does, that not only the body belongs to the content of somatosensation, but also objects and space adjacent to it, via our awareness of the bodily boundaries, then our question becomes why any of the objects and regions of space perceived in somatosensation is *the designated* one: in virtue of what is one of the perceived objects, and not the others, taken to be *my own* body? I have claimed that an answer such as "because it is felt *as mine*" shouldn't in principle be available to Deflationism. By the same token, neither should be the answer "because it is the body on *my* side of the perceived boundary". The latter seems to be the suggestion of the kind of Deflationism now discussed, provided with the notion of a sense of boundedness. Without such an appeal to a primitive mineness component, however, the general similarity just described between somatosensation and visual perception is a threat to the proposal.

The problem just explained can be put in terms of our initial aims. BT-First Version fails at meeting, on the one hand, the Intuitive Goal: there doesn't *seem* to be a necessary link between having visual experiences and self-attributing their contents, even if a sense of boundedness is plausibly part of their phenomenology. Hence, BT-First Version's specification of the SBO

[48] Dokic (2003, 326) also appeals to this idea through Merleau-Ponty to discuss Martin's view. However, his point is different from the one I make here.

doesn't pick up a distinctive enough element of bodily experiences vis à vis exteroception to account for the compelling involvement of the first-person in the former. On the other hand, by the same token, the view falls short of the Judgment Formation Goal. The notion of a sense of boundedness doesn't suffice to explain why bodily sensations are expressed first-personally, since a sense of boundedness is generally involved in visual experiences which do not yield judgments in which we self-attribute visual contents. Besides, note that a consequence of BT-First version is that, necessarily, if a subject has a localised sensation, she will feel the body part where it is localised as her own. Somatoparaphrenia constitutes a powerful counterargument to this (de Vignemont, 2013). Hence, it is also doubtful that BT-First version meets the Empirical Goal.

At this point, the defendant of BT-First Version could call attention to the notion of *sensory field*, certainly appealed to as part of her defence of a sense of boundedness. Her suggestion might actually be the following. The body is *the designated object* of somatosensation because it has a special status with respect to any other object belonging to the contents of somatosensory experiences: that is, it has the status of a sensory field. This, she might point out, establishes a disanalogy between the sensory fields of sight and somatosensation. Parts of Husserl's and Martin's respective descriptions of the visual and the tactile fields are of use to convey this disanalogy. In Husserl's words, in the visual case "I can let my attention wander away from the writing table which was just now seen and noticed… to all the Objects I directly 'know of' as being there and here in the surroundings of which there is also consciousness" (1983, §27). In vision, I am aware of an environment standing beyond the currently perceived visual field which is in principle *visually* accessible. In other words, visual perception involves awareness of the fact that one could perceive what currently stands at the other side of the boundary of the visual field *in the same way* as one perceives what falls within it.[49] Objects in the environment can, as it were, enter into the field of vision, and thereby be visually perceived. In contrast, in bodily sensations "the sense of falling within a boundary may be no more than the sense that the location in question is within a space that

[49] Interestingly, for Husserl this is correlated with the subject's kinaesthetic awareness, which indicates her possibilities for action (1997, Section IV; 1989, Section I, Ch. 3). The relatively recently vindicated Gibsonian notion of affordance (Gibson, 1986) incorporates this point. On the connections between the Husserlian and the Gibsonian analyses of visual perception, see Zahavi (2002).

seems to extend into regions that one *could not* currently be aware of *in this way*" (Martin, 1995, 271. My emphasis).

Pulling this thread, the defendant of BT-First Version might want to insist that there is no object in vision that has a role akin to the role the body has in somatosensation; that the body is the designated object of somatosensation because one is aware of it *in a way in which one could not be aware of* any other object, this being part of the content of token somatosensory experiences. This peculiarity of the subject's awareness of one side of the boundary in contrast with the other could then ground the SBO – the suggestion goes.

I find this line of argument very promising. In fact, my own proposal on the SBO in Chapter 3 of this dissertation exactly exploits and articulates this very idea of the spatial deflationist. My contention, however, is that a story needs to be told about why the status of the body as a sensory field makes it stand out with respect to other objects of somatosensation *in a way that is at all relevant to the first-person and self-awareness*. In Chapter 3 I put forward a proposal to this effect. Importantly, my proposal will be informed by the moral of the present section: if one claims, as Martin does, that all there is to the SBO is a peculiar representation of space, specified in terms of awareness of boundaries and properties perceived as instantiated at sides thereof, then ultimately one does not capture the reflexivity intrinsic to the SBO. On my view, the perception of boundaries is part of what is needed to motivate the special status of the body with respect to other somatosensorily perceived objects. Yet, it is not sufficient to explain the fact that we self-attribute, as we do, only the object at one of the sides of these boundaries.

2.2.2. The Role of Bodily Representations

The points just made about Spatial Deflationism do not in principle rule out the possibility that a more sophisticated account of spatial representation in bodily sensations can meet the goals set for theories on the SBO satisfactorily. Informed by empirical evidence that disputes the adequacy of a view based only on the phenomenology of bodily sensations, BT-Second Version adds a further element to the picture. To recall, BT-Second Version reads thus:

> [*BT-Second Version*]: subjects possess a representation of their own body as a bounded volume. When having bodily sensations, qualities are experienced as localised within this representation. In virtue of this, when

> having bodily sensations subjects experience the body as a bounded whole. The SBO consists, at least partly, of the awareness of the body as bounded.

On this version of the Boundedness Thesis, a sense of boundedness identical to a sense of one's own boundaries is still crucial in accounting for the SBO. I just discussed the limitations of an appeal to this phenomenological datum alone as a deflationist strategy on how self-attribution of the felt body is possible. BT-Second Version offers a further explanatory tool: what ultimately grounds the subject's awareness of the felt boundaries as her own is that the properties felt in bodily sensations are pinpointed within a representation of what is in fact the subject's own body. The relevant representation putatively explains why the awareness of boundaries that follows from the location of sensation involves a phenomenology of ownership: by falling within the representation, the boundaries made salient by the location are those of the subject's actual body.

I move on now to assessing this version of the Boundedness Thesis. Generally speaking, my aim is to point out the limitations of the appeal to spatial bodily *representations* in the context of Deflationism about the SBO. More specifically, I will point out that this appeal does not save Spatial Deflationism from (a version of) the problem that I have just described for Martin's account.

It is generally accepted in debates on bodily awareness that embodied subjects deal with different representations of their bodies – representations cashed out here minimally as mental resources that track the state of the body and encode it. The content of bodily experiences relies on representations of the body that are multimodal, resulting from the integration of visual, proprioceptive, and vestibular information (de Vignemont, 2014). Elaborating on some of the theses about bodily self-consciousness already advanced in his *The Paradox of Self-Consciousness* (1998), Bermúdez (2017) presents a proposal on how space is represented in bodily experiences, now explicitly inscribed within the debate on the SBO. In his own words, Bermúdez aims at describing the "experienced spatiality of the body" (122), to which he ascribes the role of ultimately explaining judgments of somatosensation.

It is fair to note for a start that, strictly speaking, Bermúdez does not articulate his view explicitly in terms of bodily *representations*: that is, the term

"representation" is not central in his paper. On a general description, though, he cashes out the content of bodily sensations as conveying certain bodily properties as localised within a relatively stable background by reference to which this location can be specified. I think this speaks in favour of reading his view as falling under BT-Second Version. In what follows, I start by motivating this reading of Bermúdez's view in detail. I then proceed to assessing the view under the light of our initial desiderata.

The first feature that Bermúdez proposes as distinctive of our experience of space in bodily sensations has clear echoes from BT-First Version. He calls it *Boundedness*, and it reads thus: "Bodily events are experienced within the experienced body (a circumscribed body-shaped volume whose boundaries define the limits of the self)" (124).[50]

Boundedness puts three elements into play. Firstly, the bodily events conveyed to the subject by her experiences. Secondly, the *experienced body*. Finally, a relation between both: bodily events are *experienced within* the experienced body. Via a preliminary definition of the experienced body, Boundedness finally states that, in bodily sensations, bodily events are experienced as localised *within a body-shape volume whose limits define the limits of the self*. A plausible way of interpreting Boundedness, and in particular the appeal to a limited "self", is as an acknowledgment of the fact that bodily events, as conveyed by bodily sensations, typically seem to take place within what one takes to be one's own body.

Judging by Boundedness, it seems clear that the notion of *experienced body* will be crucial to Bermúdez's view. One first thing we know about the experienced body is that it is an area such that, may perceived bodily properties be localised in it, this results in the self-attribution of the body (part) experienced as instantiating the properties. In particular, the experienced body is a *circumscribed* area with this feature. Bermúdez also indicates that "[t]he boundaries of the bodily self in the experienced body can extend beyond the limits of the physical body" (124). Hence, the experienced body is an entity that tracks the physical body, and can do so accurately or inaccurately. In particular, it can include parts that do not correspond to actual bodily parts. An example of this would be phantom limb experiences. Finally, the boundaries of the experienced body, even if relatively fixed at any given moment, are

[50] Bermúdez talks about bodily *events* instead of bodily *properties*. In my comment of his view, I will use one or the other indistinctly, assuming bodily events to be instantiations of properties by a body.

malleable and adaptable over time, responding to organic bodily growth, trauma, and demands on movement and action (125).

Note that these features of the experienced body are still neutral with respect to the following two possible readings of Boundedness:

(i) For any occurrent bodily sensation conveying localised bodily properties, the limits of the body-shaped self extend to the point where the properties are experienced to be localised. This "owned" extension *is constituted* by the occurrent perceptions of bodily properties and events.

(ii) Bodily sensations convey bodily properties as localised within a background by reference to which their location can be specified. This background *is not necessarily constituted* by occurrent perceptions of bodily properties and events.

Reading (i) would be a reading of Boundedness along the lines of Martin's thesis, namely as falling under BT-First Version. In contrast, reading (ii) would be a reading of Boundedness as falling under BT-Second Version. To my mind, the second feature that Bermúdez puts forward as defining the experienced spatiality of the body in conjunction with Boundedness speaks in favour of reading (ii). This feature is what he calls *Connectedness*: "[t]he spatial location of bodily events is experienced relative to the disposition of the body as a whole" (126).

Connectedness specifies Boundedness in terms of how exactly perceived bodily properties are localised within the experienced body: in relation to the disposition of the rest of the body-shaped volume. Bermúdez develops Boundedness and Connectedness in a somewhat technical way through his notions of A-location and B-location, which clarify each feature respectively. The A-location of a bodily event is the location in a specific body part that this event is felt to have relative to an abstract map of the body, without taking into account the actual position of the body as a whole. The B-location of a bodily event, in contrast, is its location in a particular body part, where the specification of this location takes into account the position of other relevant body parts. He proposes that in bodily experience the body is represented, in terms of A and B locations, as a system of generalised cones: the location of a given bodily event in a given limb is to be specified as within a cylinder whose origin is at the midpoint of the joint immediately controlling the position of

that limb (A-location), as well as by "supplementing the A-location with a chain of relative joint angles that collectively specify the location of the given limb relative to the immoveable torso" (B-location; 136).

Technical details aside, the spirit of the proposal is that, for each bodily sensation we are conscious of, we do not experience the relevant bodily properties or events in isolation, but as nodes of a network of other bodily locations. Consider any given bodily experience E, taken by the experiencing subject to indicate bodily property P as occurring in L. Bermúdez's proposal says that the content of E should be specified both in absolute terms, as conveying P as localised within a given limb, and in terms of P's location relative to various other bodily locations L_1, L_2…L_n. The system made up by L_1, L_2…L_n is therefore relevant to specifying the content of E, and in particular L, whereas it is not identical to L.

Bermúdez does not go into detail as for the relation, at any given moment, between L of a given experience E, and the system L_1, L_2…L_n, made up by other bodily locations. It is not clear, for instance, if the centrality of the latter to the specification of the content of E has to do with attentional distribution in any relevant sense. In any case, the distinction between L and the system L_1, L_2…L_n elicited by his view arguably introduces two aspects to bodily experiences that bear a foreground-background relation respectively. Locations L_1, L_2…L_n plausibly make up the experienced body. The experienced body, let us recall, is the body-shaped volume *within which* currently perceived bodily events are localised: an extended, yet delimited whole that typically maps the physical body of the experiencing subject, and which can do so accurately or inaccurately. Bodily experiences partly gain their spatial content, L, because L is localised within the system made up by L_1, L_2…L_n. In virtue of this relation, by having any bodily experience E subjects are aware of the body as a whole (Connectedness), and in particular as a bounded whole (Boundedness). Crucially, this analysis is put forward as an account of the SBO: the SBO consists of this sort of spatial experience.

As far as I see, this squares with BT-Second Version:

> [*BT-Second Version*]: subjects possess a representation of their own body as a bounded volume. When having bodily sensations, qualities are experienced as localised within this representation. In virtue of this, when having bodily sensations subjects experience the body as a bounded

whole. The SBO consists, at least partly, of the awareness of the body as bounded.[51]

In this context, the notion of experienced body putatively holds the explanatory burden with respect to the SBO involved in token somatosensory experiences. To repeat, the notion is introduced via Boundedness, according to which "[b]odily events are experienced within the experienced body (a circumscribed body-shaped volume *whose boundaries define the limits of the self*)" (my emphasis). I rephrased Boundedness as the claim that all bodily events are felt as falling within *one's own* bodily boundaries. Note that this makes Bermúdez's view a clear specification of the Boundedness Thesis. Besides, by Connectedness, we know that this body-shaped volume is experienced as a *continuous* whole. The view finally is that the properties felt in token bodily sensations gain their first-person component in virtue of being related to the experienced body in this way.

At this point, however, a worry arises: in what sense does the experienced body *exactly* involve the first-person, so that all bodily sensations can be said to involve a *phenomenology* of ownership *because* they are localised within it? What is it exactly for the experienced body to represent a body *as my own*? Addressing this worry is crucial to an account of the SBO along the lines of Boundedness and Connectedness that is substantive. If the worry is not addressed, then the resulting view is plainly the following: all bodily events felt as falling within a certain region are felt as events of our own body, because their location makes salient the limits within which all events are felt as events of our own body. This, it seems to me, is uninformative.

On these grounds, it is fair to expect that the notion of experienced body be further substantiated so as to yield a satisfactory answer to the worry. In what follows, I propose two substantiations of the notion that seem to possibly be in line with Bermúdez's approach. On the one hand, Bermúdez might think of the experienced body as a *conscious* representation – for instance, as the background of sensations phenomenally manifest to the subject when

[51] In Bermúdez's version of BT-Second Version, it becomes relevant that the SBO consists of the awareness of the body as bounded *at least partly*. Indeed, the fact that the bodily boundaries are salient when having a bodily experience is relevant in his account: in virtue of this, we are aware of our body as a whole, namely as a bounded object. According to Bermúdez it is conceptually possible that bodily events are experienced within a space that delimits the self, and yet in isolation from everything else going on in that space (126). But this is anyway not the case in normal conditions. A complete description of spatial experience in somatosensation, Bermúdez says, needs to include Connectedness.

she has a focally attended occurrent bodily experience. Or, on the other hand, he might take it to be an *unconscious* representation, relevant to a proper specification of the location of any focally attended bodily experience, but yet not necessarily manifest to the subject when she is having the experience. I will address these two options in turn, and argue that none of them yields a satisfactory answer to the worry. I will thereby argue that neither of them yields an account of the SBO that meets our desiderata.

The fact that Bermúdez calls his proposed representational device *experienced* body can be taken as evidence in favour of the first option. In fact, if as Connectedness demands we want specific bodily events to be *experienced relative to* the body as a whole, it is reasonable to think that at least part of the rest of the body besides the relevant bodily event will be somehow simultaneously experienced at the moment at which the event is perceived. Put otherwise, it seems plausible that, if our experience as of a's location necessarily is an experience as of a's location relative to b, then by being aware of a's position we are in some sense aware of b's position too. Bermúdez's own words can be read as suggesting this line of elaboration, as he points out that "bodily events are experienced within a holistic framework that, although sometimes recessive, is normally an ineliminable part of the content of experience" (126), and there is no obvious reason not to take recessive awareness to be a form of awareness proper. A full elaboration of this proposal would involve, for instance, a clarification of the sense in which we are *conscious* of the location of the relevant bodily event, vis à vis the sense in which we are *conscious* of the various other locations that make up the experienced body, for instance along the lines of a scale of attentional distribution.

We do not need to get into these details here, though. The basic lines of the view I am now considering are the following. For any given bodily sensation, the relevant bodily property is experienced as localised within a bodily representation; and by having the sensation, we are simultaneously conscious of various other bodily locations constituting the representation. Hence, token bodily experiences gain their spatial content partly by reference to other experiences of the same type. In virtue of this, we are conscious of (some of) the bodily boundaries *because* we experience the boundaries of the relevant representation. By being aware of the bodily boundaries, we are aware of the boundaries of *our own* body.

As a description of the experience of space involved in token bodily sensations, this is certainly more detailed than Martin's, and actually

encompasses it. However, is Connectedness by itself a step forward in the project of explaining the SBO, with respect to the phenomenological description of bodily sensations already provided by Boundedness? To my mind, there is at least one reason to doubt so.

For one thing, it seems reasonable to claim that, if we are conscious of the experienced body as a whole when we have a bodily sensation, it is at least partly because we are *somatosensorily* conscious of it, even if recessively. Hence, on this reading of the view, the experienced body is constituted by (the spatially loaded content of) a set of conscious bodily experiences E_1, E_2…E_n. In other words, the representation to which we are appealing as *providing* each token bodily sensation of its spatial content and thereby of its phenomenology of ownership is itself constituted by conscious bodily sensations. Consider so a bodily experience E taken by the experiencing subject to indicate bodily property P as occurring in L. The view says that E involves a SBO *because* it is embedded within the system constituted by (the spatially loaded content of) experiences E_1, E_2…E_n. But any of the experiences constituting the experienced body is liable to the question about where it gets it "ownership load" from – and note that, for every case, an answer might have to mention E and its content L. Hence, despite the plausibility of the description of the phenomenology of bodily space in terms of determinate locations within a spatially loaded network, it is simply difficult to see how the set of bodily experiences works as an explanatory touchstone regarding the phenomenology of ownership putatively involved in each of its constituents, unless such phenomenology is a relatively unexplained emergent property of the system.

With these remarks on the table, let us move on to the second substantiation of the notion of experienced body. On this reading, token conscious bodily experiences involve a SBO because they are inscribed within an unconscious representation of the body as a whole. Bermúdez himself indicates that the existence of structural limits to bodily awareness, grasped by Boundedness and Connectedness, is grasped as well by O'Shaughnessy's (1995) notion of long-term body image – "an *implicit* understanding of the large-scale, structural properties of the body" (Bermúdez, 2017, 127. My emphasis). Inspired by this suggestion, I will model the notion of an unconscious experienced body on O'Shaughnessy's long-term body image.[52]

[52] The idea of there being relatively fixed body maps that offer the frame of reference for the localisation of bodily sensations is rather pervasive in the literature. For instance, de Vignemont (2018, 86) endorses the claim that there is a bodily map that is "the background on

O'Shaughnessy (1995) defines the long-term body image against the backdrop of what he calls *short-term body images*. On his view, there are three varieties of short-term body image:

> (α) the actually *proprioceptively perceived* at a given moment: it changes with bodily posture, distribution of attention, and intentional bodily occupations.
> (β) the *proprioceptively perceptible* at a given moment: the image we would arrive at by distributing attention all over the body while it remains in one given posture.
> (γ) the *potentially perceptible* at a given moment: the image we get if we take the content of (β) at the moment and augment it with all the points that might in principle come to consciousness were a highly localised tactile sensation to occur at that point.

Type (α) is the only realisable short-term body image, whereas (β) and (γ) are abstractions constructed on the grounds of the specific realisations of (α) at any given moment. The three of them are the (possible) outcome of bodily posture, in the sense of "whatever mind-impinging phenomena posture regularly causes" (187), usually proprioceptive *sensations*. Specifically, (α) is mainly determined by those sensations that attentionally stand out.

O'Shaughnessy observes that (α), (β), and (γ) have an overlapping spatial content that matches the physical body. Let us call this content C. The *long-term body image* is hypothesised as a psychological entity ("something at least cerebral"; 195), with relatively fixed content C, mostly innately determinate although malleable, which has the function of *providing the short-term body images with their spatial content* at any given moment, when supplemented with the postural sensations at that moment. It is crucial to the notion of a long-term body image, and in particular to its distinction with respect to the short-term body images, that *experience* is not built into it. If, speaking loosely, we were to say that the long-term body image has to do with how one *seems* to oneself to be in certain spatial respects, O'Shaughnessy insists that "[w]hatever variety of seeming it is that we are talking of, it can be none of the familiar psychological

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which bodily sensations are experienced, their spatial frame of reference." The exact nature and further functions of the relevant map are disputed, though. My aim in this section is limited to discussing that a map posited to fulfil the function of spatial frame of reference is suitable to *ground* the SBO.

'seemings': it is not a perceptual experience of a certain shape, nor an imagining-of or imagining-that one is possessed of a certain shape; indeed, it is not any kind of experience at all" (194). On the reading of Bermúdez's view that I am now trying to articulate, the structure of cones that, according to him, fixes the space of the self would have a nature and function akin to that of the long-term body image thus understood.

Of all the body images defined by O'Shaughnessy, the only phenomenally conscious one at any given moment is (α). Let us consider an extension of (α) that encompasses, not only the content of proprioceptive sensations – that is, sensations of posture –, but also that of all occurrent bodily sensations that are relatively attentionally demanding and that eventually inform the subject about the general condition of the body by presenting her with bodily properties in various locations – e.g. a throbbing pain in the temple, a certain tautness in the thigh, or the pressure of the surface of the desk on the forearm. Let us call the resulting image (α') – and consider as well the correspondingly extended notions of (β'), (γ'), and C'. Image (α') plausibly corresponds to what Bermúdez has in mind when he talks about the *conscious* awareness of bodily events at a given moment – taking several bodily sensations at this moment jointly.

Thus defined, the view has it that α' acquires its *spatial* content in virtue of being circumscribed within the long-term body image (or experienced body), with content C'; including the fact that α' conveys a sense of (the relevant) bodily boundaries. The long-term body image, in turn, is unconscious. Boundedness applies straightforwardly, at least in the sense that α' makes salient certain boundaries consistent with the body image. Connectedness might have to be restricted to a description of the way in which the various locations making up α' are experienced: as mentioned above, it seems difficult to make sense of the idea that one is aware of the location of the bodily properties within α' as related to locations constituting a long-term body image of which one is unconscious. Besides, crucially, all experienced bodily properties falling within the limits of the long-term body image are felt as properties *of one's own body*: in particular, all felt bodily properties making up α' are felt as properties of one's own body. In fact, on this view this is putatively *because* they borrow their content from C': the SBO consists of the awareness of the body as bounded and connected made possible by the subject's possession of an unconscious long-term body image.

Here arises a worry, however: how appropriate it can possibly be to say that somatosensory experiences involve a SBO *because* the long-term body

image thus understood provides them with their spatial content. For, in what sense does the long-term body image exactly involve the first-person, so that all bodily sensations can be said to involve a *phenomenology* of ownership *because* they are *localised* within it? I have stated above that the proposal will not constitute a complete account of the SBO unless it involves a satisfactory answer to this worry. And to my mind, the appeal to an unconscious representation can answer the worry only in a limited way.

Speaking generally, it seems that if we posit a bodily map as a tool to explain how, in each token somatosensory experience, I am aware of a bounded body *as my body*, then the relevant map needs to be a representation of my body *as mine*, at the risk of the relevant sensations just being felt to delimit *a* body. Indeed, I might possess a very detailed map of my body, but being aware that the body represented in it is mine is a different and crucial issue. However, it is not at all obvious what it means for the *unconscious*, long term body-image to represent a body as my own, beyond the very fact that the representation elicits the behaviour typically taken to manifest that one takes a certain body to be one's own – for instance, making assertions in which one uses "my" to talk about the felt body –, or the phenomenally conscious mental states that cause this behaviour. But this is precisely the fact that we aim at explaining.

It is therefore difficult to see how a spatial representation of this sort can serve as the ultimate explanatory building block of the phenomenology of ownership putatively involved in token somatosensory experiences. There remains, as it were, an explanatory gap: one between the plain, non-reflexive representation of space, and the reflexive, first-personal, phenomenally conscious outcome of this representation. If it is not clear how token bodily experiences can acquire their putative "ownership load", then it is not clear how we can cover the Judgment Formation Goal while remaining in an experientialist framework. Note that this is so even if the representation of space at stake – the long-term body image, in this case – is exploited exclusively by bodily sensations.

The defendant of (this version of) Spatial Deflationism might be ready to put forward now her recalcitrant objection: the sort of explanation I am seeking simply builds too much into the notion of a phenomenology of ownership. Spatial *deflationists* about the SBO, the objection goes, only aspire to claiming that the SBO *simply is* a certain type of experience of space – in particular one involving the long-term body image as grounds for sensations whose phenomenology is characterised by Boundedness and Connectedness.

Whenever a bodily self-attribution shows up in a judgment of somatosensation, and does so in a seemingly compelling way, this indicates that this type of spatial experience is in place.

By proceeding in this way, the spatial deflationist is offering an a posteriori identity between the SBO and certain facts about spatial representation. This sort of identity is indeed informative: talk about how space is represented in bodily experience adds up to the details of the phenomenon that we need to explain. This proposal might even be extensionally adequate, capturing all the relevant empirical cases. But it is one thing to propose a posteriori identities as brute facts, and another thing to bring forth the exact knitting between the identified phenomena, so that it is clear how one stands as an explanation of the other.

In this case, this "exact knitting" would be fully revealed in an explanation that took into account that, when I claim that a body I feel is *mine*, I mean *exactly* that it belongs to the experiencer of the relevant sensations, where this experiencer is me. Within an experientialist framework, this means characterising bodily experiences themselves in a way such that they grasp this reflexivity. Indeed, if we can't get a full explanation of this type, then we should resign ourselves to a posteriori identities of the sort discussed. The question, however, is whether we can. As far as I see, offering an explanation of the SBO that is fully explanatory in this specific sense is possible – or so I will argue in the second half of this dissertation.

To conclude this assessment of Spatial Deflationism, it must be admitted that at least one mainly spatial deflationist account available in the literature contains hints in a direction in principle suited to overcome this difficulty. De Vignemont (2007) points out that Martin "reduces the sense of ownership to the sense of the boundaries of one's own body" but he "does not go into detail about the delineation of the boundaries of one's own body". She then proceeds to investigate "the nature of the *spatial representation* of the body that *underlies* the sense of ownership" (436, my emphasis), submitting an account that intends to supplement Martin's in the pursuit of a common aim. It therefore seems fair to read her view as an instance of BT-Second Version.

In de Vignemont (2007), however, the type of bodily representation proposed as relevant for the discussion on the SBO is the body schema. The body schema is a sensorimotor map of the body based on information that can be constantly updated on the basis of afferent and efferent processes, including the posture and relative position of body parts, the size and strength of the

limbs, or the degree of freedom of the joints.[53] From a functional point of view, the body schema enables and constrains movement and the maintenance of posture, being the kind of representation involved in the control of action. The relevance of the body schema in the discussion of the SBO is inferred from empirical evidence showing correlations between variations in ownership rating and functions typically associated with this body map. Bodily sensations, among other sensory inputs, are essential for the emergence of the schema, although they subsequently become weaker or disappear in the constitution of a bodily representation that is "most of the time unconscious" (444).

I have just discussed the difficulties involved in claiming that token somatosensory experiences have a phenomenology of ownership *because* they borrow their content, or are integrated within, either a conscious or an unconscious bodily representation. In normal circumstances, the very formation of the body schema might well owe too much to (localised) bodily sensations to be able to function as an ultimate explanation of their phenomenology. In fact, a similar criticism, picking up directly on de Vignemont (2007), is raised by Peacocke (2015), who points out that if it is part of the representational content of the body schema that it marks body parts as one's own, then it assumes the notion of ownership instead of offering a reductive explanation thereof.

In fairness, though, we can read de Vignemont (2007) as suggesting that the first-personal component of the body schema is *gained* by the fact that it is the map of the body with which we act. In normal circumstances, this might not be completely independent from the fact that one perceives this body via the bodily sensations involved in one's engagement in action: we experience as our own the one and only body with which we can perform direct actions, which we somatosensorily feel accordingly – and the body schema just happens to be the representation tracking this body.[54]

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[53] For reviews of the numerous terminological and conceptual confusions involved in this notion, in particular its conflation with the notion of body image, see Tiemersma (1989) and Gallagher (2005, Chapter 1).

[54] In principle, this doesn't have to entail that bodily sensations are necessary for *any* subject to have a sense of agency, and to possess a bodily representation that plays the functional role typically associated with the body schema. Patients with deafferentation, for example, compensate their somatosensory deficits with visual tracking of the body (Cole and Paillard, 1995). This suggests that the various sensory modalities typically involved in building the relevant bodily representation can compensate each other in cases of deficit (notice also that deafferentation is sometimes interpreted as a pathology in which motor deficits are compensated by mechanisms closer to the body image than the body schema; e.g. Gallagher & Cole, 1995; Wong, 2009).

This paves the way for a suggestive account of the SBO in which agency plays a crucial role: on this view, having a SBO would be tightly linked to the capacity to perform bodily actions. In this context, bodily sensations might well make the bodily boundaries salient, but the bounded body will be experienced as one's own on the grounds of it being the body one has an experience as of acting directly with – a body indeed represented in the body schema.

As I see it, this is tantamount to acknowledging the limitations of spatial representation as grounds for the SBO, and in particular of the notion of boundedness as has been presented up to now. The agentive view that follows naturally is one in which bodily sensations, provided with a spatial content, convey the limits of the body with which we can act directly; and this, in turn, gives rise to a specific bodily map attached to action, as well as to a sense of bodily ownership. Interesting as it sounds, this view departs from – in fact, it seems to deny – the claim that a sense of boundedness be sufficient as grounds for the SBO. This view thus goes beyond what would be strictly speaking Deflationism about the SBO.[55, 56]

2.2.3. Summing up

Bodily awareness in somatosensation involves, minimally, the sensation as of a property instantiated in a location. The common tenet of the several forms of Spatial Deflationism discussed is that the location of felt properties in somatosensation involves the phenomenal salience of the boundaries of the body. This phenomenological datum has not been disputed in the foregoing section. I have addressed, however, the Boundedness Thesis:

> [*Boundedness Thesis*]: the SBO consists at least partly of the fact that, when having bodily sensations, the body is felt as having certain boundaries.

I have argued that Spatial Deflationism fails at meeting at least the Judgment Formation Goal and the Intuitive Goal – and, in some cases, also clearly the

[55] I am thankful to one of the referees of my paper "The Bounded Body. On the Sense of Bodily Ownership and the Experience of Space" for helping me shape these remarks on agency.

[56] De Vignemont (2017, 2018) actually endorses this insufficiency claim, and offers a much more sophisticated view on the SBO that ultimately relies on affective phenomenology. For a brief comment on this view, see section 2.5 in this chapter.

Empirical Goal. In Martin's version of this thesis, BT-First Version, nothing else but the sense of boundedness is called upon as grounds for the SBO. I have argued that the sense of boundedness alone doesn't allow to explain why we self-attribute seemingly compellingly the body we perceive somatosensorily. This is because, on the one hand, something akin to the sense of boundedness is present also in exteroceptive perception; and on the other hand because, given the sense of boundedness, arguably more than one delimited object belongs to the content of somatosensation, and accounting for the fact that only one of them is experienced as one's own needs to go beyond the fact that we are aware of its limits.

Bermúdez and de Vignemont's (2007) versions of the Boundedness Thesis, BT-Second Version, add an appeal to bodily representations as that in virtue of which token somatosensory experiences gain their spatial phenomenology, including the awareness of boundaries, and hence their phenomenology of ownership. I have argued that this strategy leaves us with an explanatory gap between plain, non-reflexive representation of space, and the reflexive, first-personal phenomenology putatively grounded on it. I have claimed that the farthest these sort of views can go is to establish a posteriori identities between the SBO and an element in the representational structure of somatosensation. Bridging the gap is likely to involve reexamining the phenomenology of somatosensation to add further aspects to it, such as a sense of agency.

Is it possible, however, to cash out the content and phenomenology of bodily experiences so that it involves the due reflexivity, without yet appealing to these further components? Is it possible to describe the SBO by using resources that do not go beyond those Deflationism wants to commit to? Of course, we cannot rule out this possibility yet. The second main strand of experiential Deflationism confers the explanatory burden on the SBO to the kind of sensory qualities we are aware of in somatosensation – that is, to the nature of the properties involved in bodily experiences. In the following section I will assess this type of Deflationism.

2.3. Property Deflationism

The idea that the SBO needs to be spelled out in terms of the nature of the *properties* one feels instantiated in the body when undergoing bodily sensations has been defended by Jérôme Dokic (2003). On his view, the properties

involved in somatosensation are *experience-dependent*, and this is the crucial feature for an account of the SBO. To put it succinctly, Dokic's central claim is the following:

> [*Property Thesis*]: the SBO consists of the fact that the properties involved in bodily sensations are experience-dependent.

In this section I will discuss Dokic's account, arguing that it also falls short of meeting the Judgment Formation and Intuitive goals, as did Spatial Deflationism. In what follows, I start by putting forward the details of the view, including the crucial notion of experience-dependency of properties.

2.3.1. Translucence and Reflexivity

On his way to articulating his proposal, Dokic (2003) puts forward an assumption about bodily experiences: on his view, bodily experiences are *translucent*.[57] This is how Dokic defines the notion:

> [A]ny intentional object of bodily experience can be the intentional object of external perception, in particular by others. Whatever pain is, what I am perceiving in my hand when I feel pain is in principle open to observation by anybody else (or by me in the mirror). (324)

Let me start by clarifying what Dokic is pointing to by endorsing the thesis of translucence – henceforth, *Translucence*.

Bodies, just as other objects, have properties. And as happens with other objects too, experiencing subjects can pick out these properties in various ways. For an illustration, let us consider the following example: the peel of watermelons is typically smooth, and one can both *visually* and *tactually* perceive the *smoothness* of the peel of a watermelon. What it is like for a subject to see the smoothness of the peel of the watermelon is remarkably different from what it is like for her to tactually feel the smoothness of the peel of the watermelon. Nevertheless, there is a plain sense in which the "smothnesses" involved in these two experiences are the same: they capture a property the peel of the watermelon has. Let us call this property *Smoothness*. In the example,

[57] Dokic in fact uses the term "transparent" instead of "translucent". I have opted for a change in the terminology because in chapters 3 and 4 of this dissertation I will be using the notion of transparency in another sense, more standard in the philosophy of mind.

the experiencing subject picks out Smoothness by exercising two different cognitive faculties, namely visual perception and tactile perception. The fact that Smoothness yields several distinct phenomenal experiences does not in principle tell against the idea that, by having these experiences, the subject is presented with what we can take to be a single property of the peel of the watermelon – in fact, with what the subject herself most probably takes to be a single property of the peel of the watermelon.

Surely our bodies also have properties or find themselves in conditions we pick out. Imagine, for example, a child that falls down and scrapes her knee against the ground. Imagine also that, after the fall, she looks at her knee to discover a big graze on its skin. The child thereby visually perceives the knee's skin damage caused by the sandy pavement. Another thing the child notices after the fall is an intense, burning sensation, which incidentally she will report to feel exactly in the knee's graze when asked where it hurts. Arguably, what it is like for the child to see the wound will be remarkably different from what it is like for her to feel it hurting. Nevertheless, there is a sense in which both experiences capture a property the knee has. Let us call this property *Damage*. The scenario described is one in which the child picks out Damage via two different cognitive faculties, namely visual perception and somatosensation, and correspondingly has two presumably distinct phenomenal experiences. In any case, the latter does not tell against the fact that through both of these experiences the child is acquainted with the Damage of her knee.

By putting forward Translucence, Dokic endorses a generalisation of which the case of Damage just described is just an instance. According to Translucence, on the one hand, Damage is exteroceptively graspable not only by the very subject whose body is damaged but also by others. Indeed, people other than the child will be able to *see* the child's knee's Damage when she shows them her graze, just as she herself is able to do so. In contrast, in normal conditions, Damage will only be presented somatosensorily, in the form of an experience of *pain*, to the subject whose body is actually wounded, in this case the child.

This point allegedly applies to all bodily sensations. For instance, a subject's legs' being Crossed, as well as their Moving, can be somatosensorily picked out by her, or visually grasped by her and others; the Coldness of a subject's body can be somatosensorily perceived by her, who will feel cold, and externally observed by her and others, for instance by hearing her teeth chatter. Translucence claims that there is a common structure to all these cases: given a

Property of a body, if it is possible for subjects to pick it out somatosensorily, then it is also possible for subjects to pick it out exteroceptively.[58] Incidentally, the only subject who is capable of the former in normal conditions is the one we normally count as the owner of the body bearing the Property. In contrast, in normal conditions, not only the owner of the body, but other subjects as well, are capable of the latter.[59]

At this point it might be noticed that it is doubtful that Translucence actually generalises without exception to all bodily sensations. A counterexample to this generalisation might be some cases of phantom limb pain, in which subjects have a sensation as of a Property localised in a body part, whereas no trace of the physical Damage in the body can be exteroceptively observed.

In any case, that Translucence cannot be generalised to all sensations is not problematic for Dokic's purposes, nor for my purposes in this section. Here is why. Dokic's point in putting forward Translucence in the context of a project on the SBO is to stress that we are in need of an explanation of the difference between perceiving properties of bodies exteroceptively and perceiving them somatosensorily. The acknowledgment of this difference, and of the need for an explanation thereof, is precisely what has led me to formulating the Judgment Formation and the Intuitive goals in Chapter 1 of this dissertation. Admittedly, in order to convey the need for this explanation, it is dialectically powerful to mention cases in which the Property perceived exteroceptively and somatosensorily is, on some rather uncontroversial reading, the same. I think it is uncontroversial that there are *at least* some cases of somatosensation for which Translucence holds. The examples mentioned in the previous paragraphs are cases in point.

On Dokic's view, what distinguishes the somatosensory perception of properties from the exteroceptive perception of (the same) properties is the *reflexivity* embedded only in the former. Reflexivity is a technical notion of his, to be defined immediately. Dokic is committed to *all* bodily experiences being reflexive. As far as I see, it is unproblematic to read him as sticking to the

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[58] My reformulation of Translucence in terms of *picking out* properties – or, in the previous paragraphs, in terms of being *acquainted* with properties, or of properties being *presented* to subjects – intendedly remains neutral as to whether the status of the properties in the experiences is that of an *intentional* object. Dokic's original point explicitly assumes it is. I do not need to endorse this assumption for my points in this section to go through.

[59] Note that this formulation is neutral with respect to whether the answer to the metaphysical question "which body is subject S's body?" should take into account which body S is capable of perceiving somatosensorily in normal conditions.

generality of this claim even if, against his own proposal, we assume that Translucence might not hold for all cases. This is because bodily experiences *in general* typically involve a SBO, regardless of whether Translucence holds for them or not, and the SBO is exactly what the notion of reflexivity is aimed at accounting for. In what follows I shall introduce Dokic's notion of reflexivity. Afterwards I shall argue that it is not sufficiently distinctive of somatosensation. Hence, I shall argue that it falls short of providing an account of the SBO that meets our goals.

On Dokic's view, bodily experience, in contrast to external perception, is *reflexive* "in the sense that it is about instantiated properties which entail the experience itself" (327). Let us call this thesis *Reflexivity*. We can articulate Reflexivity by exploiting a bit more the terms used in putting forward Translucence.

Translucence has it that, given a Property of a body, if it is possible for subjects to pick it out somatosensorily, then it is also possible for subjects to pick it out exteroceptively, at least in some cases. Uncontroversially, subjects perceive bodily properties somatosensorily. Stipulatively, the following is a way of putting forward the same point: given a Property of a body, if it is possible for subjects to have an experience involving Property^{S}, namely a somatosensory experience, then at least in some cases it is also possible for them to have an experience involving Property^{E}, namely an exteroceptive experience, where the superscripts "^{S}" and "^{E}" stand for "somatosensation" and "exteroception" respectively. Uncontroversially, subjects have somatosensory experiences involving Properties^{S}.

This notation has only an instrumental purpose: Properties^{S} are *properties as they are involved in somatosensation*, and Properties^{E} are *properties as they are involved in exteroception*, where this is yet intended to be neutral with respect to the *nature* of the relevant properties as part of the content of the experiences. As an illustration, note that a new way of describing the example of the child above is now available: when she and other people look at the wounded knee, they have a visual experience which involves Damage^{E}. In turn, when the child has that unpleasant sensation in the knee, she has a somatosensory experience which involves Damage^{S}. The experience involving Damage^{E} and the experience involving Damage^{S} presumably are phenomenologically distinct – which in principle doesn't tell against the fact that, by these experiences, subjects are acquainted with Damage in the child's knee.

Reflexivity says that Properties^{S} are such that they *entail the experience itself*. On Dokic's view, this means that Properties^{S} are *constitutively dependent* on the *occurrence* of the token experience they are a content of. In other words, each token Property^{S} is such that it could not be instantiated if the token experience it is a content of didn't occur. In this specific sense, Properties^{S} are *experience-dependent*. In turn, for an experience to be *reflexive* means for it to have as part of its content an experience-dependent property. What Reflexivity says, then, is that bodily experiences are reflexive, in the specific sense of including as part of their content an experience-dependent property.[60]

We are now in a position to offer the schematic characterisation of bodily experiences that flows from Dokic's proposal:

> (*) Experience (P is instantiated in L), where P is constitutively dependent on this particular experience.

The brackets enclose the content of the experience, namely that a certain property is instantiated at a certain (bodily) location. In turn, the clause after the brackets nuances this: P is to be understood as *constitutively dependent* on the occurrence of the token experience it is a content of. An experience thus defined is reflexive, since it has as part of its content a property of this type. Finally, and crucially, Dokic's claim is that all and only somatosensory experiences are reflexive in this sense, insofar as they present their subject with qualified body parts. Consider again the child's case as an instance of this generalisation: the child has a visual experience which involves Damage^{E}, as well as a somatosensory experience which involves Damage^{S}. By Reflexivity, the child's somatosensory experience of Damage^{S} – namely, to be clear, her experience of pain – is reflexive because Damage^{S} is experience-dependent, that is, it would not be instantiated if the child's token experience of pain were not occurring.

Crucially again, (*) is a *complete* description of token bodily experiences on Dokic's view. This means that, on this view, (*) contains the elements sufficient to account for the SBO. In particular, on this view the fact that

[60] It is important for dialectical purposes to note that, on Dokic's Reflexivity, the properties involved in somatosensory experiences concern *the experiences themselves* in a peculiar way (they "entail" them, in Dokic's words). The notion of reflexivity I have put forward at the beginning of this chapter as characteristic of judgments of somatosensation has it that the canonical expression of these judgments contains a reference to *the subject of the experience qua subject of the experience*.

bodily experiences are reflexive is what allegedly accounts for the SBO. In Dokic's own words, "the sense of ownership peculiar to bodily experience *results from facts* about the perceived properties … – more precisely, from a constitutive relation holding between the instantiation of these properties and the experience itself" (326. My emphasis). In this sense, Dokic is a deflationist about the SBO. In particular, one claiming that bodily experiences involve a SBO in virtue of the qualitatively rich properties one feels instantiated in the body when undergoing bodily sensations – more specifically, in virtue of a metaphysical feature of these properties. Dokic thus defends the Property Thesis:

> [*Property Thesis*]: the SBO consists of the fact that the properties involved in bodily sensations are experience-dependent.

Before moving on to assessing Dokic's view in the next section, it is important to stress that, on his view, bodily experiences are reflexive only *implicitly*: it is *not* part of the content of bodily experiences that the properties involved in them are experience-dependent. This was clear in the schematic description of bodily experiences yielded by the view,

> (*) Experience (P is instantiated in L), where P is constitutively dependent on this particular experience,

in which the experience-dependency of P is stated outside the brackets. By having an experience of pain in the knee, for instance, the child is presented with Damage^{S} as localised in the knee, but the fact that Damage^{S} is actually experience-dependent does not figure in the content of her experience. Hence, what Dokic proposes as accounting for the SBO is a metaphysical fact about the properties involved in somatosensation that is not itself reflected in the content of bodily experiences.

Speaking generally, Dokic's Property Deflationism contains a twofold suggestion. On the one hand, the properties we somatosensorily experience the body as having are, by nature, linked to the occurrence of experiences in an intimate way; on the other hand, this somehow has to do with the fact that we experience the body in which we take these properties to be localised as very intimately ours. I find this suggestion very interesting. However, I do not think

that Dokic goes far enough in exploiting it. In the next section I articulate my reasons to doubt that his proposal fulfils its intended aim.

2.3.2. The Significance of Experience-Dependency

In order to develop my objection to Property Deflationism as clearly as possible, I will stick to the toy case of the child with the wounded knee. I have stipulated that, by having an experience as of pain in the knee, the child is presented with Damage^{S}. Besides, when looking at her knee, she has an experience as of Damage^{E} in her knee. By Reflexivity, the child's bodily experience of Damage^{S}, namely her experience of pain, is reflexive, given the experience-dependency of Damage^{S}.

The criticism I will put forward in the forthcoming paragraphs takes issue with what the precise nature of Damage^{S}, and in general Properties^{S}, might be. It runs as follows. As far as I see, there are two reasonable ways in which Damage^{S}, and in general Properties^{S}, can be further substantiated so that they are, metaphysically speaking, experience-dependent. In any of these two specifications, I will argue, the resulting schematic description of bodily experiences, offered as allegedly sufficient to account for the SBO, might actually also apply to experiences of external perception. However, the latter do not (seemingly) necessarily involve a link between the occurrence of the experience itself, and the awareness of the perceived body as one's own. This means that in none of these two readings does Property Deflationism meet the Intuitive Goal: the experience-dependency of the properties involved in the experience is not distinctive enough of somatosensation vis à vis external perception. By the same token, the view neither meets the Judgment Formation Goal: the experiences of external perception that the resulting description also applies to do not yield first-person judgments. Therefore, the description in question is not sufficient to explain the fact that we self-attribute the felt body in judgments of somatosensation in which we do so.

The first way in which Damage^{S}, and in general Properties^{S}, can be further substantiated is by taking them to be qualitative properties. It is rather uncontroversial that there is something it is like to feel pain, namely that there is a quale attached to this experience. Let Damage^{S} be this quale. On this reading, Damage^{S} is indeed a type of property such that, in order for it to possibly be instantiated, an experience that has it as its content needs to occur. On this first reading, then, "P" in the schematic description

(*) Experience (P is instantiated in L), where P is constitutively dependent on this particular experience

is to be understood as a quale. Here is a more precise schematic description of the relevant experiences, adapted to this first reading of Property Deflationism. The superscript "^{Q}" in it stands for "quale". In this new description, the metaphysical proviso after the brackets admittedly becomes rather redundant:

(*^{Q}) Experience (P^{Q} is instantiated in L), where P^{Q} is constitutively dependent on this particular experience.

The possibility of specifying properties such as Damage^{S} as qualia seems reasonable: there is a sense in which, by being in pain, the child *is aware* of the quality of her painfulness. Surely, the child will most likely take her qualitatively rich experience of pain in a knee to indicate the presence of objective Damage in her knee, and not so much the presence of a quale in her knee. In principle, this observation doesn't make the substantiation of Damage^{S} as a quale unreasonable. Rather, it suggests that, if one endorses such substantiation, then one should supplement one's theory, so as to explain why an experience whose content is specified primarily in terms of qualitative properties is ultimately reported as revealing the state and condition of a physical object.

We do not need to get into these details to assess this first specification of Damage^{S}, though. The problem with Dokic's view on this first reading is that nothing in it tells against the possibility of taking P^{Q} in (*^{Q}) to be Damage^{E}, assuming that there are qualia associated to visual perception, and in particular to visually perceiving a red graze on a knee. This assumption seems plausible enough – specially in a context in which, we have assumed, there are qualia associated to a type of conscious sensory states, namely somatosensory experiences. In other words, the problem with Property Deflationism on this first reading is that, in principle, nothing in it tells against the possibility of taking the experience described in (*^{Q}) to be a visual experience.[61]

Let me unpack this objection in a bit more detail. We know that, after the fall, the child, and probably the adults around her, have looked at her knee to discover a big red graze on its skin. In other words, they have had an

[61] I will put forward the objection focusing on the case of visual perception, but it could be equally run by focusing on any other possible mode of exteroceptive perception of bodily properties.

experience involving Damage^{E}, namely a visual experience. There is something it is like for them to have these experiences, that is, their respective visual experiences have a certain qualitative character. Let Damage^{E} be the quale associated with having a visual experience as of a red graze on the knee. The question is now the following: what prevents (*^{Q}) from being a description of an experience bearing this quale? Consider it again:

> (*^{Q}) Experience (P^{Q} is instantiated in L), where P^{Q} is constitutively dependent on this particular experience.

As a qualitative property, Damage^{E} certainly meets the condition of not being instantiated unless an experience occurs such that the experience involves it – namely the condition of being experience-dependent. Hence, Damage^{E} could occupy the place of variable P^{Q}. What this means, in sum, is that visual experiences could fall under description (*^{Q}).

Indeed, for this to be the case we would have to be assuming that the contents of visual experiences need to be spelled out primarily in terms of qualia. A theory along these lines is not completely uncontroversial: for instance, it will need to be supplemented with an explanation of why visual experiences seem to present us with objective properties of physical bodies. I do not need to engage in this discussion to make my point, however. In order for my objection to get off the ground, the only possibility of extending the analysis of bodily experiences to exteroceptive experiences suffices. Various authors in the literature, endorsing several distinct views on the content of visual perception, take qualitative properties to figure in it in one way or other.[62] Dokic's analysis of bodily experiences, and ultimately of the SBO, stands in a notably bad position, if its plausibility for the somatosensory case depends on the denial of the claim that qualia belong to the content of exteroceptive experiences in any of the ways in which they might.

As an aside, note also that taking both bodily experiences and exteroceptive experiences to fall under description (*^{Q}) would be compatible with Transparency. The relations between Damage and the corresponding qualitative properties Damage^{S} and Damage^{E} would simply have to be sufficiently specified, for example in the direction of taking the qualia to be

[62] E.g. classical sense-data theories, but also projectivism (see Boghossian and Velleman, 1989) or sensationalism (see Peacocke, 2008).

caused by, and to indicate, one and the same property instantiated by the relevant object.

To finish unpacking the objection, let me make explicit the reason why the possibility of extending ($*^{Q}$) from somatosensory experiences to exteroceptive experiences is problematic. According to Property Deflationism, the SBO involved in somatosensory experiences consists in the fact that they are *implicitly reflexive*. On the reading of the proposal now assessed, somatosensory experiences would be implicitly reflexive in virtue of involving qualia as part of their content.

Now, given the nature of Damage^{E} qua quale, visual experiences involving Damage^{E} in the way indicated by ($*^{Q}$) would also be implicitly reflexive. However, they do not involve a SBO in the way bodily experiences do: to the extent that we can conceive of visually perceiving a knee as damaged without thereby self-attributing it, it is clear that there doesn't *seem* to be a necessary link between having an experience involving Damage^{E} and experiencing the damaged bodily part as one's own. And this is perfectly conceivable. Actually it is often the case: in normal conditions, when people other than the child would see the child's torn skin, they would typically unproblematically attribute it to her, and not to themselves. We can even think of the child herself mistaking her damaged knee with, say, that of some likewise adventurous friend of hers. Hence, the experience-dependency of the properties involved in somatosensation, understood as the experience-dependency of qualia, and hence the putative implicit reflexivity of somatosensory experiences, is not sufficient to account for the SBO, involved in them but not in exteroception.

Put in terms of our goals, under this reading Property Deflationism would not satisfy the Intuitive Goal.[63] It would not offer an answer to the Constitutive Question that, picking out an element of bodily experiences distinctive enough of them, accounted for our contrastive intuition: if one experiences a body somatosensorily, one will be aware of it as one's own, but this is not necessarily so in cases in which one experiences a body exteroceptively. By the same token, the view doesn't meet the Judgment Formation Goal either. The point just made is that exteroceptive experiences might be implicitly reflexive, in the sense now relevant, without yielding

[63] Incidentally, Dokic explicitly articulates the intuition that motivates the Intuitive Goal. As he puts it, "[w]hatever property we can be aware of 'from the inside' is instantiated in our own apparent body. Bodily experience seems to be necessarily short-sighted, so to speak, since it cannot extend beyond the boundaries of one's body. The very idea of *feeling* a pain in a limb which does not seem to be ours is difficult to frame, perhaps unintelligible" (325).

judgments in which one qualifies the perceived body with a first-person pronoun. Therefore, if implicit reflexivity in the sense now relevant were a feature of bodily experiences, it would not be sufficient to explain the fact that we self-attribute the felt body in judgments of somatosensation in which we do so.

As advanced, there is yet another way in which Damage^{S}, and in general Properties^{S}, could be specified such that Reflexivity would be respected. Let us still hold the rather uncontroversial assumption that there is something it is like to undergo bodily experiences, and in particular pain. Now, let Damage^{S} be the relational property something has just in case it is currently producing the quale of pain in a subject appropriately related to it.[64] Here is the schematic description of bodily experiences yielded by this substantiation of Properties^{S}. The superscript "^{P}" indicates that we are talking about the property of currently *producing* a quale. In this new description, the metaphysical proviso after the brackets is again rather redundant:

> (*^{P}) Experience (P^{P} is instantiated in L), where P^{P} is constitutively dependent on this particular experience.

On this second reading of Property Deflationism, somatosensory experiences have as part of their content a property that can directly seem to us to be instantiated by the body itself. Yet, in turn, this property is experience-dependent: it is not possible for a body to have the property of *currently* causing a given token quale unless an experience (of a subject appropriately related to the body) occurs that instantiates the relevant quale. On this second reading of Property Deflationism, experiences are implicitly reflexive in virtue of involving as part of their content the property something has just in case it is currently producing qualia in a subject appropriately related to it.

As far as I see, this specification of Properties^{S} is liable to the same objection I put forward to the first proposal. In principle, nothing in this understanding of bodily experiences tells against the possibility of taking P^{P} in (*^{P}) to be Damage^{E}. Doing so would mean that we specify Damage^{E} as the property of currently producing the quale associated to exteroceptively perceiving a red knee in a subject appropriately related to the bearer of the property. In this case, however, the experience described would be a visual experience. Again, this goes on the rather uncontroversial assumption that

[64] These properties are modelled on Shoemaker's (1994, 2000) phenomenal properties.

there is something it is like to perceive, say, a red graze on a knee, and hence that there are qualitative properties associated to having this experience. If this is so, then we can cash out the property of currently producing the relevant visual quale in a subject, and endorse the idea that objects appropriately related to subjects with qualitatively rich experiences are perceived as instantiating this property.

It is not at all uncontroversial that our visual experiences have properties of this type as part of their content. However, it is not uncontroversial either that bodily experiences do. Again, my point here is that if one puts forward an analysis of somatosensation in terms of this sort of experience-dependent properties, then the door is open to the involvement of this type of properties in other sorts of sensory experiences as well.[65] To repeat, this is problematic because visual experiences involving, say, Damage^{E}, which also on this reading are implicitly reflexive, do not involve a SBO for the body experienced as instantiating the relevant property. In contrast, bodily experiences involving Damage^{S} do. Hence, the metaphysical feature we are alluding to as grounds for the SBO, namely the experience-dependency of the properties involved and the subsequent implicit reflexivity of the experiences, is not sufficient to explain that we self-attribute the felt body in judgments of somatosensation, nor a fortiori the fact that we do so typically. In other words, it is not sufficient to meet the Judgment Formation and Intuitive goals.

In fairness, Dokic himself seems to be sensitive to the general lines of the problem that I have just detailed. He writes that, on his view,

> [a]ll that is explicitly represented in bodily experience is that bodily properties are exemplified at particular locations in objective space. The difference between observing and feeling pain is traced to a fact which is not represented in the subject's experience. So how can it be phenomenologically significant? (329)

The worry becomes more pressing if, as I have suggested, the fact that is supposed to explain this difference is possibly common to bodily experiences and exteroceptive experiences. Responding to his own worry, Dokic suggests that "[t]he general idea that the subject can *manifest sensitivity* to that fact, not by representing it, but implicitly, by differentiating on a functional level internal

[65] In fact, Shoemaker (1994) analyses both visual and somatosensory experiences in the same terms.

perception from external perception has not been shown to be incoherent" (330. My emphasis). And he goes on to propose that

> [o]ne way (perhaps not the only one) of implementing the general idea would be to claim that the sense of ownership is at least partly determined by the subject's finding the transition from a particular case of bodily experience to a judgment like 'My arm is hurting' *primitively compelling* in Peacocke (1992)'s sense (ibid.).

Admittedly, this suggestion is only embryonic in Dokic's paper. Nevertheless, I think there are reasons to be sceptic about its prospects as a solution to the problem it intends to resolve. One might agree with Peacocke (1992) that possessing certain concepts consists of finding the (rational) transitions from certain experiences to judgments in which the relevant concepts are articulated primitively compelling. In particular, in the context of the present discussion, one might want to endorse the idea that possessing the concept of a body being one's own (partly) consists of finding the transitions from bodily experiences to judgments in which this concept is articulated primitively compelling. It would presumably be part of the view Dokic seems to be pointing at that, by involving the first-person in the relevant sense, the judgments manifest the subject's sensitivity to features of the experiences over and above their explicit contents. On these grounds, the view might be that the SBO consists of possessing the concept of a body being one's own, where the articulation of the concept in judgment is linked, in a primitively compelling way, to having certain experiences.

So, indeed, the notion of primitive compellingness might be found useful to explain what it is to possess *the concept* of a body being one's own. However, the appeal to primitive compellingness doesn't overrule the question about what it is, of bodily experiences, that makes them *the* class of experiences from which de se somatosensory judgments rationally follow in this way. As a matter of fact, that the transitions from bodily experiences to judgments with a certain form are tied specially tightly has never been under discussion. Quite the opposite, it is one of the starting points of this debate, which aims at figuring out why this is so. The problem is that, according to Property Deflationism, the feature of bodily experiences over and above their content that subjects will "manifest sensitivity" to by making the relevant judgments – namely the fact that putatively explains the tight link – is their implicit reflexivity. And this, I have argued, is a feature they might share with states of visual perception.

This being so, it remains unclear why only bodily experiences, but not visual experiences, will end up yielding judgments of ownership primitively compellingly.

Again, the deflationist has his own recalcitrant response ready: it is just a brute fact that the SBO consists in the implicit reflexivity of bodily experiences. For a start, this strategy is specially doubtful here, given the possible analogies drawn in this subsection: it is difficult to see the postulation of this brute fact as a non ad hoc explanation of the phenomenon at stake. Besides, as mentioned before, I find this line of argument generally unsatisfactory: it is a resource just in case it is not possible to put forward detailed explanatory relations between the elements identified.

2.3.3. Summing up

The dimension of bodily awareness of our somatosensory experiences involves the sensation as of a property instantiated in a location. According to Property Deflationism, it is the nature of the properties one feels instantiated in the body when having the sensation which explains the SBO. More specifically, Property Deflationism is defined by its defence of the Property Thesis:

> [*Property Thesis*]: the SBO consists of the fact that the properties involved in bodily sensations are experience-dependent.

In this section I have argued against the sufficiency of the experience-dependency of properties, and hence of the implicit reflexivity of the experiences bearing them, to account for the SBO. I have thereby concluded my critical analysis of Deflationism about the SBO.

The objections raised against Spatial Deflationism and Property Deflationism are of a similar type. In general, if one claims that our experience of our bodies as our own consists in a feature common to exteroception and somatosensation, then it is not clear why only in the latter the body stands out, as an object specifically designated in contrast to the rest, in the peculiar way it does. I have pointed out that, in this context, the farthest these theories go is to posit a posteriori identities between the SBO and the feature selected to specify it. They thereby leave an explanatory gap between the representation of space, or the metaphysical characterisation of the properties, and the putatively

first-personal phenomenology of these experiences. To recall, Experientialism is committed to there being such a phenomenology.

Importantly, this gap isn't necessarily bridged by positing *any* device as explanatory of other aspects of the phenomenology of bodily experiences – such as, for instance, bodily representations that account for the kind of spatial content of somatosensation. The commitment of Experientialist Accounts is that there is some component of bodily experiences themselves that stands for the first-person that eventually figures in judgments of somatosensation. Hence this component, apart from being sufficiently distinctive of somatosensation, should grasp the specific kind of reflexivity displayed by the canonical expressions of these judgments.

2.4. Conclusion

At the outset of this chapter I pointed out that the canonical expression of judgments of somatosensation is reflexive in a specific sense: the token of the first-person possessive pronoun in the *content* position thereof *contains a reference to the subject of the experience qua subject of the experience*. Experientialism about the SBO assumes that there is a component of bodily experiences themselves that stands for the first-person that eventually figures in the content position of judgments of somatosensation. I have pointed out that for an experience to fully meet this condition is for it to have embedded in its content and phenomenology the kind of reflexivity mentioned. A proposal along these lines will surely meet the Judgment Formation Goal, allowing for no gaps in an explanation of the fact that we self-attribute the felt body in judgments of somatosensation in which we do so.

I framed this chapter, and this dissertation more generally, as an exploration of the feasibility of the most minimalist form possible of Experientialism about the SBO. The most minimalist form of Experientialism would be one that grounded the SBO in the spatial dimension or the sensory qualities involved in somatosensory experiences. Pursuing this project, I devoted the present chapter to examining the Deflationist Accounts in the literature that focus on these aspects of somatosensation as grounds for the SBO, namely Spatial Deflationism and Property Deflationism. I concluded that none of them yields a satisfactory account of the SBO.

On my view, however, the tenets put forward by deflationists do yield a complete account of the SBO *if considered jointly and exploited conveniently*. In the

next chapter I present such account. The view that I will propose takes in, on the one hand, the idea that in somatosensation a spatially extended and delimited body is experienced. It thus borrows the notion of a *sense of boundedness*, central to Spatial Deflationism. On the other hand, it endorses the maybe more controversial notion of *experience-dependency* of the properties involved in somatosensation – and therefore the idea that bodily experiences are reflexive in the sense of involving, as part of their content, properties the instantiation of which depends on the occurrence of the experiences themselves.

Being a hybrid of these two forms of Deflationism, my proposal amends and goes beyond both of them. In particular, it points out the following: if properly cashed out, the notion of a *sensory field* associated to the sense of boundedness *entails*, not only that the properties involved in somatosensation are experience-dependent, but also that this very fact is part of the content of bodily experiences, and thereby of their phenomenology. Hence, on my view, bodily experiences are not implicitly reflexive, but *explicitly* so. This move is key, I will argue: thereby the SEO becomes relevant for the analysis of bodily experiences. This is what ultimately provides bodily experiences with the specific type of reflexivity manifested in canonical expressions thereof.

Before starting to deploy my view in the second half of this dissertation, I will close this chapter by adding an excursus in which I briefly refer to two further experientialist views on the SBO that have been published fairly recently. Indeed, the shortages of Deflationism justify that philosophers who pursue the experientialist project on the SBO ground the SBO in aspects of somatosensory experiences beyond their qualitative and spatial components, without yet embracing Pure Inflationism. In this work I will not engage critically with these further experientialist views. What I do in the forthcoming excursus is clarify where in the logical space of possibilities my proposal stands with respect to these further views, and what about this relative position in the logical space of possibilities makes my proposal worth exploring.

2.5. Excursus: Agency and Affectivity

Peacocke (2017) frames his interest in terms relatively similar to the considerations about reflexivity I opened this chapter with. As he puts it, "the first-person notion is the notion individuated by the fundamental reference rule that on any occasion of its occurrence in a mental state or mental event …

refers to the subject of that state or mental event" (295). Within the project of settling on a basic, nonconceptual form of self-representation, Peacocke notes that mental states with contents specifiable as "*this* leg is bent" are not genuinely first-personal, in that they do not bring the subject into their truth-conditions. It is relevant that a lot of his examples concern bodily events. His worry thus involves what it is for a subject to nonconceptually represent a body in a way that captures what is expressed in claims of the form "*my* leg is bent".

Peacocke's proposal can be seen, at least partly, as an elaboration of the agentive account pointed to above. The scope of his proposal is in fact broader, since he addresses the problem of the most fundamental forms possible of first-personal representations, conscious or unconscious. His view, however, encompasses the discussion on the SBO, that is, how to characterise bodily *experiences* so that they are experiences as of *one's own* body. He proposes two conditions, each of which necessary and together jointly sufficient, for a nonconceptual component c of the content of a given mental state to be the genuine first person i:[66]

> (1) there is a range of action notions A for which the creature must be capable of being in mental states or of enjoying mental events with the content
> c is A-ing
> where the state or event is produced by the initiation of an A-ing by the reference of c; and
> (2) there is a range of notions F of bodily properties, spatial properties, and past tense properties F such that the creature is capable of being in mental states or enjoying mental events with the content c is F; where in these attributions,
> c is F
> is accepted (in central basic cases) if and only if
> this body is F
> is also accepted. (293)

The second condition picks out a set of potential predicates, including spatial predicates, such that accepting that they apply to c entails accepting that they apply to a body, suitably described as "this body". On Peacocke's view, applying certain properties to c, where c affords the description "this body", makes of c a genuinely first-personal content – hence suitably captured in

[66] In Peacocke's nomenclature, lower case letters indicate the nonconceptual nature of the contents at stake.

descriptions like "my body" – insofar as the first condition is met as well. The first condition states that the reference of c must be such that it is possibly thought of as initiating an action within a given range of actions, where the initiation of the action is what causes the mental state in which the reference of c is thought of in this way.[67] A given mental state will have a first-personal content of the type "my leg is bent" only if it is possible for its subject to have mental states in which actions are predicated of this leg, where these actions are initiated "by the leg" and, crucially, this initiation is what causes the mental state of the subject.

Because of the second condition, Peacocke calls his account the *Agency-Involving Account*. The Agency-Involving Account incorporates a reference to the subject within the content of first-personal mental states involving the body. It does so by means of appealing to the fact that the body in question is the body *of the initiator* of a given bodily action. In other words, a body is represented as one's own if it is the body with which the creature having the relevant mental states can act, and the actions of which cause the occurrence of the mental states that represent things thus. Hence, it seems to be a consequence of the view that one will *experience* a body *as one's own*, not only if it necessarily is the body the spatial (and past) properties of which one experiences, but also if it is the body one is capable to relate with *as an agent*.

De Vignemont (2017, section 2; 2018, section 9.1, Chapter 9) puts forward a set of objections to purely agentive accounts on the SBO.[68] She indicates, on the one hand, that action planning, based on the body schema, is impervious to the fact that subjects feel ownership for the rubber hand in the RHI. On the other hand, she points out that tools are incorporated in the body schema, and hence taken into account for action planning, but we do not feel ownership for them. De Vignemont does not take these data to indicate that agency plays no role in ownership. Rather, on her view, the set of actions A relevant for a subject to feel the body with which she makes one of the actions in A as her own needs to be refined. In particular, A is a set of *protective* actions.

De Vignemont's current view incorporates the idea that token conscious bodily sensations gain their spatial content by reference to a background, multimodally informed bodily map which is relatively stable. She uses the metaphor of a rubber band (2018, 92) to convey the idea that the shape and limits of the map are flexible, but yet only limitedly modifiable. This being so,

[67] By "thought" here I simply intend to capture c's status as the content of a mental state.
[68] Among which her own 2007 account.

she makes a case for the best candidate map to ground the SBO to be what she calls the *protective body map*. This is a type of *hot* map, containing both descriptive information and directive indications, just as the body schema does. Yet, the kind of actions that this map is posited to elicit are actions intended to protect the body from potential threats. On her view, "the protective body map represents the body that has a special value for the organism's evolutionary needs" (182), so that "one experiences as one's own any body parts that are incorporated in the protective body map" (ibid.).[69]

The role of the body map in de Vignemont's proposal is refined. It is not via an appeal to the map itself that bodily sensations putatively gain their phenomenology of ownership. Sensitive to the objections to her own view raised by Peacocke (2015), similar in spirit to the ones raised in this chapter to Bermúdez's spatial account, de Vignemont writes the following:

> [T]he bodyguard hypothesis assumes only that the function of the protective body schema is to represent the boundaries of the body that matters for survival; it does not assume that it represents the boundaries of the body that matters for survival *qua one's own*, even in a nonconceptual way … But then one may wonder what is at the origin of the first-personal dimension of the sense of bodily ownership: how am I aware that this hand is *mine*? (2017, 227. The first emphasis is mine)

This way of phrasing the problem, as well as the answer she proposes to the question, seem to me an acknowledgment of the need to cash out bodily experiences in a way that captures the reflexivity articulated at the outset of this chapter. On de Vignemont's view, the reference to the subject is gained by the *affective* phenomenology associated to those sensations falling into the protective body map.

The protective body map does not only represent the body's spatial boundaries, but it represents spatial boundaries that have an affective valence. This lies at the basis of its motivational force – it lies at the basis of the set of actions motivated by the map, namely protective actions (2018, 186). In this context, the SBO has a characteristic phenomenology that goes beyond the sensory component of bodily experiences and cannot be reduced to it: rather, it is affective phenomenology which marks out felt limbs as one's own.

[69] The latter quote expresses her *bodyguard hypothesis*.

The kind of move by which, on de Vignemont's view, protective action is crucial to the reflexivity of bodily sensations is, I think, similar to Peacocke's (2017), although more selective as for the kind of actions relevant. Protective actions are *narcissistic*, in that I perform them on the body, or for the sake of the body, that is significant *for me* or that *I* care about: "under normal circumstances bodily experiences present the body in its narcissistic relation *to the self*: *I* am aware of the evolutionary significance of this body part *for me*" (2017, 228. My emphases). In both views, the appeal to bodily actions brings in an appeal to a more general notion of subjectivity beyond the very fact that we need to explain – namely beyond the fact that we qualify a body in first-personal terms. In particular, bodily actions bring in an appeal to the subject *of whom* we want to say that she feels the body as her own. The subject is brought in either as the agent of the bodily actions or as the subject for whom the body has enough of an import.

This sort of move seems to me to be exactly on the right track. As I put it in the opening of the present chapter, what I express by tokening "my" in the content position in "I can feel that my legs are crossed" can be decomposed thus: "I can feel that the legs of *the experiencer of this somatosensory experience* are crossed, and *I am the experiencer of this somatosensory experience*". This was just an illustrative way of conveying a general moral: the token of the first-person possessive pronoun in the content position in canonical expressions of judgments of somatosensation contains a reference to the subject of the experience qua subject of the experience. To my mind, this is exactly what it means for bodily experiences to concern "the self". This is the specific sense in which judgments of somatosensation are reflexive, I claimed. It is also the specific sense in which, I argued, the deflationist accounts assessed are not reflexive enough.

The proposal that I put forward in the next two chapters does not appeal to agency or affectivity. Assessed in relation to Peacocke (2017) and de Vignemont (2017, 2018), the proposal points out the following: (part of) the sensory content of bodily experiences that both authors assume yields, by itself, a picture of bodily experiences that grasps the relevant sort of reflexivity. On my view, the involvement of localised properties in bodily experiences – contained in Peacocke's second condition, and in de Vignemont's thorough analysis of bodily space representation (2018, Part II) – suffices to bring in an appeal to the self that makes for an account of the SBO. This is so, I will

argue, if we take into account a further datum about our psychological lives, namely that we have a SEO.

This is not to say that the capacity to control the body, or the affectively loaded reactions we have for its sake, are not part of ordinary experiences of ownership. Rather, the project is to settle the explanatory building blocks of the SBO on a more fundamental level that might, in turn, ground our sense of agency and bodily affectivity. Given this difference, it seems to me worth having my alternative proposal articulated, if only for the purposes of later carrying out a thorough comparison between it and agency or affectivity based accounts. This comparison might well tip the balance in favour of one of them. In any case, I will not carry it out further in this dissertation.

Chapter 3

My Body Is the Subject's Body

In this chapter I put forward a novel account of the SBO. I will call it *Explicit Reflexivity*. The view I will defend is an Experientialist Account: it is a new attempt to spell out the first-person that shows up in the content position of judgments of somatosensation in terms of the contents and phenomenology of experiences themselves, independently of bodily self-attributions. Here is a brief statement of the view:

> [*Explicit Reflexivity*]: for a subject to have a SBO is for her to *be aware* of:
>
> A. the experience-dependency of the properties involved in the content of somatosensory experiences – even when, in reports of these experiences, we predicate properties of the body itself;
> B. the relevant experiences (namely somatosensory experiences) as being her own.

I open the chapter by presenting a quick layout of Explicit Reflexivity in section 3.1. This layout contains all the main tenets of the view, as well as an introduction of the basic terminology and working definitions. The various notions and argumentative steps will not be fully substantiated at this stage. Hopefully, though, this layout will offer the reader an overall picture of the proposal that will help her go through the chapter. Note that the order of appearance of the various parts of the view in this layout might not exactly coincide with their order of appearance later in the chapter.

3.1. Explicit Reflexivity: A Layout of the View

The following points summarise the various moving parts of Explicit Reflexivity:

(i) The content of somatosensory states generally has a dual structure. On the one hand, somatosensation involves *bodily awareness*. On the

other hand, it involves awareness of *non-bodily* or *worldly* objects or space.

(ii) Our focus is on *bodily awareness* in somatosensation. On a very minimal description, bodily awareness in a given somatosensory experience consists in the sensation as of a *property* instantiated in a *location*: for instance, the sensation as of one's finger being Depressed against an obstacle. I will use the label "Properties^{S}", where the superscript "^{S}" stands for "somatosensation", to refer generally to *properties as they are involved in somatosensation*. Token somatosensory experiences hence involve Properties^{S} as part of their content.

(iii) There is something it is like to feel Properties^{S}. For instance, there is something it is like to feel one's finger Depressed against an obstacle. In this sense, Properties^{S} are *qualitatively rich*.

(iv) The sensation as of the location of Properties^{S} involves the *phenomenal salience of the boundaries of the felt body* in somatosensation. In virtue of this, (i) is the case.

(v) Claims (i) to (iv) support the contention that somatosensation involves a sensory field. I will call this sensory field *bodily field*. The bodily field allows somatosensory experiences to represent non-bodily or worldly objects or space.

(vi) Properties^{S} are *sensational properties*: they are *properties of the bodily field*. This explains the notion of experience-dependent properties in the context of Explicit Reflexivity.

(vii) Somatosensory experiences *typically present Properties^{S} as properties of the bodily field*. This explains the notion of being aware of the experience-dependency of properties central to Explicit Reflexivity.

(viii) Therefore, token somatosensory experiences have as (part of) their content properties of the bodily field that are presented as such. The primary object of token somatosensory experiences are Properties^{S}.[70]

(ix) Properties^{S} ground representational properties. The latter *stand for*, and are *typically taken to stand for*, properties of the *actual, physical body*

[70] Note that, once claims (v) to (viii) are motivated, it will be justified to read the superscript "^{S}" in "Properties^{S}" as standing for "sensational".

that has caused the relevant somatosensory experience. Let us call these representational properties Properties^{RB}, where "^{R}" stands for "representation", and "^{B}" stands for "body".

(x) It is arguable that Properties^{S} ground yet another type of representational properties, which we can call Properties^{RW}. This is because, in virtue of the instantiation of Properties^{S}, somatosensory experiences also *represent non-bodily or worldly objects or space*.

(xi) The *bodily field is constituted by a sufficient set of actual and potential Properties^{S}*. In other words, it is constituted by the composition of the contents of a sufficient set of occurrent or possible somatosensory experiences.

(xii) The spatial content of token somatosensory experiences will have to be specified relative to (the contents of) other experiences making up the field.

(xiii) By (ix), *the bodily field is a representation of the body*: it stands for the actual, physical body that typically causes the relevant set of somatosensory experiences.

(xiv) In judgments of somatosensation, we often predicate properties of our actual, physical body. A paradigmatic case of this is *proprioception*. The relation between Properties^{S} and Properties^{RB} explains this fact.

(xv) Some of our concepts of sensation arguably refer to sensations themselves instead of referring to properties of the actual, physical body. This might be the case of the concept *Pain*. Explicit Reflexivity can appeal to a special phenomenal saliency of Properties^{S} in these cases in order to explain this fact.

(xvi) Proprioceptive experiences and experiences of pain are alike as for the involvement of Properties^{S} in their content.

(xvii) For each conscious somatosensory experience, it has as part of its content a Property^{S} presented as such.

(xviii) In other words, for each conscious somatosensory experience, it has as part of its content an experience-dependent property presented as such; or subjects experience (part of) their content as dependent on the occurrence of the very experience it is (part of) the content of.

(xix) *Subjects typically have a SEO for the somatosensory experiences they undergo*.

(xx) Therefore, *subjects typically have a SBO*: they self-attribute the contents experienced as dependent on the occurrence of their own experiences.

(xxi) There is typically one single physical body suitably wired so as to cause the relevant somatosensory experiences of a subject. Her judgments of self-attribution will latch naturally onto this one single physical body.

Claims (ii) to (iv) summarise some basic assumptions of the debate, as well as some central tenets of Spatial Deflationism. I will draw on them in my argument for Explicit Reflexivity, but I will not argue for them. Claim (v) brings in and elaborates the notion of sensory field contained in Martin's version of Spatial Deflationism. Claim (vi) brings in and elaborates the notion of experience-dependency, and hence of reflexivity, contained in Dokic's Property Deflationism. The argument for claims (v) to (viii) is offered in sections 3.2.1, 3.2.2, and 3.2.3 of this chapter, which also specify claim (i). By this argument, clause A of [*Explicit Reflexivity*] is defended.

Claims (ix) to (xiii) are articulated in section 3.3.1; and claims (xiv) to (xvi) are articulated in section 3.3.2. These claims offer a complete substantiation of clause A of [*Explicit Reflexivity*]. Claim (xix) was put forward as an assumption in Chapter 1 of this dissertation. I will delve into it in section 3.3.3 of the present chapter, drawing on reformulations (xvii) and (xviii) of the previous points, but will not argue for it further. Note that (xix) corresponds to clause B of [*Explicit Reflexivity*]. The last two claims, (xx) and (xxi), summarise how Explicit Reflexivity accounts for the SBO. I will clarify this in section 3.3.4.

Figure 1 at the end of this chapter illustrates the main tenets of the view. I invite the reader to check the figure throughout their reading of the chapter.

The discussion to come contributes, at the very least, to the by itself worth pursuing project of filling in the logical space of possibilities as for accounts on the SBO. More ambitiously, I actually suggest that if we cash out the contents of somatosensory experiences in the way proposed – and if the reasons I offer to do so are sound –, then a view on the SBO is at our disposal that has a remarkable explanatory potential.

To start with, recall that the three desiderata advanced at the outset of this thesis have been proposed as the yardstick to assess any given view on the SBO. These desiderata were motivated by several facts that, I contend, theories

on the SBO ultimately intend to explain. As a central virtue over the proposals critically examined in Chapter 2, Explicit Reflexivity allows to meet the goals, or so I will argue.[71] Moreover, I contend that my proposal accounts for the SBO in a way that avoids establishing a brute identity between the SBO and that which specifies it. Finally, Explicit Reflexivity establishes an explanatory relation between the SEO and the SBO, as it holds that the SBO depends on, or is partly constituted by, having a SEO for the experiences the content of which one self-attributes. Prime facie it makes sense that this, and not its converse, is the explanatory relation holding between the SEO and the SBO, since the former is a much more pervasive phenomenon than the latter. The advantage of this explanatory move has been sufficiently motivated: knitting things this way, Explicit Reflexivity paves the way for a unified account of self-consciousness in somatosensation. As I see it, all these factors contribute to the appeal of the view that I now proceed to present.

3.2. First Pass

Let me repeat Explicit Reflexivity from above:

> [*Explicit Reflexivity*]: for a subject to have a SBO is for her to *be aware* of:
>
> A. the experience-dependency of the properties involved in the content of somatosensory experiences – even when, in reports of these experiences, we predicate properties of the body itself;
> B. the relevant experiences (namely somatosensory experiences) as being her own.

In this section I proceed to defending clause A, which contains various elements. To begin with, clause A features the idea that the content of bodily experiences involves properties. Clarifying the nature of these properties is an essential part of what is involved in spelling out A. For the moment, I will proceed on the assumption that, when one feels the body in somatosensation, one has *a sensation as of* a property instantiated in a location. For instance, one might feel the Painfulness[72] of an ankle, the Position of a hand, the Movement

[71] See Chapter 4, section 4.2.
[72] Called "Damage^S" in the previous chapter. I will stick to "Damage^S" later in this chapter.

of one's guts, or the Depression of a finger against an obstacle. Following in the notation introduced in the previous chapter, I will use "Properties^{S}" as a placeholder for properties such as Painfulness, Position, Movement, or Depression: properties as they are sensed in somatosensation, where this is still neutral with respect to their nature. The superscript "^{S}" in "Properties^{S}" stands for "somatosensation".

The examples just mentioned bring out a second relevant element involved in clause A: in judgments of somatosensation, we often predicate properties of, or locate them in, the actual, physical body. For instance, we claim that *our leg* moves or that *our ankle* hurts. This is a fact that we need to retain throughout this first pass. Explicit Reflexivity certainly must be able to accommodate this fact. I contend that it can do so, but the tools needed to detail how will only be at our disposal in the second pass of the argumentation (section 3.3).

More controversially, clause A also states that *Properties^{S} are experience-dependent*. Hence, Explicit Reflexivity has it that for all Properties^{S}, they need to be understood as properties that constitutively depend on the token experience they are a content of, in the sense that they would not be instantiated if the experience were not occurring. Besides, by clause A Explicit Reflexivity holds that, when undergoing bodily sensations, subjects *are aware* of the experience-dependency of Properties^{S}. This marks a crucial departure from Property Deflationism: the experience-dependency of Properties^{S} is itself part of the explicit content of the experiences, and thereby informs their phenomenology.

The task of clarifying what is exactly involved in Properties^{S} being experience-dependent amounts to spelling out the nature of the properties: the task is to specify the nature of these properties in a way such that they have this feature. The claim that subjects *are aware* of the experience-dependency of Properties^{S} does not follow straightforwardly from the claim that Properties^{S} are experience-dependent: it requires a further argumentative step. These steps will be taken immediately in what follows by means of introducing the *bodily field*.

3.2.1. A Sensory Field

In a nutshell, I shall unpack the notions of *experience-dependency* and *awareness of experience-dependency* in this subsection by relying on the following pattern of reasoning: in the case of sensory states, experience-dependent properties can

be cashed out as properties of a sensory field. In particular, the properties involved in somatosensory experiences are experience-dependent *in the sense of being properties of a sensory field*. Therefore, for a property of this sort to be experienced as experience-dependent means for it to be *experienced as a property of a sensory field*. Being aware of the experience-dependency of perceived properties thus means *being aware of a sensory field as such*. In the particular case of somatosensation, the sensory field involved in bodily experiences is experienced as such in all non-pathological cases. I shall call this sensory field "bodily field".

Let me now proceed to substantiate the reasoning by establishing the notion of sensory field, as well as introducing the idea of a subject being aware of it as such. I will do so by borrowing some of Christopher Peacocke's[73] ideas on the visual field in his account of colour perception. My subsequent points about the bodily field will work by comparison to some of his remarks about the visual field. However, nothing of what I will say about the phenomenology of bodily experiences hangs on Peacocke's picture being adequate for colour perception.

On Peacocke's account, it is essential to perceptual experiences that they have what he calls *sensational properties*: properties relevant to the specification of the experience's what it is likeness that the experience does not possess in virtue of its representational content. According to Peacocke, an illustrative example of an experience with this sort of properties would be the following:

> When you close your eyes and point your head in the direction of the noonday sun, you have a visual experience in which there are colours and shapes, and usually some motion, in your visual field. It does not thereby look as if there are objects or events in your spatio-temporal environment. (2008, 8-9)

If the experience has no representational content, and yet it can be said to have properties, in that there is something it is like to be in it, then these properties are not possessed by the experience in virtue of its representational properties: these are sensational properties. For instance, the Redness one might perceive as free floating when pointing one's head, eyes closed, at the noonday sun, is a property of this sort. However, on Peacocke's view the experience here described is anyway relational:[74] it involves a relation between the experience

[73] Peacocke (1984) and (2008).
[74] I borrow here Pautz's (2010) terminology.

itself and some item different from it. This object of the experience is, on his account, a visual field: to the question "What is the free floating Redness in this scenario a property of?", the answer is: "It is a property of a visual field."

One reason to posit the existence of a visual field modified by intrinsic sensational properties is the very possibility of experiences as the one just described. Along the same lines, it can be argued that the possibility of afterimages supports this notion too: suppose that, after pointing your closed eyes to the sun, you open them and let your gaze rest on a surface in front of you. As a result of the intense light on your retina, you keep seeing a few red free floating patches occluding some bits of the surface – crucially, patches that you do not take to be actual objects in the environment, nor stains on the surface itself. These patches arguably are properties of your field of vision.[75]

However, on Peacocke's view, *all* colour properties are properties of a visual field. Otherwise stated, all visual experiences are such that they involve a visual field that instantiates some of its properties. The reason to hold this thesis is that, in principle, in all cases of visual perception one can perform a switch of attention so that one focuses on sensational properties. The following is an example of this:

> Suppose you are in a flat area of Japan. You may perceive a bullet train in the far distance, and you may perceive it as moving extremely fast. Your experience has the representational content that it is moving fast. But it may be moving rather slowly across your visual field, and that too is something of which you can become aware. It may be moving across your visual field at the same rate as a nearby cat that is moving very slowly across a path in front of you. This sensational property is a property that the train and the cat can share with some speck of colour that moves slowly across your visual field in an experience which … has no representational content. (ibid., 15-16)

What we would be doing in this case would just be making the visual field apparent, that is, focusing on it in the experience. The difference between the ordinary visual experience as of a train at the far distance and the experience that results from the switch of attention is that, in the latter, one is aware of the visual field *as such*. This is what focusing on sensational properties is about. The

[75] This account of afterimages, which Peacocke defends, is not uncontroversial. In fact, as I shall argue below, an alternative account of afterimages might be preferable (see Chapter 4, section 4.1.1). I am resorting to this description of the phenomenon, which I find prima facie intuitive, to help illustrate what we understand for a visual field, as well as for experiencing the visual field as such. Nothing in my view hangs on this account of afterimages being adequate.

noonday sun case and the case of the afterimage would be analogous to this, the only difference being that, in them, the visual field becomes apparent without the need of an attentional effort. What is crucial to all these cases is that one is aware of the properties of the visual field without taking them to be properties of anything in the environment.

To repeat, the possibility of performing switches of attention of the sort described in all visual experiences gives reason to claim that something like a visual field is involved in all such experiences as that of which at least colour properties are actually properties of. Notice that the experiences in which one is aware of the visual field as such are experiences in which something like a "veil of colours" stands in front of the perceived objects (Boghossian and Velleman, 1989, 95). Thus, a fair question that a supporter of this view will have to address is how to account for the characteristic transparency of visual experiences – namely how to explain the fact that, in ordinary experience, nothing like such a veil seems to stand between us and represented objects, or in other words, that colour properties are actually predicated of the objects in the environment.[76]

This is, however, not a worry I have to deal with right now. My aim here is to use the foregoing cases and Peacocke's discussion of the notion of a visual field in order to offer a definition of a general notion of sensory field. The visual field is something it makes sense to talk about in the context of occurrent visual experiences: it is the region in which objects visually appear. In parallel, sensational properties have been defined as properties of the visual field. In this sense, these properties – colours, in our example – are experience-dependent properties. Being aware of the visual field as such – namely focusing on the "field of experience", as opposed to focusing on the objects that appear in it as represented in the experience – is just being aware of the properties of the field *as* properties of the field. In other words, it just means being aware of these properties as experience-dependent. At the risk of stretching the meaning of his words a little, Peacocke seems to have something along these lines in mind when he says that "[i]nsofar as we can make sense of a *subjective* space at all, it is precisely such space as is alleged to be involved in the visual field" (2008, 10. My emphasis).

More generally, the sensory field of a given experience type is the frame within which the objects represented in experiences of the type appear. For this reason, it makes sense to talk about a sensory field only to the extent that

[76] Peacocke (2008, 16) addresses this point.

experiences occur such that they involve objects appearing within the field. Besides, the sensory field is also that of which properties of the experience can be predicated that are not properties the objects represented within the field are experienced as having. Yet, one can focus on these properties, since they are experiential properties.

To recall, the central thesis contained in clause A of [*Explicit Reflexivity*] is that in bodily experiences we typically are aware of properties as experience-dependent. This can now be restated thus: in normal cases, bodily experiences are experiences in which a sensory field is apparent as such. The latter should unpack the former via the claim that, in bodily experiences, we typically are aware of properties as properties of the sensory field. Note that this assumes, rephrases, and supersedes the central tenet of Property Deflationism, namely that bodily experiences involve experience-dependent properties.

At this point, two steps need to be motivated in order to make my claim sound, which parallel the considerations just made about the visual case. The first one: it makes sense to talk about somatosensation as involving a sensory field – namely *it makes sense to talk about a bodily field*. The second one: *in bodily sensations we are aware of the bodily field as such*. In the next subsection I will motivate these two points in turn. In order to do so, I will draw on the considerations about a sense of boundedness included in Spatial Deflationism.

3.2.2. The Bodily Field

When it comes to somatosensation, the involvement of a sensory field is specially salient in haptic touch. I will now resort to the observations on this type of experience made in Chapter 2, in order to establish that there is at least one case of somatosensation for which it is sound to claim that it involves a sensory field.[77] Afterwards I will proceed to generalise the point to all bodily sensations.

Haptic touch is the perception of objects by actively exploring them with a body part. Recall that feeling the irregularities of the edge of a table by caressing it with the tip of the fingers is a case of haptic touch. This experience,

[77] Specifically, I resort to the observations made in section 2.2.1 of Chapter 2. Note that, on the grounds of these observations, Martin (1992) concludes that the *way* the sensory field is involved in touch is crucially different from the *way* a sensory field is involved in sight. On Martin's view, this difference concerns the salient role of bodily awareness in the latter. In this chapter I operate with a general notion of sensory field that encompasses both vision and touch, and yet is compatible with there being the difference between the two described by Martin.

and haptic experiences generally, is mainly object-directed: one engages in it in order to perceive the properties of an object other than the body. The external objects perceived in touch arguably constitute what is represented in the experience. However, when touching the edge of the table not only do I feel the rough wood but I am also aware of the pressure on my fingers. In fact, the content of haptic experiences is typically said to be *dual*: it involves both awareness of external objects and of the body. In other words, at least the following is true: the tactually accessed properties we are aware of in haptic experiences will be attributed to two different entities in judgments about such experiences, namely the touched object, to which we might attribute Roughness, and the body. For instance, we might feel the fingers Depressed to different degrees by the irregular surface.

The involvement of the body in haptic experiences in this sense is crucial to my point: the objects of touch appear in correlation with our awareness of certain bodily regions that match the shape of perceived objects. The body is part of what one is aware of in haptic experiences: it is the region where the non-bodily objects of experience appear. Contrasting the phenomenology of touch with that of vision, Mike Martin said that "[n]ormal visual experience is essentially experience of objects as they fall within the visual field; tactual experience is essentially experience of objects as they press from the outside onto the limits of a felt sensory field" (1992, 210). This is so to the extent that, as mentioned, the objects of touch appear distributed within, or against, the surface of the body.

Let us settle on *bodily field* as a label for the sensory field as involved in touch. This label intendedly grasps the following ambiguity: on the one hand, I am talking about a region where the worldly objects of the relevant sensation, namely touch, appear. This entitles me to talk about a sensory *field*. On the other hand, it is clear that the involvement of the field in the experience has to do with our awareness *of the body* in the experience. This explains why I talk about a *bodily* field. The imbrication between these two features – the involvement of a sensory field in somatosensation, and the bodily awareness in the experience – will be spelled out in due time. For the moment, let us stick to the idea that the bodily field gains its status as such with respect to objects *other* than the body.[78]

[78] More specifically: with respect to objects *other* than the body *qua bearer of the status of field of sensation*. Of course, haptic touch can be directed towards the body: one can palpate a lump on one's thigh with one's hand, for instance. In this case, the thigh is the object represented in the

To sum up, the tactile experience in which one perceives, for instance, the Roughness of the table and focuses on it involves awareness of the Depressed fingers. The latter is an experiential property that is not experienced as a property of the represented object, and the element to which this property is attributed in the experience is that against which the object of the experience appears. However, it must be added, one can switch attention in the experience and focus on what one feels on one's fingers, namely their being Depressed, when touching the table.

Before moving forward in the reasoning, a caveat is in order. In the reflections on the visual field above, it was shown that sensational properties are not properties of the seen objects, but still they are experiential properties *because* they are properties *of the field*. Now the properties that, I have just claimed, hold the key to positing the bodily field in somatosensation are properties such as being Depressed. However, on the face of it, being Depressed is a property we would predicate *of the fingers* – even more: it is by all means a property of them, namely of the physical body. Even if I have claimed that the involvement of the bodily field in the experience *has to do with* our awareness of the body in the experience, it has also been indicated that the imbrication between the two needs to be spelled out: it is not meant to imply that the bodily field involved in somatosensation *is identical to* the body – which would follow if being Depressed were, simultaneously, a property *of the field* and *of the body*. Hence, for the sake of caution and neutrality on this front, it is convenient to stick to our familiar notation to label the experiential property involved in this toy case of somatosensation: to be precise, the haptic experience just described involves the property of being Depressed^{S}. Recall that this label just stands for the property as that of which we have a sensation: in any case, one that will not be predicated of the touched table. Cashing out the property in this way allows to capture the aforementioned ambiguity: we are talking about a property of the region where the object of touch appears; and the involvement of this region in the experience is somehow related to our awareness of the body in the experience. As a matter of fact, no more than these elements are needed to make the current point about the bodily field in somatosensation.

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tactile experience, at least in the sense that attention will typically focus on it; and in parallel, the touching hand is that against which the thigh appears – namely that which provides the sensory field to the tactile experience.

In sum, the foregoing considerations establish that it makes sense both to talk about haptic touch as involving a sensory field, and to call this field "bodily field". The claim to be motivated, however, is not only that (the relevant case of) bodily experience can be plausibly described as involving a bodily field, but also that this is how we experience the field in the sensation: *as a* sensory field. Now, what does this exactly amount to?

In the discussion on the visual field above, it was pointed out that the experiences in which one is aware of the visual field as such would be ones in which something like a "veil of colours" would stand in front of the perceived objects. And it was noticed that, while this veil of colours might be an intuitive element to posit in experiences such as the one involved in the noonday sun case or in afterimages, it seems to be in tension with the characteristic transparency of ordinary visual experiences, in which nothing like such a veil stands in front of represented objects. In this sense, by being aware of the field as such, one's sensory experience becomes non-transparent.

The observations just made about haptic touch give us the clue to the following: sensory experiences that involve a bodily field are not transparent, precisely because of the involvement of the field. On these grounds, the claim that, in them, we are aware of the bodily field *as such* is sound.

The details of the previous example allow to show this point clearly. When feeling the irregularities of the edge of a table by caressing it with the tip of the fingers, one has a tactile experience that represents the edge of a table and its properties. But, we said, haptic touch involves bodily awareness. More specifically, in tactile experiences in which objects other than the body are represented, the region where the objects of touch appear is always itself present, at least in the sense that there are properties that will be attributed to it in subsequent judgments about the experience. These will be properties of the experience that will not be attributed to the non-bodily object represented in it. The property of being Depressed^{S} is one of these. To put it briefly, in haptic touch the body always "stands on our way" to objects.

To conclude the reasoning, note that bodily awareness is typically said to be recessive: we do not normally pay attention to the body we feel but rather, for example, to the objects of touch. Even so, it is not clear what it would mean to be aware of the objects of touch if bodily awareness were not involved in the experience at all. In other words, the following counterfactual seems true: we could not be tactually aware of objects if we were not aware of

the body while touching them.[79] The involvement of bodily awareness in haptic touch seems necessary. Still, whether or not bodily awareness is *necessary* to tactile awareness of objects is not integral to the point I am making. The point is rather this: if we are aware of the body in touch, then we are aware of it as something which veils, and against which, objects of touch appear. In any case, there doesn't seem to be anything wrong to the idea that recessive awareness be, anyway, awareness proper. These considerations should suffice to establish that, at least for one type of bodily sensation, it makes sense to talk about it as involving a sensory field we are aware of as such.

3.2.3. Generalisation

The point is now sufficiently clear for the case of touch. However, the proposal submitted in this work is supposed to generalise to all bodily experiences – from touch to pain or proprioception. The alleged difficulty of this generalisation lies in the following: pain or proprioception – among others – do not clearly involve worldly, non-bodily objects as objects of the experience. However, the notion of sensory field I have been dealing with here is, for a start, that of a field within which objects represented in sensory experience appear, where these objects stand as distinct from the field – from the bodily field in this case. On these grounds, how can we say of pain or proprioception that they involve a sensory field? And how can we ultimately say, then, that by having these experiences we are aware of a sensory field as such?

In order to answer this worry, I will resort to some of the observations on the sense of boundedness put forward and discussed in the previous chapter. These phenomenological considerations help to show that the awareness of the body indisputably involved in these cases is similar, in the relevant respects, to that involved in haptic touch. Thus, we can draw similar conclusions relative to the bodily field as involved in these experiences.[80]

Bear in mind that according to Martin, Bermúdez and de Vignemont (2007), by being aware of properties localised in the body, in bodily experiences we are aware of the boundaries of the body. For instance, being aware of the relative disposition of one's arms by having proprioceptive

[79] In fact, Martin (1992) goes so far as to say that we are aware of objects of touch in virtue of paying attention to the body in a special way.

[80] At this point of the argumentation, I still retain the ambiguity between talking about a sensory field and talking about bodily awareness, captured in the expression *bodily field*.

feedback from them implies being aware of their (apparent) extension, that is: the limbs seem to extend to at least the point in space where the relevant properties feel to be located (Martin, 1993, 210-2; 1995, 271). This being so, localised bodily experiences involve awareness of how the felt body is disposed within a space that goes beyond that in which one actually feels the body to be. The idea of being aware of the bodily boundaries thereby allows to extend, mutatis mutandis, the idea of the dual content just discussed for haptic experiences: somatosensation involves awareness of the limits of the body with respect to something which is different from the body. In this sense, it is not true that *only* the body itself is involved in the content of the mentioned somatosensory experiences.

Surely, the fine-grainedness with which we can typically describe the features of the external objects of touch is usually greater than that with which we can describe anything beyond the body based on proprioception, for instance. For example, I could in principle give various details regarding the knots and bumps of the worktable I touch with the tip of my fingers, whereas what I can predicate of the space surrounding my legs on the basis of my current proprioceptive experience of them does not go much beyond the fact that no objects in it are adjacent to my limbs. But the greater fine-grainedness with which we can describe the objects of touch plausibly is a function of the fact that, in it, objects press against the bodily boundaries: in other words, it depends on the fact that the bodily boundaries themselves are also phenomenologically much more precise and salient in tactile experiences than they are in other cases. That the awareness of boundaries, and hence the awareness of that which is non-bodily, is gradable, is anyway compatible with its involvement in each conscious bodily sensation.

In sum, the point now is that pain or proprioception, by involving bodily awareness in the way they do, involve awareness of something which is other with respect to the body. But admittedly this is not yet a claim about the former constituting a field within which, or against which, this "other" object of bodily sensation appears. In fact, this idea seems particularly obscure if that "other" is just the (empty) space within which the body is inscribed.

Insisting anew on the boundedness involved in ordinary bodily sensations will help overcome this difficulty: the bodily dimension of our tactile experiences, on which we can focus by switching attention in the experience, is phenomenologically akin to the bodily awareness involved in our localised sensations of pain, position, or movement, in that the spatial component of all

such experiences conveys the feeling of a body extended to a certain point, more or less precisely delimited. In the cases in which the bodily boundaries are not marked by the pressure of objects against them, the body is anyway something that *would* "stand on our way" to objects if there were any – and this is something we manifest awareness of, for instance behaviourally, by trying to dodge the objects in our immediate vicinities by adapting the trajectory of our bodily movements in accordance with the size and shape of the limbs. Generally speaking, our awareness of the body is an awareness of non-bodily objects appearing within it, or against it, *actually or potentially*. In this sense, the dual content of bodily sensations still allows us to characterise them as involving a sensory field – more broadly construed: a region where non-bodily objects *could* appear. Again, this qualifies as a *bodily* field.

The move I made above in order to argue that, in a given conscious sensory experience, the subject is aware of the sensory field as such, relied on transparency: the sort of awareness of the field I am appealing to is that which results in the experience being non-transparent with respect to the objects beyond the field, precisely because the field veils them. This was shown by pointing out that, in subsequent judgments intended to describe the relevant experiences, some properties are not attributed to the objects represented in the field. In the cases under discussion now, this is obviously so: Properties^{S} belong to the experience, but they are not attributed to anything beyond the boundaries of the field of sensation. In particular, these properties are ultimately attributed to the body itself – which, as said, would "stand on our way" to objects. This should suffice to establish that, in somatosensation generally, subjects are aware of the bodily field as such.

It could be objected that the status of Properties^{S} in experiences such as pain or proprioception is not quite that of "properties that can be predicated from the experience but which *are not* properties *the object* of the experience is experienced as having" – which was the formulation I used above to talk about experiential properties that are experienced as properties of the sensory field. The reason why this characterisation might not seem to apply in these cases is that there is a sense in which Crossed^{S} or Damage^{S}, if they are involved in the somatosensory experiences at all, they are involved in them precisely qua properties of the object of the experience: say, the legs or the ankle respectively, namely the body more generally. This makes sense as the other side to the coin of the fact I opened this section with: pain or proprioception – to mention just two relevant cases – do not *clearly* involve worldly objects as

objects of the experience. If anything, these states concern the body, and it is the body we typically predicate the relevant properties of when reporting them.

The question is now whether this disqualifies the argument I just offered as one to the effect that we are typically aware of Properties^{S} as properties of something that makes the experience non-transparent. The answer is that it doesn't disqualify it. This is clear if we recall that, generally speaking, a sensory field gains its status as such with respect to objects *other* than itself: it is the condition of possibility of representing these objects. In particular, the bodily field gains its status as such with respect to objects *other* than the body.[81] In this section I motivated the idea that such objects might be just potentially in touch with the body: this goes with the involvement of boundaries in our bodily experiences, and the duality of content this results in. What is important to notice at this point is that, still in these cases, Properties^{S} will typically not be predicated of anything beyond the felt bodily boundaries: they will not be predicated of the worldly objects one *could* bump into. It is with respect to these objects that the relevant experiences are non-transparent. More specifically, Properties^{S} will typically be predicated of that which would allow for anything beyond the felt bodily boundaries to be represented within, or against, the bodily field: that is, the body. My second-pass articulation of Explicit Reflexivity will make clear the compatibility between the fact that Properties^{S} are properties of a sensory field and hence experience-dependent, as well as experienced as such, and the fact that we predicate properties *of the body* when reporting at least some somatosensory experiences. This will enable us to see that none of the above excludes the possibility of claiming the body to be part of the content of a given somatosensory experience at a given moment, at least in the sense that attention can be focused on it.

3.3. Second Pass

3.3.1. The Bodily Field, Bodily Experiences, and the Body

The considerations in section 3.2 show that clause A of [*Explicit Reflexivity*] [82] is sound. This second pass is devoted to showing how the proposal defended can be articulated. The claim we are at now is that somatosensory experiences

[81] That is, the body qua bearer of its status of field of sensation.
[82] Namely the claim that for one to have a SBO (partly) is for one to be aware of the experience-dependency of the properties involved in the content of somatosensation.

include as (part of) their content properties of a sensory field we are aware of as such, namely the bodily field. Otherwise stated, the content of token somatosensory experiences has to be cashed out *primarily* in terms of sensational properties. The expression "primarily" here indicates that, as I will immediately suggest, there are other types of properties involved in the content of somatosensation. Yet, they are grounded on sensational properties. On my view, it is the characterisation of Properties^{S} in terms of sensational properties which finally allows for a complete account of the SBO.

I have claimed above that the involvement of the bodily field in the experience has to do with, or is somehow related to, our awareness *of the body* in the experience. A task to be undertaken in this full-fledged articulation of Explicit Reflexivity is to clarify this ambiguous claim by spelling out the relation between the bodily field and the body.

The first step needed to this effect is to get a clearer idea on what the bodily field is. We are now finally in a position to address this issue. A definition already available to us is the following: the bodily field is an *entity made up of Properties*^{S}. This means that it is via the contribution of various token somatosensory experiences, and of the composition of their contents, that the bodily field exists. A further step can be taken at this point. To the question about what *kind* of entity the bodily field is, I propose the following answer: a representation. In this respect, the bodily field might be peculiar vis à vis, for instance, the visual field: it is not just that worldly objects and events are represented in somatosensory experiences against the backdrop offered by the bodily field; but also *the bodily field itself* represents something.

Specifically – and unsurprisingly – the bodily field I am proposing *represents the body*. This is so in virtue of the fact that it is constituted by Properties^{S}, as follows: bodily experiences have Properties^{S} as part of their content, but Properties^{S} are not representational properties. Yet, Properties^{S} have "representational counterparts" that are grounded on them – let us call them Properties^{RB}. Properties^{RB} *represent* properties of the *body*. In virtue of this, the bodily field stands for (regions of) the body. Therefore, my proposal is that *the object of token somatosensory experiences is, primarily, a constituent of a field of sensation, namely the bodily field; and secondarily, the body itself, via the representational properties grounded on the constituents of the field.* In bodily experiences, *we typically are aware of the body as a sensory field*.

As an illustration, consider again the sensation of caressing the edge of the worktable with the tips of the fingers – consider, specifically, its somatosensory

aspect, namely the feeling of our fingers being Depressed against the edges of the table. The content of this bodily experience needs to be cashed out primarily in terms of the property of being Depressed^{S}. Yet, when having this sensation we represent *our fingers'* being Depressed via Depressed^{RB}, which is grounded on Depressed^{S}. Incidentally, this experience also involves the perception of certain properties of the table, such as the Roughness of its edges. It is arguable that Depressed^{S} contributes to the perception of the table by grounding, as well, a representational property that stands for the table's roughness. More generally, it is arguable that somatosensory experiences involve, as a function of Properties^{S}, the representation of the properties of worldly objects and space – we can call them "Properties^{RW}".[83]

Moving forward in defining the notion of bodily field, it is now in order to see how to specify the relations between the content of token bodily experiences and the bodily field. Note that I have claimed, on the one hand, that the content of token bodily experiences needs to be specified in terms of Properties^{S}, which are properties of a bodily field; and on the other hand, that the bodily field represents something in virtue of properties grounded on Properties^{S}. This means that the content of the bodily field is fixed via the contribution of Properties^{S}, whereas what these properties ultimately stand for needs to be fixed at least partly by reference to the representation they are constituents of.

These two ideas are seemingly in tension with one another. One way to make them compatible is to understand the relations between token bodily experiences and the bodily field in terms analogous to how Frege's Context Principle (Frege, 1950) and the Principle of Compositionality are taken to be compatible in language.[84] According to Frege's Context Principle, lexical entries have their content fixed in virtue of the content of the sentences in which they occur as constituents. In turn, according to the Principle of Compositionality, complex expressions such as sentences have their content fixed by their structure and the contents of their constituents, e.g. lexical

[83] Since the view defended here is one about the SBO, which concerns the aspect of bodily awareness of somatosensation, I do not actually need to commit myself to the idea that the metaphysical relation of grounding between Properties^{S} and Properties^{RW} goes in the direction mentioned. This direction seems, however, prima facie plausible, specially for cases such as proprioceptive experiences. Still, it is important to bear in mind that the sensational status of Properties^{S} is gained when we consider how we experience them relative to non-bodily properties.

[84] This move was suggested to me by Manolo Martínez, who referred me to his own PhD dissertation (Martínez, 2010).

entries. Prima facie, these two principles might seem logically incompatible. Besides, they also cast doubt on how the actual learning of the meaning of linguistic expressions might occur.

The apparent logical tension between the two principles has been addressed in the literature by appealing to the notions of *generic* and *specific dependence* (García-Carpintero, 2010). On this reading, the principles are compatible because the dependence postulated between complex expressions and lexical entries, and that between lexical entries and complex expressions, have to be understood as different in kind. Applying this compatibilist reading to the case that concerns us here, the idea is the following: on the one hand, the content of the bodily field *depends specifically* on the semantic properties of each particular bodily sensation making it up. This means that it is determined by the specific Properties^{S} it involves, with their corresponding Properties^{RB}. In this regard, my contention is that, at any given moment, the bodily field is constituted by the set of Properties^{S} actually instantiated at that moment, plus a sufficient set of potential Properties^{S} – and that it gets its content via the relevant Properties^{RB}.

On the other hand, the content of token bodily sensations *depends generically* on the content of the bodily field. This means that the content of each token bodily sensation could not be specified without mentioning the content of *some or other* further constituent of the bodily field it takes part in.

Note that this chimes well with one of the central contributions of Spatial Deflationism on the phenomenology of bodily space. Bermúdez claimed that the felt location of the properties belonging to the content of token bodily experiences has to be specified in terms of its relations to the properties belonging to the content of other bodily experiences. Explicit Reflexivity can assume this point. Properties^{S} are only metaphorically *localised*, in this sense: specifying the location of any given Property^{S} is specifying its relations to other actual or potential, equally experience-dependent properties. In turn, bodily experiences, via the corresponding Properties^{RB}, convey the relative disposition of actual body parts – they convey, if veridical, the actual location of bodily properties and events. In sum, these considerations establish that it is compatible to hold that the content of a representation results from the composition of its constituents, *and* that the constituents get their content fixed by reference to the representation.

The Principle of Compositionality and the Context Principle might also be found to yield an unclear picture of the *actual learning and understanding* of the

meaning of linguistic expressions. By Compositionality, understanding the meaning of a complex expression depends on understanding the meaning of its constituents, and the way they are composed. By Context, understanding the meaning of lexical entries requires grasping the content of at least some of the complex sentences in which they could appear. A fair concern here is how one can actually start to learn a language – namely how one can start to actually acquire and master simple and complex contentful linguistic items. In this regard, we can think of the process thus: first, for a sufficiently big set of sentences of the language, the meaning of the sentences in this set is learned in toto, namely without relying on their subsentential components and structural features. Then, the meaning of the constituents of the sentences in the set is worked out from the known sentential meanings, relying on the Context Principle. Finally, the meaning of all other possible sentence-constituents and sentences is taken from the information learned in the previous two stages, with the help of the Context Principle and the Principle of Compositionality (Martínez, 2010, 117). When it comes to explaining how it can actually come about that a subject has a set of bodily experiences that have a certain content partly in virtue of their participation in the composition of a bodily field, while simultaneously bearing a bodily field whose content is to be spelled out in terms of the content of the experiences that constitute it, a process analogous to the one just sketched for the linguistic case can be hypothesised.

To round up this exposition, let me add two more relevant points. Firstly, note that in normal conditions, for each subject there is a single body suitably wired so as to cause the experiences the contents of which make up a bodily field. Stated otherwise, the bodily properties which have a sensational and representational correlate in a given bodily field typically belong to one single body. *The bodily field stands for this one body*. Given the experience of boundedness, and the relation of representation between the bodily field and the body, the felt boundaries are typically taken by the subject to coincide with the boundaries of the physical object it stands for. To put it somewhat metaphorically, the body "fills in the whole of the space" within which we can possibly represent non-bodily objects in somatosensation.

This helps answer a worry that could legitimately arise in light of some of the objections to Deflationism I pressed in the previous chapter:[85] if the content of bodily experiences is always dual in the way described, why is it typically the case that only one of its sides, namely the bodily side, is

[85] Specially those against Mike Martin's account (section 2.2.1, Chapter 2).

designated, in the sense of being taken as *our own*? Explicit Reflexivity allows us to answer this question by appealing to the relative stability of the bodily representation vis à vis the variability of the non-bodily objects perceived in relation to it as something that contributes to the awareness that the former, rather than the latter, is the sensory field. The characterisation of bodily awareness in somatosensation in terms of an awareness *of the body as a sensory field* – together with part B of Explicit Reflexivity, still to be discussed –, is what discharges the explanatory burden with respect to the SBO.

Finally, to conclude this section, it is worth pointing out that Explicit Reflexivity offers the theoretical tools to spell out the following facts: on the one hand, there is a sense in which our bodily experiences are never *wrong*. Indeed, if one feels a pain somewhere in the body, it is by necessity the case that the pain is occurring (see e.g. Block, 2006). Bodily experiences certainly cannot be wrong if evaluated with respect to the bodily field: the bodily field by definition includes, at any given moment, the Properties^{S} instantiated at that moment. On the other hand, however, there is a sense in which our bodily experiences are sometimes inaccurate: bodily illusions, or certain pathological conditions such as phantom limb pain, are *wrong* in that they do not track the actual state of one's physical body. The fact that the bodily field ultimately has the status of a representation allows to say that the experiences making it up are inaccurate, if evaluated with respect to the properties of the specific body that the field has the function, and is actually taken, to represent.

With this proposal on the table, in the next section I will show how Explicit Reflexivity can accommodate some relevant phenomenological nuances of our bodily experiences. I take this capacity to be an advantage of the view.

3.3.2. Getting the Phenomenology Right

D. M. Armstrong (1962, 1968) famously proposed a division between *transitive* and *intransitive* bodily sensations. On his view, when one has a transitive bodily sensation it seems to one, on the face of it, that one's body or body part is some mind-independent way.[86] In contrast, intransitive bodily sensations are those that do not involve a clear distinction between the sensation itself and an objective state of affairs conveyed by it (1968, 309). Armstrong mentions sensations of warmth, pressure, motion, and distension as transitive; and aches,

[86] I borrow this formulation of what transitive sensations are from Richardson (2013).

pains, tickles, tingles, and erotic sensations as intransitive (1962, 1; 1968, 308-9).

I do not particularly intend to endorse the idea that these two lists of bodily sensations actually form natural kinds – nor, specifically, that each of these kinds is determined by the feature more or less precisely defined by Armstrong. Yet, I do think that his distinction captures intuitive phenomenological nuances to be found within bodily experiences. On the one hand, in at least some cases of somatosensation we indeed seem to feel that objective properties of the body are conveyed. Proprioception arguably is a paradigmatic case of this: when ordinary speakers claim to feel that their legs are crossed, they seem to mean that their legs, as parts of a particular physical object, have a certain property relative to their objective position in space. Let me call this intuition about the phenomenology of proprioception the *Folk Intuition about Proprioception* (FI-Proprioception). Contrasting with this case, there are other bodily sensations of which we would not want to say so categorically that they have this phenomenological structure – namely of which we might doubt that they primarily convey an objective property of the body. Pain arguably is a paradigmatic case here. We can call this the *Folk Intuition about Pain* (FI-Pain).

Whether or not particular bodily sensations, such as a given tactile experience or a specific interoceptive sensation, are more akin to proprioception or to pain in this respect might well be a matter of degree. My point in this section does not directly touch upon these taxonomical issues. The point I want to make is rather that, assuming that there are paradigmatic cases at each end of the spectrum, or within each class if we prefer Armstrong's classification, Explicit Reflexivity offers enough tools to accommodate each of them.

In the foregoing discussion I have appealed to several types of properties, among which: Properties^{S}, which are properties of the bodily field; Properties^{RB}, which are representational properties of the experience grounded on Properties^{S}; bodily properties; and properties of non-bodily objects. Even if, according to Explicit Reflexivity, the bodily awareness involved in somatosensory experiences is to be spelled out ultimately in terms of the first type of properties, within this framework there is room for the possibility that the other types of properties be more or less salient in the experience, for instance as a result of switches of attention. A clear example of this has already been discussed above: in haptic touch, we ordinarily focus on the properties of

non-bodily objects. Yet, switches of attention can be performed that result in tactile sensations in which bodily properties are specially salient.

With this in mind, let us focus on FI-Proprioception. For one thing, it is important to note that the intuition itself could be further qualified. FI-Proprioception advocates for a description of proprioceptive experiences as transparent. The suggestion seems to be that, when we have them, we are directly acquainted with the body itself in a way that makes it *impossible* to attend to anything experiential – such as the bodily field – without thereby attending to the external object of the experience. However, this is a very strong reading of FI-Proprioception and the transparency thesis. On a weaker reading (Kind, 2003), the point would rather be this: in proprioception, it is *difficult* to attend directly to experiential features instead of attending to the body itself.

As far as I can see, there is no clear verdict as for which of the two readings is ordinarily at stake when we hold FI-Proprioception. It might well be the case that when undergoing proprioceptive experiences one *can* shift the focus of attention from bodily properties themselves to the corresponding Properties^{S} – for instance, from one's legs being Crossed to the property of being Crossed^{S} as a property of the bodily field. In this sense, there might be some cases in which bodily sensations that typically are transparent with respect to the body itself cease to be so. This would be the implication of a weak understanding of the notion of transparency as involved in proprioception – one that would *allow for* the Properties^{S} of the experience to be revealed.[87] I do not think that there are in principle reasons to reject this possibility.

In any case, both readings of FI-Proprioception allegedly pose a challenge to Explicit Reflexivity in the following sense: if the content of all somatosensory experiences were to be specified in terms of Properties^{S}, and Properties^{S} are properties of a bodily field, wouldn't it have to be the case that *all* our somatosensory experiences, including proprioceptive experiences, be *ordinarily* non-transparent with respect to the body itself? That is, wouldn't our awareness of the body in somatosensation *always* have to feel somehow "mediated" by the field? FI-Proprioception indicates that this "mediation" either does not belong to proprioception at all – on the strong reading –, or it

[87] The attentional exercise suggested here might be akin to what Loar (2017) calls "oblique reflection" on visual experiences, a way of "discerning qualia" in vision available to ordinary perceivers.

does not belong to it in ordinary cases – on the weak reading. Indeed, proprioceptive experiences are transparent with respect to the body in normal conditions, and ordinarily no question seems to arise regarding the experience-*in*dependency of the properties involved in the experience, such as the Position of one's legs.

The postulated relation of representation between the bodily field and the body allows for a reply to this challenge. Postulating a bodily field and defining the content of bodily experiences in terms of properties thereof does not necessarily make bodily experiences non-transparent with respect to the body itself. Thus, we get the phenomenology right in the relevant cases.

A simple analogy will do to suggest why this is so. Imagine you see a photograph of a jungle in a guidebook. By contemplating the photograph, you are having a visual perception whose primary intentional object is the photograph, namely a representation of the jungle. In this situation, there is a clear sense in which you will be right to predicate of the photograph the Greenness involved in your experience. In other words, there is a clear sense in which it is the picture itself, with its patches of ink on the guidebook's page, which is Green. Indeed, certain switches of attention with respect to the default attitude of the guidebook's reader can make this sense salient: the photograph in the guidebook can, on occasion, veil the jungle it represents instead of enable its contemplation, if one pays special attention to the peculiar shades of Green of the ink on the page.[88] However, there is indeed a sense in which, in this situation, what you see when contemplating the picture is the jungle and its properties. In fact, in normal conditions – and assuming for the sake of the example that the picture in the guidebook has no artistic interest whatsoever – you will take the picture to be mainly informative about the Greenness of the wilderness. In this sense, the photograph does not *veil* the jungle at all: what you are contemplating are not the properties of the representation qua representation, but rather of the represented.[89]

More generally speaking, there is no tension between grasping properties that are themselves properties of a representation, and these properties ultimately indicating, and more importantly, being taken to indicate, properties

[88] Note that this change of attitude with respect to the guidebook reader's default attitude parallels the switch of attention within proprioception just described in the previous paragraph.
[89] The description of this example is intended to be neutral with respect to the positions in the debate in aesthetics about the transparency of photographs. Walton (1984) has famously argued that photographs are transparent, and that we literally see the objects photographed when ordinarily looking at them. Critics of his view include Currie (1995), Carroll (1995), and Gaut (2010).

of a represented object. This is what happens in ordinary cases of proprioception. Put in the terms proposed by Explicit Reflexivity, in reports of proprioception, the Position of our legs is targeted in virtue of its relation to Position^{RB}, that is, the counterpart of Position^{S}, by reference to which the latter stands for a property of a specific pair of legs.

If this is the case, then there might be yet another fair concern regarding the cases in which FI-Proprioception applies: in what sense are we exactly *aware of the experience-dependency* of the properties in these cases if, in another relevant sense, we experience properties as properties of the body itself, namely as objective?

Even at the risk of being repetitive, the answer to this worry involves insisting on the specific understanding of the locution "awareness of experience-dependency" that has been at stake here. Recall that the notion of bodily field emerges if we take bodily experiences to involve non-bodily objects as represented within the field, actually or potentially. Under the current elaboration of the notion of bodily field, the following has been suggested as a relatively straightforward proposal on how the dual content of bodily experiences is articulated: their non-bodily content is partly gained as a function of the instantiation of token Properties^{S} and their relations. This is enabled by the feeling of (bodily) boundaries involved in the experience – as mentioned before, the sharper the boundaries are felt, the finer grained the non-bodily content of the experience. In other words, the awareness of experience-dependency crucially has to do with the non-transparency of somatosensation generally *as a form of perception of the non-bodily*. Earlier in this chapter (section 3.2.3) I argued that this sort of content, and hence this sort of awareness of the bodily field as such, is indeed involved in proprioceptive experiences, and in general in experiences to which FI-Proprioception applies. The fact that in these cases we typically end up predicating properties of the body itself is due to the fact that, maybe peculiarly, the sensory field involved in somatosensation latches onto a physical body, together with the just discussed typical transparency of the representation with respect to the one object it stands for. None of this is in principle incompatible with these experiences involving awareness of experience-dependency in the sense in which I have been using the expression here.

As has emerged previously, Armstrong includes pains and aches within the class of intransitive bodily sensations: those which, on the face of it, do not involve a distinction between the sensation itself and some mind-independent

state of affairs. Even though this claim is controversial, I do think that, if any type of bodily experience falls under this description at all, then at least some cases of pain do.[90] More generally speaking, when reporting experiences of pain we do seem to be talking about the fact that we have a sensation that feels a certain way, instead of referring to some objective bodily property.

On the assumption that ordinary ways of talking about experiences reflect at least the way in which speakers take these experiences to be, and hence that it makes sense to use them as a guide to possible phenomenal differences, this suggests that the very experience of pain presents *its own* properties specially saliently. As far as I can tell, in debates in the philosophy of mind it has often been accepted, and even taken as a guideline, that our ordinary way of speaking about pain, and hence arguably our folk concept of pain, pre-eminently involves the pain qua phenomenal experience. This articulates the abovementioned FI-Pain.

FI-Pain plays a crucial role in classical discussions about physicalism: for instance, Levine's (1983) discussion of Kripke's (1972) anti-physicalist argument, which famously leads to his detection of an *explanatory gap* in psychophysical identities, exploits this idea, already at stake in Kripke's reasoning. Likewise, the Phenomenal Concept Strategy against anti-physicalist arguments reflects on the special character of the concepts we use to refer to certain phenomenal states, and on how they differ from, but are co-referential with, physical concepts (see e.g. Tye, 2009). Explicit Reflexivity contains the resources to spell out FI-Pain: in at least some experiences of pain, Properties^{S}, and thereby the bodily field, are ordinarily phenomenally salient enough so as to be the target of our thought and talk about it. If, in ordinary judgments about these experiences, we aim at reporting the character *of the experience itself*, it is because the experience-dependency of the targeted properties in these cases is specially salient. This, again, is compatible with making claims about objective bodily Damage on the grounds of a given experience of pain.

3.3.3. Introducing the SEO

Clause A of [*Explicit Reflexivity*] states that for a subject to have a SBO (partly) is for her to be aware of the experience-dependency of the properties involved

[90] Kind (2008, 291-2) mentions throbbing headaches and toothaches as falling under this description, using them to argue against the generality of the thesis of transparency. Incidentally, Block (1996, 33-4) seems to agree with Armstrong in mentioning orgasms as experiences akin to pain in this regard.

in the content of somatosensory experiences. After motivating this claim in the first pass, I have articulated it in the second pass by presenting the bodily field.

The originality of Explicit Reflexivity consists in exploiting the implications of the claim that, in somatosensation, the bodily boundaries are perceived as allowing the representation of objects and events *other* than the body. According to Explicit Reflexivity, this *means* that somatosensation involves a sensory field phenomenologically *apparent as such*. By exploiting these ideas in this way, Explicit Reflexivity makes Spatial Deflationism meet Property Deflationism: it is essential to ordinary somatosensory experiences that the qualitatively rich properties involved in them are experience-dependent in the specific sense described.

By the same token, Explicit Reflexivity goes beyond both forms of Deflationism. According to Explicit Reflexivity, conscious bodily sensations involve a representation of the body that subjects take to be the condition of possibility of a certain type of representation of non-bodily objects. That subjects *take it to be* so is just another way of saying that the structure of the content of the experiences conveys it thus, and that it thereby becomes phenomenally accessible. Accordingly, the idea that we are *aware* of the experience-dependency of Properties^{S} makes sense. According to the view here defended, bodily experiences are therefore *explicitly* reflexive.

It must be stressed that none of the views discussed in Chapter 2 was committed to the idea that the primary object of somatosensation is of the special type articulated in this chapter. This commitment is essential to Explicit Reflexivity: it is what allows for clause B of the proposal to enter into the picture. Clause B states the requirement that subjects are aware of their bodily experiences as their own. On my view, this is the move that enables the elements discussed under clause A of the proposal to finally make for an account of the SBO. In the rest of this section I outline how these two parts collaborate for such an account.

Take a token somatosensory experience, and suppose that it involves as its primary object a (constituent of a) bodily field in relation to which other objects are or could be represented. Clause A of the view says that the subject of the experience is aware of the special nature of this object. If this is the case, then what the subject is aware of is that this object allows the relevant experience to acquire its contents beyond this object. Another, rather metaphorical way of putting this is the following: the bodily field defines the

space of possible experience of objects beyond the body, where "experience" must be understood as circumscribed to the relevant type, namely somatosensation. Among the several objects we perceive somatosensorily, the body is the designated one, in this specific sense. This is articulated as part of the content of the relevant experiences.

Let us now plug in the fact that the subject *is aware that the experience the contents of which depend on the contribution of the field in this way is her own*. In other words, let us now plug in the SEO. As established in Chapter 1, the exact way in which the SEO should be specified will remain unaddressed in this dissertation. Let us assume, generally, that when one tokens the first-person pronoun in the subject position in judgments of experience, one manifests sensitivity of a certain kind to the experiences one undergoes being one's own. According to Explicit Reflexivity, the subject experiences the object of somatosensation *as her own* in the following sense: she experiences it as *the correlate of her own somatosensory experience* – in particular, as what allows the experience to have (part of) the content it (also) has.

Finally, we know that this space of possible experience is itself taken to stand for an object: the body. More specifically, we know that there typically is one single physical body suitably wired so as to cause the somatosensory experiences of a given subject. The self-attribution of (the relevant part of) the content of bodily experiences will typically naturally latch onto this specific physical body. To put it more clearly, the foregoing will be straightforwardly the case for somatosensory experiences in which the bodily field is fully transparent, plausibly ordinary instances of proprioception. In the cases in which the bodily field is not fully transparent – such as, maybe, ordinary instances of pain –, Explicit Reflexivity leaves room for there to be an owned object to the experience, even if the body itself does not clearly figure in its content. It also leaves room for the body itself entering into the content provided that the relevant attentional switches are performed.

Under the light of the notion of reflexivity as it figured in Property Deflationism,[91] a rather natural reading of the notion of *awareness of the experience-dependency of properties* – if there are natural readings of this sort of expressions at all – is one according to which some sort of awareness of a counterfactual is at stake: in somatosensation, subjects are aware that the

[91] See section 2.3.1 of Chapter 2. In that context, following Dokic, I talked about properties being *constitutively dependent* on the occurrence of token experiences, thereby "entailing the experiences themselves", in the sense that they could not be instantiated if the token experience they are a content of were not occurring.

relevant properties *would not be instantiated if the experiences of which they are a content were not occurring*. Although the question whether or not the understanding of counterfactuals has a perceptual counterpart is by itself controversial, this conditional eventually is a plausible description of Explicit Reflexivity. No more elements than those already on the table are needed to spell it out. Properties^{S} are such that, in order for them to be instantiated, an experience that bears them as part of their content needs to occur. Indeed, it only makes sense to talk about sensory fields, and about the bodily field in particular, if experiences are occurring that gain their content in relation to them. Being aware of the bodily field as such is being aware of it as the condition of possibility of the representation of other objects in the experience. That is, in other words, as a type of entity that does not exist unless it is experienced. We saw that, when presenting his notion of visual field, Peacocke used a rather metaphorical formulation to refer to it, a slight modification of which will be useful to resort to again now: insofar as we can make sense of a *subjective space* at all – or, rather, of a *subjective object* in it –, it is precisely space – or, rather, the body – as is involved in bodily sensations.

3.3.4. The Complete Picture

Explicit Reflexivity yields the following schematic description of token somatosensory experiences:

[*ER1*]. Experience$_{M}$ (P is instantiated in L)

In ER1, the subscript ($_{M}$) indicates that the experience is taken to be *mine* by the subject who undergoes it; the brackets encapsulate (the relevant part of) the *primary* content of the experience; P stands for any Property^{S}; and L indicates a felt location. This is a schematic expression of the idea that we have a sensation as of a property instantiated in a location. Thus formulated, ER1 by itself is not clear on what distinguishes somatosensory experiences from, for instance, exteroceptive experiences. However, ER1 has to be read in the context of the foregoing considerations, which establish that the following is a proper analysis thereof:

[*ER2*]. Experience$_{M}$ (P is instantiated in L of the bodily field)

ER2 specifies that L is to be understood as a given point within the network constituted by a set of Properties^{S}, namely of the properties belonging to other token experiences of the type described. In this sense, L will need to be specified in terms of its relation to other locations making up the field. By invoking the bodily field, ER2 thereby introduces the reflexivity of the experiences at stake – in the sense that they involve experience-dependent properties. In particular, it introduces it by mentioning it as part of the content of the experience. ER2, and ER1 conveniently specified in terms of the former, are thus synonyms of:

> [*ER3*]. Experience$_{M}$ (P is instantiated in L, and P is constitutively dependent on this particular experience)
>
> [*ER3'*]. Experience$_{M}$ (P is instantiated in L, and P is partly constitutive of an entity the existence of which depends on the occurrence of this particular experience)

In ER3 and ER3', the focus is set on the nature of Properties^{S}. This in turn corresponds to a specification of the nature of the bodily field, given the relation between the former and the latter. The point of proposing this twofold third formulation of Explicit Reflexivity is to include within the content of the experience an explicit reference to it: "this particular experience" refers, in ER3 and ER3', to the specific experience of which P is a content. This illustrates how bodily experiences are reflexive. Importantly, the reference to the experience included in all normal somatosensory experiences is a reference to *my own* experience in each case. When undergoing a bodily experience, subjects are therefore aware of the constitutive relation holding between the properties of the bodily field and *their own* experiences. I will further unpack how this affords the full form of reflexivity we are after – that is, the reference, within the content of bodily experiences, to the subject of the experience us such – when revisiting the Judgment Formation Goal in Chapter 4, section 4.2.1.

3.4. Conclusion

At the outset of this dissertation[92] I stipulated that for one to have a SBO is for one to be aware of the body one feels in bodily experience as being one's own. The point of accounts of the SBO, I claimed, is to answer the Constitutive Question, which is a question about the *nature* of this awareness. In this chapter I have put forward a reply to this question. In particular, I have defended

[*Explicit Reflexivity*]: for a subject to have a SBO is for her to *be aware* of:

A. the experience-dependency of the properties involved in the content of somatosensory experiences – even when, in reports of these experiences, we predicate properties of the body itself;
B. the relevant experiences (namely somatosensory experiences) as being her own.

According to Explicit Reflexivity, the SBO consists of the fact that token somatosensory experiences have the kind of content and phenomenology described: they involve (constituents of) a bodily field. Explicit Reflexivity is thus an Experientialist Account that draws on the minimal set of elements included in the content of token somatosensory experiences. [93] It does not require to posit, as part of the content of somatosensory experiences, any "positive quality over and above the felt quality of the sensation and the location" (Martin, 1995: 270). Yet, Explicit Reflexivity does count on the fact that, in general, subjects are aware of the phenomenally conscious experiences they undergo as being their own, and in particular of the bodily experiences they undergo as being their own.

This picture is in principle compatible with any account of the SEO.[94] Importantly, though, it is a consequence of my view that whatever grounds the SEO ultimately also grounds the SBO: that subjects experience a given body as

[92] See Chapter 1, section 1.1.
[93] In this sense, Explicit Reflexivity can take in versions of the main theses about the SBO defended by deflationists. On the one hand, the Boundedness Thesis, which claimed that the SBO consists at least partly of the fact that, when having bodily sensations, the body is felt as having certain boundaries. On the other hand, a nuanced version of the Property Thesis, on which the SBO consists *partly* of the fact that the properties involved in bodily sensations are experience-dependent.
[94] For a general landscape of views on the SEO, see section 1.4.4. in Chapter 1.

their own in somatosensation presupposes that they are aware of the relevant experiences as their own. Explicit Reflexivity also has it that the SBO is a phenomenally significant aspect of bodily experiences, and holds this via the claim that certain properties are marked as dependant on *my own* experience.

Under this light, it seems that Explicit Reflexivity would recommend a view according to which, for all phenomenally conscious experiences, there is something phenomenally significant that grounds the self-attribution thereof. In other words, Explicit Reflexivity seems to recommend an Experientialist Account on the SEO too. This is so, on the one hand, for the sake of simplicity. But on the other hand, because this theoretical option guarantees an underpinning of judgments of somatosensation when it comes to their warrant. In fact, the following would be a possible line of argumentation on the debate about the SEO: Experientialist Accounts on the SEO should be favoured because they get us closer to a simple, unified account of self-consciousness in somatosensation. Developing this line, however, remains a task for future research.

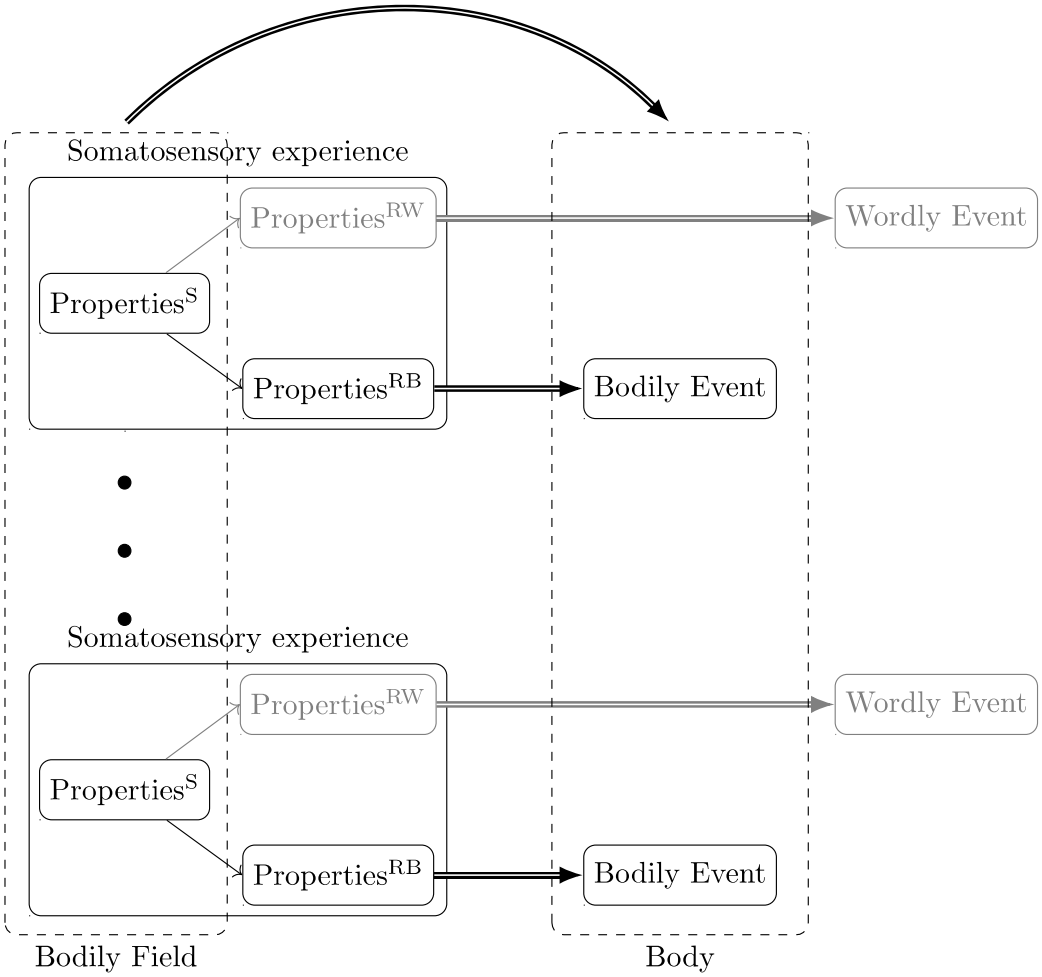

Figure 1[95]

[95] The simple arrows of Figure 1 stand for relations of grounding. Double arrows stand for relations of representation.

Chapter 4

Explicit Reflexivity Defended

In the present chapter I aim at further underpinning my proposal in two different ways. In the first half of the chapter (section 4.1) I will address three worries that, one might think, challenge the proposal, and argue that Explicit Reflexivity is able to overcome them. Addressing these challenges will also allow me to qualify some points of the view, thereby rounding it up. The first objection I will address, the objection from afterimages, concerns the relation that this special case of visual perception has with self-attribution. By tackling this worry, I consider whether Explicit Reflexivity generalises – or *over*generalises – to cases that do not involve bodily awareness, and clarify the role of my appeal to afterimages in Chapter 3. Secondly, I will discuss the notion of a non-localised sensation, sometimes put forward in the literature, and I will assess whether it poses a serious threat to the view. Finally, the third challenge will allow me to elaborate on how the notions of factivity and non-factivity are articulated in my proposal.

After dealing with these objections, I will bring back the three goals presented in Chapter 1. In that first chapter, I pointed out three defining features of the SBO: the involvement of the first-person in it, the seeming compellingness of this involvement, and its empirical relevance. These three features, I argued, dictate three desiderata that any theory on the SBO must meet, namely the Judgment Formation Goal, the Intuitive Goal, and the Empirical Goal. For a proposal to fully explain the SBO means for it to meet each of these goals: they constitute a yardstick to the validity of views on the phenomenon. Hence, underpinning Explicit Reflexivity necessarily involves showing that it meets the three goals. I will do so in three dedicated sections in the second half of this chapter (section 4.2).

4.1. Objections and Replies

4.1.1. The Objection from Afterimages

According to Explicit Reflexivity, the SBO consists of the fact that somatosensory experiences have (a constituent of) the bodily field as (part of) their content. The notion of bodily field is a specification, for somatosensation, of a more general notion of *sensory field* of a given experience type: the frame within which the objects represented in experiences of the type appear, and of which properties of the experience are predicated that are not properties the objects are represented as having. Dialectically, in Chapter 3 this general notion was extracted from reflection on the case of afterimages. The alleged phenomenology of afterimages was intended to be suggestive of the phenomenal features of bodily sensations that ground the awareness of the felt body as one's own expressed in judgments of somatosensation.

This prompts a potentially damaging objection to Explicit Reflexivity. On the account of afterimages exploited in the previous chapter, afterimages consist in properties of the visual field experienced as such. Thus, when experiencing an afterimage, subjects are aware of the relevant sensory field as such. Shall we say, then, that we experience the visual field in these cases *as something we have a sense of ownership for*? Put otherwise, does Explicit Reflexivity generalise to these cases of visual perception?

These questions express an objection if some assumptions are at stake. On the one hand, the assumption that, in putting forward my view on the SBO, I postulated a strict analogy between the phenomenology of afterimages and the phenomenology of bodily sensations as for the involvement of a sensory field in them. Let me call this assumption the *Strict Analogy* assumption. On the other hand, the assumption that there is no sense of ownership involved in the perception of afterimages. If this were the case, then Explicit Reflexivity *over*generalises – the objection goes. Let me call this second assumption the *No Ownership* assumption. There are two possible lines of reply to the challenge from afterimages, built around the commitment one takes to each of these two assumptions. I will now offer these two lines of reply in turn.

It is worth pointing out, for a start, that it is in principle not within the scope of this dissertation to take a stance on the debate about the contents of visual perception, nor on the phenomenon of afterimages in particular. Hence, in principle, I am not committed to taking a stance on whether there is a *strict*

analogy between the phenomenology of afterimages and the phenomenology of bodily sensations with respect to their involvement of a sensory field. As far as I see, if a contender asks me to take a commitment on this front, it will be on the grounds of dialectical considerations, such as the following: since I used a comparison between afterimages and somatosensory experiences as a central part of the motivation of my view on the latter, giving up now on one of the terms of the comparison seems argumentatively flawed.

Let me take this possible contender seriously, and suppose that she is right that Explicit Reflexivity can only get off the ground as a result of the effectiveness of an argument *by analogy*. If this were so, I should indeed be committed to the view that afterimages consist in a relation with a sensory field which, by definition, bears some experience-dependent properties; together with an awareness of the (properties of the) sensory field as such. Another way of expressing this view about the phenomenology of afterimages is the following: the phenomenology of afterimages is such that, when having them, we do not take them to be elements of the external, public reality.

This sort of view about afterimages is commonplace in the philosophy of perception. It is typically defended by philosophers who subsequently endorse "sensationalist" stances on visual perception: namely the thought that, given the nature of afterimages, we cannot characterise visual experience only in terms of a subject's experience as of an external, public reality, but we must also appeal to visual sensations – or to *sensational properties*, as I have been calling them.[96] On this assumption about the nature of afterimages, my contender's objection arises if one is *also* committed to there being no sense of ownership involved in the perception of afterimages. For if my view were sound, then it should be the case that we indeed experienced the visual field involved in afterimages *as something we have a sense of ownership for*.

A way out of this quandary is hence to drop the No Ownership assumption and accept that the experience of afterimages does involve something like a sense of ownership. Admittedly, I have not explicitly offered in this dissertation the general definition of "sense of ownership" that I am exploiting at this point. Drawing from the more specific [*SBO*] and [*SEO*], we can straightforwardly put together this definition: for one to have a *sense of ownership for X* is for one to be aware of an X one experiences as being one's

[96] Authors who subscribe specifications of this reasoning include Peacocke (1983, 1984, 2008), Block (1996),O'Shaughnessy (2000), Boghossian and Velleman (1989), and Kind (2008). In this section, I follow Phillips (2013) closely in the description of the role of afterimages in debates about the contents of visual perception.

own. Importantly, the awareness of X *as being one's own* involves the suitability of the self-attribution of X by tokening a first-person pronoun, and a typical compellingness of this self-attribution. Besides, if a sense of ownership for X can be said to exist, it captures facts about the involvement of the first-person in actual reports of experiences of X. Along these lines, for one to have a *sense of ownership for the visual field* is for one to be aware of the visual field as being one's own, with all the mentioned provisos.

On the face of it, that the experience of afterimages involves a sense of ownership in this way doesn't sound unreasonable at all, at least in the context of sensationalist views. As a matter of fact, in this context authors often use expressions that stress the privacy or "dependence on *oneself*" of the region revealed by afterimagery, for instance by stressing its *mental* nature – e.g. Block (1996) famously talks about *mental* latex, and Siegel (2006, 375) mentions *mental space* as "home to apparently mind-dependent entities". Relatedly, the peculiarity of these experiences has been sometimes articulated in terms of the sensitivity of afterimages to eye movement, that is, to the sensation of moving *one's own* eyes (Siegel, 2006, 371, 357; Siegel, 2010, Ch. 7). Closer to the idioms used in discussions on the sense of ownership, O'Shaughnessy (2000) describes a given sensation as of the blue sky within the sensationalist framework thus: "*something blue came into existence*: something blue, psychological, and *one's own*" (468, the latter italics are mine). And Peacocke (2008, 10), as we have already seen, illustratively writes that "[i]nsofar as we can make sense of a *subjective* space at all, it is precisely such space as is alleged to be involved in the visual field" (my emphasis). These descriptions of afterimagery plausibly count as evidence that the phenomenology of the visual field, thus understood, is taken to trigger, by definition as it were, reports in which one self-attributes it.

The second way out of the challenge posed by afterimages is to drop the Strict Analogy assumption. In other words, a second way out is to accept the possibility of there being *no strict analogy* between the phenomenology of afterimages and that of somatosensation as for the involvement of a sensory field. Assuming that Explicit Reflexivity holds, the suggestion here is to back out of the view that afterimages consist in the experience of the (properties of the) visual field as such. This resolves the challenge because, if the accurate account of the phenomenology of afterimages does not involve an appeal to a sensory field, then Explicit Reflexivity does not prescribe any commitment to the involvement of a sense of ownership in these experiences.

Again, this way out of the challenge does not seem unreasonable. Phillips (2013, 418) has made a good case for an alternative account of afterimages. He analyses the sensationalist claim that afterimages *appear* in ways incompatible with their being *apparent presentations* of public objects, in terms of six alleged phenomenal features: (i) afterimages do not appear to be material objects; (ii) they remain apparent even when one closes one's eyes; (iii) they do not appear to exhibit size constancy; (iv) they do not appear to exhibit kinetic independence; (v) they do not appear to be occludable; and (vi) they do not appear to afford multiple perspectives. On his view, afterimages do possess traits (i) to (iii), but these three features can be accommodated by an alternative, non-sensationalist approach to the phenomenon. His proposed alternative is to treat afterimages as illusory presentations of light phenomena such as rainbows, shadows, holograms, beams of light, or the vault of the sky. Besides, drawing on empirical considerations,[97] he argues that traits (iv) to (vi) are phenomenologically inaccurate, and hence that they do not constitute further reason to support the view that afterimages *appear* to be private objects. The general moral of Phillips' approach is that afterimagery falls short of a motivation for sensationalism about visual perception.[98]

As mentioned, it is not my aim to endorse one view of afterimages or another. However, these considerations are relevant to show that, if one is inclined to favour my contender's No Ownership assumption, then there are ways to not compromise Explicit Reflexivity. In fact, now that we can at least suppose that Explicit Reflexivity is correct, one could even pull this thread to construct an argument against the sensationalist account of afterimages: if afterimages involved a sensory field experienced as such, then they would also involve a sense of ownership, as somatosensation does.

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[97] As for (iv), Phillips appeals to the fact that large-scale afterimages do not appear to move with eye movement (Pelz and Hayhoe, 1995; Power, 1983), as well as to various forms of kinetic independence of small afterimages as a function of eye movement speed (Grüsser et al., 1987; Smith, 2002). When it comes to (v), he points out that afterimages can in fact appear to be occluded. This happens when they are located in so-called "impossible locations in visual space", namely those parts of the visual field that we generally cannot see without moving our head because they are occluded by our nose, brow, or cheeks (Hayhoe and Willians, 1984). Finally, as for (vi), Phillips points out a series of experimental results that show that afterimages are sensitive to body position and movement, and that their experienced modifications are reminiscent of visual-constancies (Gregory et al., 1959; Davies, 1973).

[98] And hence that it also falls short of an argument against "purism". As Phillips puts it, purism is the view that "visual experience can be exhaustively characterised in terms of a subject's apparent perspective on external, public reality" (417). Purists include Tye (1992), Dretske (1995), Campbell (2002b), or Brewer (2011).

It is important to note that, if one opts for this second way out of the challenge from afterimages, then the dialectical worry my contender started with arises anew: if afterimages turn out not to have a phenomenology that supports the notion of sensory field, what was the point of appealing to them to motivate Explicit Reflexivity? If we chose the second solution to the puzzle, wouldn't we be left without an argument for the view?[99]

I don't think so. As a matter of fact, the basic lines of the notion of bodily field could have been brought to light on the grounds of reflection about the phenomenology of touch alone, together with a generalisation to other bodily sensations (sections 3.2.2 and 3.2.3 in Chapter 3). Then, a more abstract notion of sensory field could have been defined on the grounds of the former. In other words, my arguments were limited to establishing that these notions apply to somatosensation, regardless of what may be the case for other sensory modalities. The explanatory project on the SBO, which concerns somatosensation specifically, justifies the appeal to these notions in independent ways, sufficiently explained in this dissertation.[100] Nevertheless, I do find the sensationalist picture of afterimages prima facie intuitive as a description of what it is like to undergo them. In this sense, I take the sensationalist picture to be dialectically useful because it easily evokes the relevant phenomenological subtleties – and I have used it to this effect.

Accepting that the dialectical use of the sensationalist view of afterimages in the previous chapter was *this* limited means accepting the following: the *actual phenomenology* of a given experience might not be what, on some intuitive introspective analyses, it *seems to be*. Experiences have an apparent phenomenology to which we can appeal for argumentative purposes, but the prima facie intuitive phenomenological description might well have to be revised.

This might be found controversial. This is not the place to go deeply into considerations about the nature and methods of phenomenological analysis. Still, this worry can be preliminarily approached, and at least provisionally dispelled, by appealing to what are in fact common practices in the philosophical literature concerned with descriptive analysis of experiences. It is worth pointing out that some of these practices actually assume that the phenomenology of a given experience might not always be obviously available,

[99] This objection was raised to me by Kathrin Glüer-Pagin in written correspondence.

[100] Namely the possibility of involving the SEO in an account of the SBO, as well as the plausibility of doing so given the parallelisms between the two and their co-occurrence in somatosensory experiences (see Chapter 1).

and that actual arguments besides brute introspection might be needed to make the correct descriptive claims about what-it-is-likeness.

A recent example of a specific method by which one brings to light phenomenal features of experiences is Siegel's (2010) *phenomenal contrast* method. This method is primarily conceived as a way of testing hypotheses about the *contents* of conscious experiences. Yet, it starts from the assumption that "contents of … experiences are non-arbitrarily related to their phenomenal character" (88). Suppose that we want to figure out what kind of content experience E has. The phenomenal contrast method suggests to consider E vis à vis another token experience E' with a different phenomenal character. We must then test whether a given hypothesis about the kind of content of E would explain its phenomenal contrast with E'. The phenomenal contrast method has it that, in order to determine the nature of the content of E, we need to engage in reflection about its phenomenal peculiarities with respect to other experiences. The method hence operates on the assumption that *comparing* the phenomenology of token conscious experience E with that of E' can be more informative about features of E that concern its phenomenology than reflection on E alone.

As a matter of fact, de Vignemont (2018) proposes to set the debate about the SBO in terms of an adaptation of the phenomenal contrast method. Her idea is that comparing ordinary somatosensory experiences with those elicited in experimental paradigms such as the Rubber Hand Illusion, as well as with experiences involved in putative disorders of ownership, might help determining what their content and phenomenology are. The methodological assumption here is, again, that reflection on other experiences, with which one can establish a comparison, helps shed light on the phenomenology of ordinary somatosensory experiences.

The strategy of polishing our prima facie phenomenological intuitions by comparing them to experiences elicited in experimental setups is actually the one we just saw Phillips (2013) follow: on his view, even if afterimages *seem* to exhibit kinetic independence, to be non-occludable, and to not afford multiple perspectives, these appearances are *phenomenologically* inaccurate. All these cases are examples of a commonplace assumption in philosophical methodology, namely that bringing out the actual phenomenology of experiences is not always a matter of brute introspection. Certain methods can be useful to illuminate it, and can help put forward arguments that favour some descriptions over others.

To sum up, the objection from afterimages arose from simultaneously holding that there must be a strict analogy between the phenomenology of afterimages and the phenomenology of bodily sensations as for the involvement of a sensory field in them – the Strict Analogy assumption; and that there is no sense of ownership involved in experiencing afterimages – namely the No Ownership assumption. I have argued that there are reasonable ways, both of holding Strict Analogy and rejecting No Ownership, and of ruling out Strict Analogy and hence remaining neutral as for No Ownership. Both strategies save Explicit Reflexivity from the objection.

4.1.2. On Non-Localised Sensations

It should be clear at this stage that the notion of bodily field is central to Explicit Reflexivity's account of the SBO: by cashing out the contents of somatosensory experiences ultimately in terms of Properties^{S}, which are properties of the bodily field, the view integrates the SEO into an explanation of the SBO. The involvement of the bodily field experienced as such in somatosensation is affirmed on the grounds of the dual structure of the content of bodily experiences, which convey both the body and non-bodily objects or space. This structure is implied by the phenomenal accessibility of the boundaries of the felt body, and this in turn results from the somatosensory experience as of *qualities* instantiated in a *location*. Taking the first schematic formulation of Explicit Reflexivity used in the previous chapter,

[*ER1*]. Experience$_{M}$ (P is instantiated in L),

what this means is that both P and L play a central role in the phenomenology that finally yields the SBO. The awareness of boundaries is gradable, and the fineness of grain with which one can describe non-bodily objects and space on the grounds of somatosensation is variable as a function thereof – the most detailed case being that of touch. Still, the SBO partly depends on the fact that the content of bodily experiences involves an indication of the spatial position of P – understood either non-literally, as a point defined in relation to various Properties^{S}; or literally as a location within the physical body, if we consider the representational aspect of bodily sensations.

This being the case, a legitimate worry emerges if we consider the possibility of there being sensations that are not localised. The commitment of

Explicit Reflexivity should be that there is no SBO involved in these sensations. In what follows I will suggest various ways in which we could plausibly interpret the idea of *non-localised sensations*, and evaluate to what extent each of them compromises the view.

In discussing the local sign theory of bodily sensations,[101] Frédérique de Vignemont (2018, 70) points out that, if some kind of spatial knowledge is a condition of possibility for being able to localise bodily sensations, then there might be a stage of development in which infants have not acquired this knowledge yet, and hence have *free-floating* sensations.[102] We are thereby invited to consider the possibility of there being sensations that convey certain qualities to the subject, where these qualities are felt to be instantiated nowhere in particular. Regardless of whether there is indeed a stage of development in which human infants do have sensations of this sort, it is worth evaluating whether this very possibility would involve, on the face of it, a problem for Explicit Reflexivity. Put in terms of Explicit Reflexivity, for a subject to have a sensation *as of a property instantiated nowhere in particular* is for her to have a sensation (i) the content of which cannot possibly be specified relative to the content of other bodily experiences, and (ii) which does not represent any physical body or body part. As mentioned, the prediction of the view would be that, for all bodily sensations with these features that a subject might have, these sensations will not involve a SBO.

Not only this is not problematic for Explicit Reflexivity, but rather the mentioned prediction just seems to follow from a proper understanding of what it would actually mean to have a non-localised sensation under this reading. An alternative way of expressing what one would be feeling in this case is by saying that there would be *nothing* the relevant property would be attributed to in the experience, and hence *nothing* the property would be represented as a property of. Correspondingly, in subsequent judgments aimed at reporting the experience, the felt property would not be localised in, or predicated from, anything in particular. In this context, it is a matter of

[101] Namely the theory, defended by Wundt (1897) or James (1890), that there is no spatiality intrinsic to bodily sensations, but rather that we interpret some qualitative features of them, such as the texture of the body part involved, as *signs* of the localisation of the relevant stimuli. This sort of view has been extensively objected to (e.g. Vesey, 1961; Margolis, 1966; Holly, 1986). Here I will not engage with the details of this theory – that is, I will not engage with the idea that we end up localising sensations in judgment by means of a *signalling* process.

[102] Although, as she acknowledges following Bremner (2017), infants can localise their sensations very early on, e.g. newborns have a capacity to automatically grasp unseen objects that touch their hands, and 6.5 months old infants orient their behaviour towards touched hands by looking at them.

definition that one would not be aware *of the body felt in somatosensation* as being one's own: the experience we are talking about is simply not an experience as of a *body* instantiating certain properties, and hence it is not an experience as of *one's own body* instantiating certain properties. Therefore, an accurate report of the experience is thus one in which *no thing* is self-attributed by the subject. Free-floating sensations would not involve a SBO because, strictly speaking, they do not convey neither a body nor a bodily field. In this sense, the prediction of Explicit Reflexivity fits squarely with the more general idea that perceiving a property as spatially localised is a condition for the perception of a determinate object as the bearer of the property.

However, there are subtler, more plausible ways of understanding what is at stake in talk about non-localised bodily experiences. For a start, let us consider Armstrong's (1962, 1968) famous distinction between bodily sensations and what he called *bodily feelings*. As he puts it, "bodily sensations are, but bodily feelings are not, *located* in particular parts of the body" (1968, 308). On his view, clear-cut cases of bodily feelings are the feeling of tiredness or sleepiness, the feeling of freshness, the feeling of faintness, and the feeling of sickness.[103] Bodily feelings might pose a problem to Explicit Reflexivity in the following sense: although described as non-localised, these sort of experiences seem to "concern" the body in ways that might make one reluctant to claim that there is no SBO involved in undergoing them.

A way to evaluate the threat that bodily feelings pose to Explicit Reflexivity is by inquiring into what is meant *exactly* with the claim that they are not localised. On the face of it, it is not completely obvious that feelings such as tiredness or sickness (i) cannot possibly be described in terms of their spatial relations to bodily experiences different from them, and (ii) do not convey any physical body or body part. To the extent that we can offer plausible alternatives to this literal reading of the thesis that bodily feelings are not felt as localised, the threat that the phenomenon poses to Explicit Reflexivity is minimised.

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[103] Somewhat ambiguously, Armstrong (1968) also mentions hunger as a bodily feeling (307), as well as thirst (320), to immediately say that "it may be best to exclude [them] from the class of what we have arbitrarily called 'bodily feelings'" (ibid.). He then sketches an account of hunger and thirst as *desires*, to eat and to drink respectively. Besides, giddiness and dizziness are mentioned as "intermediate cases" between bodily sensations and bodily feelings, since on Armstrong's view it is unclear whether they are felt as localised (1962, 43). In any case, the next paragraphs are aimed at discussing what it means for bodily feelings to not be localised. My points apply in principle to any bodily experience one might consider to be a bodily feeling, including hunger, thirst, giddiness, and dizziness.

Here is an alternative, more nuanced reading of this thesis: a bodily feeling B is a determinable each determinate of which is a cluster of experiences; and every determinate of B includes one or more bodily sensations. I use "cluster" instead of "set" to highlight the open-ended nature of each of the determinates of B, and thus the fact that we are typically unable to enumerate exhaustively the sensations in any of these clusters.

Let me illustrate this with an example. Consider the feeling of tiredness – that is, the property of being Tired. On this view, being Tired is a determinable property, of which there exist various determinates. For instance, one might feel heaviness on one's limbs, a mild pain in one's feet, and a headache. Or, alternatively, one might feel pain in one's limbs, stiffness in the joints, and a throbbing sensation in the temples. Or one might feel heaviness on one's limbs and a headache, while being in a very bad mood. Each of the lists just mentioned plausibly describes a cluster of experiences that determines the determinable being Tired. It might not be possible to decide whether other experiences should be mentioned as members of these clusters – as it might also be impossible to enumerate all the clusters of experiences that determine being Tired. In any case, all these clusters include a sufficient set of *localised* bodily sensations. For instance, they include the sensation as of *the limbs* being heavy, the sensation as of *the joints* being stiff, the sensation as of *the head* being painful, the sensation as of a throbbing *in the temples*, or the sensation as of an ache *in the head*. The property of being Tired cannot be instantiated unless one of the relevant clusters of experiences is, namely unless one of its determinates occur.

On this characterisation of bodily feelings, the uneasiness in ascribing them a location is explained: strictly speaking, it is not possible to zero in on a location for the *bodily feeling* itself. Indeed, each of the bodily sensations included in the determinates of the feeling will (i) allow for a description of the content of the sensation in terms of its relations to other bodily sensations, which might or might not belong to the determinate, and (ii) convey a physical body or body part. But precisely on these grounds we might be unable to decide on whether tiredness is localised *simultaneously* in the limbs, the feet, and the head; or rather it is *neither* in the limbs, the feet, nor the head; or some other combination along these lines. Crucially, also on these grounds it is possible to claim that, when having a bodily feeling, one is having a sufficient number of bodily sensations, each of which with the structure

Experience_{M} (P is instantiated in L).

It is therefore possible to claim that, when having a bodily feeling, one has a SBO for each of the parts of the body in which each of the sensations determining the feeling are localised.

This way of cashing out bodily feelings seems independently plausible. It is worth adding, though, that it also doesn't seem to depart much from what Armstrong himself had in mind when tracing the distinction between bodily feelings and bodily sensations. Right after presenting the distinction, Armstrong admits that "bodily feelings may *involve* having bodily sensations … which *do* have a bodily location" (1962, 43). Besides, in the context of characterising bodily feelings as perceptions of bodily states, he endorses the view according to which "these perceptions involve an inference from bodily *sensations*" (1968, 321)[104] – a framework within which the non-localisation of bodily feelings "can be explained as the impossibility of giving a definite location to a whole pattern of sensations spread throughout the body" (ibid.). Armstrong also highlights the possibility of undergoing sensations one is only marginally aware of, which on his view explains the difficulty of giving a precise account of the bodily sensations allegedly involved in each bodily feeling. Rephrased in the terms I have used above, this possibility arguably explains that we are typically unable to exhaustively mention the properties in any of the "patterns" or clusters that determine our bodily feelings, and hence that, when talking about these feelings, we tend to use determinable concepts.

Yet another way of understanding what might be at stake in discussions about non-localised bodily experiences is constituted by what de Vignemont (2018) calls *spatially diffuse* sensations. The example she uses to illustrate this type of sensation is retrieved from Head and Holmes (1911, 139), who mention the report of a patient who claims "I feel you touch me, but I can't tell where it is". The patient thereby verbally manifests an incapacity to pin down a sensation which would normally be easily localised, namely a tactile sensation. It is important to note, however, that the patient further qualifies his claim by saying that "[t]he touch oozes all through my hand". Judging on the full report, it therefore seems prudent to read the patient's statement that she

[104] With this quote I want to stress Armstrong's contention that bodily feelings involve bodily sensations. I want to remain neutral, however, on whether inferences are in any way involved in having a bodily feeling.

can't tell where the sensation is metaphorically, as referring to the fact that the sensation diffuses *into a large area of the body*.

Another case similar to Head and Holmes' in the relevant respects is presented by Ploner, Freund, and Schnitzler (1999). The case is that of a 57-year-old male who suffered a stroke that affected the hand region of his right S1 and S2 cortex. He was exposed to noxious cutaneous stimulation to his left hand, where he was in principle unable to feel pain. Yet he "spontaneously described a 'clearly unpleasant' intensity dependent feeling emerging from an *ill-localised* and extended area 'somewhere between fingertips and shoulder', that he wanted to avoid" (my emphasis). Ploner, Freund, and Schnitzler point out the patient's complete inability "to further describe quality, location and intensity of the perceived stimulus" (213).[105] This case differs from Head and Holmes' as for the fineness of grain with which the patient reportedly experiences the quality of his sensation. Yet, it is similar – and relevantly so for our purposes – in the sense that the patient's reported difficulty to localise his sensation comes with a reference to a relatively large area within which it is approximately felt to be.

These patients' uncertainty about the exact location of their sensation could maybe be read as indicating that no location is involved in their experience. However, to my mind this reading would involve a controversial leap: taking the sensation to be *aspatial* on the grounds of reports that reflect, at most, their *roughly-grained localisation in large parts of the body* (de Vignemont, 2018, 70). As a matter of fact, both patients explicitly refer to specific body parts, such as their hand or their full arm, even if they do so by means of expressions that convey the encompassing character of their spatial experience: in one case, the sensation "oozes" all through the hand; in the other, the arm is indirectly referred to as "somewhere between fingertips and shoulder". Experiences of this sort still fall under the schema

Experience_{M} (P is instantiated in L),

[105] In the paper, entitled "Pain affect without pain sensation in a patient with a postcentral lesion", the authors make the case for a dissociation between the sensory-discriminative and the motivational-affective components of pain. The patient, whose experience lacks the former, anyway reports to feel the latter, the approximate location of which is described in the terms quoted. The notion of sensation at stake in this dissertation picks out generally the phenomenal character associated to bodily experiences. It is thus encompassing enough to include both of the aspects mentioned. Therefore, the case is relevant for the considerations about the location of bodily sensations in this section.

with the only proviso that L does not stand for a punctual location within the bodily field and the body, but rather for an extended area thereof.

Nothing in Explicit Reflexivity prevents an experience of this kind to be considered as properly involving a spatial component: as they are described, these experiences plausibly (i) have a content that can be specified relative to the content of other bodily sensations; and (ii) represent bodily parts. The patients' straightforward report of the sensation as felt in specific body parts suggests that roughly localised sensations can make the boundaries of the region where they are localised sufficiently salient. Hence, the description of the experience is still compatible with the patients' having a SBO for their felt limbs: as a matter of fact, Head and Holmes' patient refers to the hand as "*my* hand".

Finally, the idea of manifesting an incapacity to pin down the location of a sensation brings in one last phenomenon worth mentioning, which I take to be relatively ordinary and familiar: the phenomenon by which one feels a punctual itch, sometimes even an acute one, but is unable to hit the target when trying to scratch it. On the grounds of this failure, one might be tempted to conclude that experiences of this sort convey a non-localised itch.

On the face of it, however, there is at least one plausible way of cashing out this sort of case without compromising Explicit Reflexivity either – that is, there is one plausible way of cashing out the case which allows for a description of this itchiness in terms of the sensation as of an itch *at a given location*. The proposal takes into account the following: a given experience E might have the structure

Experience_{M} (there is an L such that P is instantiated in L),

while it is *not true* that

there is an L such that Experience_{M}(P is instantiated in L).

On this view, itches one can't scratch do have a spatial content, which might be associated with general features of L such as its size or the region of the body where it occurs. Besides, we typically access this content, evidence of which is the fact that we act on the experience by attempting to get rid of it via a bodily directed action coherent with the relevant general features, namely scratching. For instance, attempts at scratching the itch might concentrate on a

relatively small area of the body. Yet, the proposal has it, the *actual* location of the itch is not (re)presented in the experience: we just feel that *there is* such a location. Hence our difficulties to actually hit the right spot when scratching, and our tendency to *mislocate* the sensation (de Vignemont, 2018, 70).

What I am suggesting here is to think of this case along the lines of Cohen, Dennet, and Kanwisher's (2016) approach to the problem of the richness of visual experience. Subjects generally naïvely believe that their perceptual experience is rich, and that this richness spans their entire field of vision. Yet, objective measurements on change blindness and inattentional blindness show otherwise. As the authors put it, subjects typically overestimate the level of detail at which they actually perceive the environment.

Cohen, Dennet, and Kanwisher's proposed explanation of this naïve impression is that the content of visual perception be cashed out as including, not the details of multiple unattended items, but *an ensemble*: that is, a summary statistics of different types of information about the environment. Leaving aside their specific explanatory proposal, the gist of it is that perceptual experiences can convey certain information about objects in ways that allow for their exploitation in action, despite the fact that the details that would typically accompany this information simply do not figure in their content. For instance, one can tell whether the members of an approaching crowd walk *in a threatening manner*, on the grounds of visual experiences as of the crowd that do not represent the precise facial expressions of the members of the crowd (Cohen et al., 2016, 327). In the same spirit, one might be able to tell whether the itch is localised *in one's upper left limb* – instead of, say, in one's upper right limb –, but yet fail at finding its precise location *because* the experience does not convey it. Importantly, the latter does not imply that the itch is not represented as localised in an area with certain general features. Nothing in Explicit Reflexivity dictates a level of detail at which one must represent space as a yardstick to measure whether experiences themselves involve spatiality. Hence, itches one can't scratch can well involve a SBO for the bodily region actually represented as bearing them.

In short, in this section I have discussed several specifications of the general notion of non-localised sensations. For each of them, I have proposed a way for Explicit Reflexivity to plausibly make room for it. Hence, none of them constitutes an insurmountable threat to the view.

4.1.3. On (Non) Factivity[106]

In the first chapter of this dissertation, I defined the SBO thus:

> [*SBO*]: For one to have a sense of bodily ownership is for one to be aware of the body one feels in bodily experience as being one's own.

I insisted that the awareness involved in this definition is non-factive. With this proviso, [*SBO*] was inclusive enough so as to cover cases in which a subject S judges a body B, which she feels somatosensorily, to be her own when it is not, as well as phantom limb cases in which the relevant part of B does not exist. This notion of awareness is thus non-factive in the sense that *it need not track facts* about the actual existence or condition of the relevant body (part), nor about actual ownership thereof.

Besides, the specification of [*SBO*] that I defended in Chapter 3 has it that for a subject to have a SBO is for her to *be aware* of:

A. the experience-dependency of the properties involved in the content of somatosensory experiences;
B. the relevant experiences (namely somatosensory experiences) as being her own.

A worry might arise at this point concerning the consistency of Explicit Reflexivity qua specification of [*SBO*], in the following sense: as part of the specification of a sort of awareness which is *non-factive* by stipulation, I am actually appealing to the capacity of subjects to *track actual facts* about their experiences.

Preliminarily, note that an appeal to a capacity to track actual facts is indeed involved in the two clauses of Explicit Reflexivity. Take clause A first. Clause A concerns the subject's awareness of the experience-dependency of the properties involved in the content of somatosensory experiences. I have proposed that the properties involved in the content of somatosensation are Properties^{S}. Hence, according to Explicit Reflexivity, these properties are in fact experience-dependent. Thus, the subject's awareness of them tracks the actual nature of the properties. When it comes to clause B, it concerns

[106] This worry was pointed out to me by Sven Rosenkranz when I presented part of this material at the Logos Seminar in November 2017.

awareness of a given experience as being one's own. Consider a phenomenally conscious experience E and a subject S, and suppose that S undergoes E: it is plausible to think that, independently of whether S judges E to be her own, E is S's experience by definition, just because it is phenomenally conscious for S. Otherwise put, it is plausible that what makes a given experience the experience of a given subject is the fact that she undergoes it. If this is the case, then S's awareness that E is her own will necessarily track facts about ownership of experiences.[107]

Even if both A and B involve actual facts one is aware of, the worry that I am now considering emerges specifically with respect to clause A. The inquiry into the SBO has to do with how to characterise bodily experiences so as to explain that the first-person typically figures *in the content position* in judgments of somatosensation. The awareness involved in B concerns facts about *the mental states* generally, and not specifically about their contents. This is of course not completely unproblematic per se: for instance, one might worry about how properties of attitudes ultimately can explain aspects of their contents.[108] Yet, the challenge now emerges specifically with respect to A, because the awareness we are talking about in A concerns facts about *the contents* of the relevant experiences: given A, Explicit Reflexivity says that the typically non-factive *content* of judgments of somatosensation is based on experiences which track facts, since they convey their own properties as they actually are. My objector spots a tension here. How can this exactly happen, according to Explicit Reflexivity?

I have offered in the previous chapter all the tools needed for an answer to this question that involves no tension between [*SBO*] and my own specification thereof. The difference spotted by my objector between the general, non-factive definition and my particular, factive specification thereof actually corresponds to the distinction between Properties^{RB} and Properties^{S}. The worry can be dispelled by pointing to this distinction.

As mentioned, that the awareness of the felt body as one's own is non-factive means that it *need not* track the facts about existence and ownership of body parts. In other words, it means that it is fallible. This includes the possibility that the body parts one has sensations as of exist, and that they are

[107] This was already pointed out in section 1.4.2 of Chapter 1, in the context of discussing the differences between [*SBO*] and [*SEO*]. It only becomes potentially problematic now, since I have included the SEO in a definition of the SBO.

[108] I will come back to this point below, when discussing the Judgment Formation Goal (section 4.2.1).

one's own: [*SBO*] is formulated so that it applies, for instance, to phantom limb experiences, but it is of course supposed to apply as well to cases in which one veridically feels a body (part) of one's own. Hence, when postulating non-factivity in [*SBO*], a representational reading of "awareness of the felt body as one's own" is at stake, both in the sense of an existent body (part) actually being in a certain condition, and in the sense of it being one's own. Otherwise stated, when *formulating* [*SBO*] I am offering a definition that comprises the representational form that the SBO takes, at least, when one judges. This means that the definition takes Properties^{RB} into account, namely the sort of properties in virtue of which the content of bodily experiences stands for bodily properties.

Now, clause A of Explicit Reflexivity belongs to an explanation of how it comes about that Properties^{RB} are taken to stand for properties of *one's own body*, and not just for properties of any body whatsoever. According to Explicit Reflexivity, this occurs in virtue of the fact that Properties^{RB} are grounded on *Properties^{S} experienced as experience-dependent*. But Properties^{S} are experience-dependent. Hence, insofar as one is aware of them as such,[109] they will enter into the content of somatosensory experiences as they in fact are. Only if this is the case, the view has it, will one have a SBO. Put otherwise, only if this is the case will somatosensation convey a body as one's own, in a way fallible with respect to the existence and condition of the body, as well as with respect to ownership. This is how the awareness of certain facts exactly explains the non-factive awareness involved in the SBO according to Explicit Reflexivity.

4.2. Meeting the Goals

4.2.1. The Judgment Formation Goal

The first goal for theories on the SBO was the following:

> [*Judgment Formation Goal*]: any account of the SBO must explain the fact that we self-attribute the felt body for all judgments of somatosensation in which we do so.

[109] Explicit Reflexivity does not preclude the possibility that this is not the case, namely that one does not experience Properties^{S} *as such*. As I will argue in section 4.2.3.2 below, this is plausibly the case in somatoparaphrenia.

[*Judgment Formation Goal*] succinctly expresses that, when proposing accounts on the SBO, we are after an explanation of the first-personal character of judgments aimed at reporting bodily sensations, namely of the fact that they involve a first-person pronoun qualifying the felt body. I argued that the several views assessed in Chapter 2 had flaws that were variants of a general problem: how to make it the case that a given object, conveyed to a subject by a conscious mental state of hers, is actually conveyed to her *in the experience* as a *designated* object – where "designated" has a peculiarly strong sense. The body is not a designated object whatsoever: it is not enough that the parameters by which it is represented are distinctive of it. The putative first-person phenomenology of bodily experiences should be one capturing a specific reflexive pattern, I advanced: the *content* of token somatosensory experiences should *contain a reference to the subject of the experience qua subject of the experience*. The body is designated in somatosensation in the sense that it concerns the subject herself.[110]

I have indicated that, in this context, Deflationist Accounts can at most posit a posteriori identities between the SBO and the feature selected to specify it. These identities are unsatisfactory, because they leave an explanatory gap between the contents of bodily experiences, and the putatively first-personal phenomenology of these experiences. It is now time to see how Explicit Reflexivity bridges the gap. The last formulation of the view's characterisation of the typical contents of somatosensation proposed in Chapter 3 will be useful for these purposes:

> [*TV3*]. $\text{Experience}_{\text{M}}$ (P is instantiated in L, and P is constitutively dependent of this particular experience)

On this formulation it is clear that, on Explicit Reflexivity, somatosensory experiences are typically token-reflexive. Their content ultimately involves an object: a relatively well delimited body, distinguishable from other objects, picked out via the perception of its properties. Yet, they convey these properties by means of properties suitably described as "constitutively dependent of this particular experience". This description, which specifies the

[110] Going a bit further: the body might actually *be (part of) the subject herself*, so that the "ownership" claimed over it is not like the ownership claimed over any other physical object. The Intuitive Goal, approached in the immediately following section, intends to capture this peculiarity, as much as it is possible to do so without getting into metaphysical considerations.

content of the sensation, includes the indexical expression "this particular experience". Admittedly, there is nothing first-personal in this expression. By stipulation, though, the indexical picks out the very experience the content of which it specifies. This experience, in turn, is marked *as mine*, in the sense that its subject typically is aware of it as her own. The indexical picks out the subject via picking out *her own* experiences.

Therefore, one way of formulating the reflexivity resulting from this view is this: for each normal somatosensory experience of a subject, it conveys to the subject *a property localised in L, dependent on my own experience* – where "L" is to be understood non-literally in the first place, as a point in the bodily field. The experience of ownership for the bodily field latches onto the relevant body via the Properties^{RB} grounded on the former.

One needs to be careful when interpreting the formulation just mentioned, though. This formulation might suggest that a primitive mineness component belongs to the content of the sensation, inflating it so that it yields first-personal judgments as a mere correspondence thereof. The proposal of Explicit Reflexivity is subtler. The spatial and qualitative structure of the content of sensations is such that it brings in a reference to the subject of the experience qua subject of the experience: for a given body to be *mine* just means for it to belong to the one and only conscious subject to which I would refer by means of the first-person pronoun "I". A property of the attitudes thereby brings to bear on their contents. In sum, bodily properties are typically experienced in bodily sensations as constitutively dependent of experiences I would report by using a first-person indexical in the subject position. When this is the case, I use the first-person pronoun to qualify the felt body in judgments of somatosensation. This is how Explicit Reflexivity meets the Judgment Formation Goal.

To conclude this section, let me emphasise a central part of the proposal and a consequence thereof. Consider a somatosensory experience E, and a subject S for whom E is phenomenally conscious. For the Judgment Formation Goal to be met, it is essential that the indexical included in the specification of the content of E picks out an experience *that S takes to be her own*. Otherwise put, it is essential that the indexical picks out *an experience S has a SEO for*. For the sake of accounting for the SBO, I have stipulated that this is so: the indexical included in the specification of the content of E will typically pick out E itself, and S will typically have a SEO for E.

Relevantly, if the indexical picked out an experience that S did *not* take to be her own, then the use of a first-person pronoun in the content position in reports of E would be unmotivated. This might raise a worry: how is it the case that the indexical involved in the content of somatosensory experiences picks out the *right* experience, namely an experience one has a SEO for? Otherwise put, one might worry about the possibility that scenarios like the following obtain. Firstly, consider another subject, R, and a somatosensory experience F phenomenally conscious for R. Suppose also that there are ways for S to get to know that R is undergoing F, although F is not phenomenally conscious for S. Finally, suppose that S's experience E has the following structure:

> E_M (P is instantiated in L, and P is constitutively dependent of *that* particular experience),

where "that particular experience" refers to F. In other words, suppose that S's experience conveys a property as dependent on the experience of someone else, in particular R's. In this scenario, since S does not have a SEO for F, she will not report E by tokening the first person pronoun in the content position.

Secondly, consider yet another somatosensory experience G of subject S. Suppose now that G has the following structure:

> G (P is instantiated in L, and P is constitutively dependent of this particular experience),

where "this particular experience" refers to G.[111] The indexical in the content of G picks out G itself, but yet S does not have a SEO for G, as the lack of the subscript "$_M$" conveys.

In none of these scenarios would S have a SBO. The first scenario illustrates that, if the properties of the body we perceive somatosensorily were presented to us as dependent on *someone else's* experience, we would not experience the body as our own. In the second scenario, S's report of G would not involve a first-person pronoun qualifying the perceived body because of the lack of a SEO for G – although G might otherwise count as S's experience.

[111] This example assumes that we can take experiences to be somatosensory in kind for reasons independent of the structure of their content. I will elaborate on this point below, when discussing the case of somatoparaphrenia (section 4.2.3.2).

It is important to note for one thing that it is not required from Explicit Reflexivity to give a full answer to this worry. Explicit Reflexivity aims at bridging the mentioned explanatory gap, and *stipulating* how somatosensory experiences are in normal conditions is enough to this effect. The view thereby excludes these alternative scenarios from the set of normal conditions, just as somatosensory experiences that do not involve a SBO are unusual. Still, a preliminary answer to the worry is this: the content of somatosensory experiences typically refers to our own experiences, rather than to those of other subjects, because the former, but not the latter, are *phenomenally conscious* for us. It picks out experiences that are "present" to us in the sense of there being something it is like for us to be in them.[112] Of course, this still leaves room for the second scenario described, if it is possible at all to *not* have a SEO for the experiences one is phenomenally conscious of. Nothing in Explicit Reflexivity precludes this possibility: as will be discussed immediately (section 4.2.3.1), reports of somatosensation from depersonalised patients might well reveal experiences with this structure.

4.2.2. The Intuitive Goal

The second goal set for theories on the SBO said the following:

> [*Intuitive Goal*]: any account of the SBO must specify the SBO in terms that explain the seemingly necessary link that bodily experiences, but not exteroceptive experiences, have with the awareness of the experienced body as one's own.

[*Intuitive Goal*] expresses a central feature of the relation between bodily sensations and judgments of somatosensation, namely the fact that there seems to be a necessary link between the occurrence of the former and the involvement of the first-person in the content position in the latter. The basic dictate for theories on the SBO contained in [*Intuitive Goal*] is that, whatever it is about bodily experiences that, according to the relevant theory, spells out the awareness that they are about *me*, it needs to be sufficiently distinctive of bodily experiences vis à vis external perception. The selected feature, specific of

[112] Mutatis mutandis, a similar problem and a similar reply are mentioned in Guillot (2016, 141). Her discussion concerns how the token-reflexive rule that fixes the reference of "I" – namely "the thinker of *this* very thought" – latches onto the correct thought – that is, the present thought.

bodily sensations, will then help make sense of the fact that the mentioned link *seems* necessary.

Let me briefly recall the motivation for this goal before clarifying how Explicit Reflexivity deals with it. The relevance of an appeal to external perception here came from reflection on the fact that bodily sensations are not the only type of sensory state by means of which we ordinarily perceive bodies – in particular our own bodies. They are also not the only type of sensory state that we might report by self-attributing the body perceived. In particular, we also perceive bodies by means of external perception: we see them, for instance; and often judge them to be our own on these grounds. This is what happens when we see ourselves in a mirror and recognise ourselves as such.

This being so, there is anyway a contrast between external perception and somatosensation as for the type of judgment we ordinarily conceive of them as possibly yielding. It does not seem specially problematic to think of the occurrence of an exteroceptive experience in which a body is represented and yet not taken by the perceiver to be her own: this is the case, for example, when we perceive the bodies of other people. In contrast, the situation is notably different for bodily sensations. In general, our intuitions point in the direction of taking the occurrence of bodily sensations to necessarily come with the experiencing subject's awareness that the body she feels is her own. The existence of cases such as somatoparaphrenia forces a limited formulation of this intuition – that is, it forces a formulation thereof *only* as an intuition: the link between the occurrence of bodily experiences and the involvement of the first-person in their content just *seems* necessary. This is the formulation captured in [*Intuitive Goal*].

Yet, despite the narrow scope of this formulation, I have argued that the intuition is by itself significant. The existence of these pathological cases does not overrule the fact that philosophical discussions on self-consciousness are specifically concerned with bodily sensations in a substantive way, which goes beyond the concern about the self-attribution of phenomenally conscious mental states in general. This arguably mirrors an ordinary assumption that bodily experiences are *about ourselves* in a specially compelling way. I have also speculatively suggested that it might be part of our folk concept of a bodily sensation, both that it concerns our own body, and that it involves a SBO, thus being difficult to conceive that these two features come apart. In turn, this folk concept might be based on how things are in fact: in normal conditions, it is

both the case that bodily experiences are indeed about our own bodies, and that we take their contents to be our own bodies.

According to Explicit Reflexivity, the trait of bodily experiences that explains that we compellingly form first-personal judgments of somatosensation is the structure of their content, which involves a bodily field, and in particular the phenomenology associated to experiencing it as such. Following the speculative suggestion, then, we form our folk concept of bodily sensation as the sort of state that involves a SBO because, in normal conditions, bodily sensations have the relevant content and phenomenology.

Crucially, the Intuitive Goal states the need for the explanatory feature of bodily sensations to be *distinctive* of them. In particular, the relevant feature should not figure in exteroceptive experiences. The reasoning that backs up this claim is this: if the relevant feature figured in exteroceptive experiences, then they would ordinarily involve a sense of ownership for the objects perceived[113] – and, plausibly, our folk concept of an external perception would be such that it would be difficult for us to conceive of an exteroceptive state that were not about what we take to be our own bodies.

Hence, here is a way in which Explicit Reflexivity must be accurate, expressed in [*Intuitive Goal*]: it must be plausible to say that exteroceptive experiences do not have, ordinarily, the phenomenology that the view posits for bodily experiences as an explanation for the SBO.

In particular, *visual experiences* must be a case in point: it must be plausible to say that they do not ordinarily have the relevant sort of phenomenology. The naïve realism typically attributed to vision, extensively discussed in the philosophical literature on perception, is the key piece to an illustration of this contrast with somatosensation. The following passage by Boghossian and Velleman (1989) is specially suitable for these illustrative purposes, since they bring forth the naïve realism of visual experience by contrasting it with a putative *sensory field* involved in bodily sensation:

> When one pricks one's finger on a pin, pain appears in one's tactual 'field', but it is not perceived as a quality of the pin. ... [T]he difference between pain experience and colour experience ... is precisely that pain is never felt as a quality of its apparent cause, whereas colour usually is: the pain caused by the pin is felt

[113] Note that, on the sensationalist view, afterimages would precisely be exteroceptive experiences with the relevant feature.

as being in the finger, whereas the pin's silvery colour is seen as being in the pin. (95)

In this passage, Boghossian and Velleman discuss the contrast between a visual experience of a coloured object and a particular type of pain experience, specifically one in which touch is involved: the experience of feeling the pressure of a sharp object against one's skin.[114] Their example is analysable as involving, at least, the following properties: on the one hand, as for the visual perception of a silvery pin, there is the qualitative property associated to the visual perception of the colour property, which we can call *Silver*^{V}.[115] This property is different from the objective Silver-colour property of the pin itself, however the latter needs to be cashed out. On the other hand, as for the somatosensory experience in the example, there is a quality associated to it, Damage^{S}, to be distinguished from the correlated objective property that the finger itself might have, namely Damage. Both the cause of the experience of colour and the cause of the experience of pain – as a matter of fact, the same, namely the pin – appear to the subject, either visually or tactually, in the relevant experiences.

The quoted passage stresses that, even if one cashes out visual experiences and somatosensory experiences as equally involving experience-dependent properties as part of their content,[116] a difference persists between the two. In ordinary language, when we report visual experiences of silver colour, we mean *of objects* that they are silver. Arguably, strictly speaking, when we see something silver and we report our experience accordingly, we do not intend to refer to Silver^{V} qua experience-dependent property, but to some property that allegedly objects themselves are seen as having. Maybe independently, we know that in general the object in the world that is seen as silver is partly causally responsible for the instantiation of Silver^{V}. It is in this sense that Boghossian and Velleman's full point applies: if we take colour reports at face value, we are compelled to say that colour is generally perceived as a property of its cause.

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[114] Touch is involved in this experience of pain in the sense that it involves an object in contact with and pressing against one's skin.

[115] Just to recall, the experience-dependent nature of the qualitative aspect of colour properties was addressed in Chapter 2 as part of an argument to the effect that the very same feature, which properties involved in somatosensation have, is not sufficient to account for the SBO (section 2.3.2).

[116] As a matter of fact, this is how Boghossian and Velleman characterise visual experiences: as involving properties of this sort that are then projected onto perceived objects.

In contrast, in the specific somatosensory experience under discussion there is a felt object that is arguably causally involved in the occurrence of Damage^{S}, namely the pin that presses against the finger's skin. However, Damage^{S} is not attributed to it. In ordinary language, we *do not* seem to aim at referring to objective Damage when reporting bodily experiences of pain. As I have discussed in the previous chapter (section 3.3.2), when we say "I feel pain" we seem to be talking about the very sensation we are undergoing. One of my central statements has been that the claim that Properties^{S} are felt *as being in the body* and the claim that they are experienced *as experience-dependent* go hand in hand in normal somatosensory experiences. In the quoted passage, Boghossian and Velleman seem to hint in this direction when they say that pain is felt "as being in the finger", but also that it "appears in one's *tactual 'field'*" (my emphasis).

In short, the comparison is useful to highlight that, by taking the silver colour to be a property of the pin, we treat it as a property the pin has by itself, leaning toward the denial of its experience-dependency.[117] In contrast, in cases of bodily sensation in which the relevant elements are equal – Damage^{S}, as Silver^{V}, is experience-dependent, and there is in this situation an apparent object that causes it, namely the pin – the phenomenology is remarkably other. The finger enters into the picture as that of which the property is predicated, thus evincing the presence of a further dimension in the case of bodily sensations vis à vis colour perception. In particular, a further dimension for which the notion of a sensory field seems adequate.

This naively realistic character of visual perception is the straightforward negation of the perception of a bodily field as such that, I have argued, grounds the SBO: if there is something like a visual field involved in visual perception, we ordinarily "look through it", our visual experiences thereby being transparent with respect to their represented objects. On these grounds, it makes sense that our folk concept of a visual perception does not involve a sense of ownership for visually perceived objects, and therefore that we do not

[117] This is part of the criticism that Boghossian and Velleman put forward against Christopher Peacocke (1984)'s dispositionalism about colours: by treating the colours that visual experience attributes to external objects as dispositions, Peacocke gets the phenomenology of colour experience wrong (95). As Boghossian and Velleman indicate in their footnote 16, soundly to my mind, it is one thing to be a dispositionalist about the properties *of objects* that cause colour experience, and another to be a dispositionalist about the properties that such experience *represents objects* as having. The latter involves the mentioned phenomenological problem, but its denial is compatible with the former.

have the intuition that the link between the occurrence of visual experiences and the self-attribution of their objects is necessary.

Before concluding this section, it is in order to acknowledge the following: admittedly, the contrast with somatosensation should hold for the other exteroceptive modalities as well, namely olfaction, audition, taste, and (the exteroceptive dimension of) touch. In all these modalities, the perceived object can conceivably be different from our own body, as well as not taken to be our own body.

Getting into the peculiarities of the phenomenology of every sensory modality is beyond the scope of this dissertation. Nevertheless, there are reasons to take the foregoing considerations about the naïve realism of visual perception to be enough for my purposes in relation to the Intuitive Goal. On the one hand, it has been argued that olfactory experiences are mere sensations or raw feels without representational content – thereby cashing them out in a way similar to how sensationalism approaches visual experiences (Peacocke, 1983; Lycan, 1996, 2000). Yet, as it has also been pointed out, olfaction doesn't seem to reveal particular objects as bearers of olfactory properties, since it does not achieve figure-ground segregation (Batty, 2014). Hence, even if there are reasons to describe olfactory experiences as involving a sensory field we are aware of as such, there are other major phenomenological differences between them and somatosensation, namely their lack of object identification. Therefore, the lack of involvement of a SBO in olfaction is not an urgent problem for Explicit Reflexivity. An analogous argument can be put forward to minimise a putative challenge from sensationalism about auditory experiences.[118]

In contrast, touch and vision do represent particular objects. Therefore, it makes sense that the case were made for a different phenomenology thereof that did not rely on (the lack of) object identification. The forthcoming discussion on the naïve realism of visual perception constitutes this piece of argumentation. The phenomenology of touch has been discussed previously in this work (see Chapter 2, section 2.2.1; and Chapter 3, section 3.2.2), and the relevant points about the naïve realism of visual perception were tacitly involved, mutatis mutandis, in that discussion: ordinary haptic experiences are primarily object directed, even if mediated by the bodily field. Explicit Reflexivity has a resource ready to explain this: a putative grounding relation between Properties^{S} and Properties^{RW}.

[118] For instance, by exploiting Strawson (1959)'s take on sound perception.

4.2.3. The Empirical Goal

The third and last goal set for theories on the SBO read as follows:

> [*Empirical Goal*]: any account of the SBO must leave room for the specific, sometimes abnormal relations between bodily sensations and the awareness of the felt body as one's own we seem to have evidence for in some pathological and experimental cases.

Literature on neuropathology, as well as findings in experimental psychology, offer a substantive body of empirical cases in which the relations between somatosensory experiences and judgments of somatosensation are not standard. [*Empirical Goal*] affirms that any theory on the SBO, including of course Explicit Reflexivity, must make justice to the actual facts: that is, to *all* the relevant facts. Although our theories are built around ordinary cases, they must not preclude the existence of cases in which the SBO is expressed differently from how it normally is. One way for theories on the SBO to accommodate these cases is to leave room for the content and phenomenology of bodily experiences to be, in the relevant abnormal circumstances, just as reports reveal them to be. Otherwise, if our theory on the SBO does preclude this possibility, then it must offer an independent explanation of why the experiences are reported as they are.

My aim in this section is to show that for a significant subset of the relevant cases there are ways of cashing out bodily experiences that, on the one hand, accord with the reports taken at face value, and on the other hand, are compatible with Explicit Reflexivity. Explicit Reflexivity has it that the SBO depends on the SEO: in order for a subject to have a SBO for the body she feels in somatosensation, she needs to have a SEO for the very somatosensory experiences that (re)present this body. Subjects cannot have a SBO without having a SEO for their bodily sensations. Hence, for Explicit Reflexivity to meet the Empirical Goal, it must be the case that the relevant empirical cases are compatible with this relation of dependence.

Given this relation of dependence, a case that would directly challenge the proposal would be the following: a subject has a phenomenally conscious bodily experience – say, for instance, an experience as of pain in an ankle; she does not take this experience of pain to be her own – namely she does not have a SEO for the pain; yet, she takes the body belonging to the content of

this experience to be her own – that is, she has a SBO for the painful ankle. The following judgment, asserted by a subject as an accurate description of a sensation *she is phenomenally conscious of*, would (roughly) express this structure: "There is an acute pain in my ankle, which is my neighbour's pain". This kind of case is difficult to even articulate, but admittedly this is not a reason to disregard it as a possible counterexample to Explicit Reflexivity. To my knowledge, no empirical cases reported in the literature have this structure.[119] This fact, even if inevitably provisional, partly underpins the proposal on the empirical front.

The cases to follow further contribute to this underpinning. I will address them under the following headings, which describe their general structure: to start with, "Neither SBO nor SEO", in which I will address depersonalisation (section 4.2.3.1). Secondly, "SEO without SBO", in which I will mainly discuss the case of somatoparaphrenia, as well as add a comment on xenomelia and congenital insensitivity to pain (section 4.2.3.2). Finally, "SEO and SBO", in which I will comment on the Rubber Hand Illusion (section 4.2.3.3). The qualifications to Explicit Reflexivity needed to not just accommodate the cases, but also make full sense of them in the context of the view, will be discussed in each dedicated section.

4.2.3.1. Neither SBO nor SEO: Depersonalisation

Depersonalisation is a pathological condition in which patients report to feel an all-encompassing alteration of the way in which things appear to them, including an alteration of the way in which they appear to themselves.[120]

[119] It might be said that deafferentation (Cole, 1995) fits this description. Deafferented patients have no proprioceptive nor tactile feedback from their bodies beyond their neck, but they can regain control over their limbs by visually monitoring them. While they feel alienated from their body before acquiring this capacity, afterwards they report to have partly recovered the feeling of owning their body. The case is however not a counterexample to Explicit Reflexivity because the allegedly problematic notion of a *sense of bodily ownership* involved in it is not that of *an awareness the body one feels in somatosensation as being one's own*. Deafferented patients do not self-attribute their bodies *in reports of proprioception or of touch*, simply because they do not have these experiences – and therefore they do not have a SEO for them. They indeed self-attribute their bodies with more conviction after learning how to control them, thereby expressing what we could call "SBO*": the awareness of the body one visually controls as one's own. Nothing in Explicit Reflexivity precludes the possibility that judgments of bodily self-attribution be yielded – or even are ordinarily yielded – by experiences different from somatosensation. This route to bodily self-attribution is, however, not the route we are concerned with.

[120] The depersonalisation syndrome often includes experiences of derealisation, namely "experiences of unreality or detachment with respect to surroundings (e.g. individuals or objects are experienced as unreal, dreamlike, foggy, lifeless, or visually distorted)" (American

Patients who suffer from depersonalisation report to have experiences of detachment, or of being an outside observer, with respect to their thoughts, feelings, sensations, body, or actions (American Psychiatric Association, 2013). Although momentary episodes of depersonalisation can appear in depression or anxiety processes, there are also cases of long-term, persistent depersonalisation. One of the defining features of the syndrome is the report of anomalous bodily experiences, or desomatisation (Sierra, 2009; Billon, forthcoming). In particular, patients consistently express to feel alienated from their bodies, or to lack an experience of body ownership. In fact, one of the items of the Cambridge Depersonalisation Scale, the current standard scale for diagnosing depersonalisation, reads thus: "parts of my body feel as if they didn't belong to me" (Sierra and Berrios, 2000). The following reports of patients illustrate this symptom:

> "I do not feel I have a body. When I look down I see my legs and body but it feels as if it was not there … I am walking up the stairs, I see my legs and hear footsteps and feel the muscles but it feels as if I have no body; I am not there … I see my hands and my body doing things but it does not feel like me and I am not connected to it at all. I don't feel alive in any way whatsoever … Even if I touch my face I feel or sense something but my face is not there. As I sense it I have the need to make sure and I rub, touch, and hurt myself to feel something. I touch my neck for instance with my hand but it doesn't feel like my hand touching my neck. I can't feel me touching my own body." (Sierra, 2009, 29)

> "I can sit looking at my foot or my hand and not feel like they are mine. This can happen when I am writing, my hand is just writing, but I'm not telling it to. It almost feels like I have died, but no one has thought to tell me. So, I'm left living in a shell that I don't recognize any more." (Sierra, 2009, 27)

Subjects suffering from depersonalisation typically have an intact capacity to receive proprioceptive feedback from their bodies. Besides, they are typically not delusional, and they take good care of reporting their feelings exactly *as such*: for instance, as seen in the first of the reports just quoted, they often express to feel *as if* things were thus and so. Yet, despite their believe that the

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Psychiatric Association, 2013). Yet, depersonalisation and derealisation do not always appear together, and they can be conceptually distinguished: the former refers to altered *self*-experience, while the latter concerns the perception of one's surroundings. For a study of the relations between depersonalisation and derealisation, and of their underlying neurobiological mechanisms, see Sierra, Lopera et al. (2002).

body they receive proprioceptive feedback from is in fact their own, they are reluctant to straightforwardly claiming that they properly feel it to be, expressing a vivid experience of estrangement with respect to it.

In the context of Explicit Reflexivity, this distortion of the SBO in depersonalisation comes out as a natural consequence of an alteration of self-consciousness that is much more general. In fact, Explicit Reflexivity offers us the tools to carefully dekernel this idea: the *explanation* of the fact that the SBO is somewhat diminished for these patients is that it is a function of their SEO, and that the latter appears diminished as well.

Indeed, subjects who suffer from depersonalisation typically report to feel detached from their psychological lives altogether. They are somehow "dementalised" (Billon, forthcoming), consistently expressing a feeling of alienation from their own experiences. In the most extreme cases, this impression is so recalcitrant that it leads patients to claim that they feel as if they do not exist, or as if they are dead, as reflected in the reports quoted above. It is very illustrative for our purposes to mention that patients are often reluctant to referring to themselves by using first person pronouns bluntly (Billon, 2016b). Rather, they pick themselves out in discourse by means of roundabout constructions that reveal the tension between their description of conscious experiences they undergo – they adequately talk about occurrent experiences and their types, such as recollections, perceptions of their surroundings, or performance of actions –; their uneasy relation with these experiences; and their knowledge that they themselves are the subjects who are (not) having the experiences.[121]

As mentioned, this feeling of detachment, often reported and studied with respect to emotions,[122] is all-encompassing. In particular, it affects bodily sensations as well. In their seminal study on depersonalisation, Dugas and Moutier (1911, 24-25) say that "patients still undergo sensations, but the sensations do not move them anymore, they do not touch them anymore; they are completely indifferent, 'neither dead nor alive'" (my translation). In fact, item number 22 of the Cambridge Depersonalisation Scale reads as follows:

[121] The following reports would be examples of this: "I don't know who I am – of course I am **** but I feel like a robot, like I am listening to someone else talking, like I am looking at myself from the outside, but it is not another voice or body – it is mine, it is me, it just doesn't feel like it" (Baker et al., 2003, 432); "It's as if a machine was talking to you. Not a person at all, just a mechanical thing or object. I would notice my hands and feet moving, but as if they did not belong to me and were moving automatically" (Sierra, 2009, 29); "I can remember things, but it seems as if what I remember did not really happen to me" (Sierra, 2009, 33).

[122] See e.g. Phillips et al. (2001), Sierra, Senior et al. (2002), and Dewe et al. (2016).

"when a part of my body hurts, I feel so detached from the pain that it feels as if it were 'somebody else's pain'". Illustrating this point, one patient reports: "I feel pains in my chest, but they seem to belong to someone else, not to me" (Mayer-Gross, 1935, 114).

In sum, these patients feel as uncomfortable with the idea that *their own* body is in this or that condition, as they are with the idea of it being *themselves* who feel it to be. Explicit Reflexivity allows to frame this within a more general distortion of the awareness of phenomenally conscious experiences as one's own: plausibly, one will have trouble *self*-attributing a felt body if one is unsure of there being a proper experiencing *self* to whom the body belongs. In other words, one cannot have a SBO without having a SEO.

4.2.3.2. SEO without SBO: Somatoparaphrenia

Somatoparaphrenia has been reported mostly in patients with right brain damage who have motor and somatosensory deficit, as well as unilateral spatial neglect. Gerstmann (1942) coined the term – *somatoparaphrenia* – to refer to "illusions or distortions concerning the perception of and confabulations or delusions referring to the affected limbs or side" (895). In particular, somatoparaphrenia is characterised by the productive symptom (Vallar, 1998) by which patients claim, about the contralesional side of their bodies, that it doesn't belong to them, sometimes attributing it to somebody else. For the periods of time in which the delusion occurs, patients hold their disownership beliefs recalcitrantly. The following reports of patients in conversation with their examiners illustrate the impenetrability of their disownership delusion:

> E: Can you name all your left fingers as you touch them, please? (He performs the task well).
> P: But they are not mine.
> E: Well, whose fingers can they possibly be?
> P: I don't really know.
> E: Look at this hand (patient's left hand), very carefully: whose hand could it be?
> P: I don't know… may be it is mine. But no, I'm sure, it isn't mine, I don't feel it as my hand.
> E: (The examiner put her left hand under the patient's one) Try to touch your left hand with your right one, please.
> P: Here it is! (He caught the examiner's hand).
> E: Whose hand are you touching?

P: It is mine.
E: And whose is this? (while E is touching the patient's left hand).
P: This is yours.
(Cogliano et al., 2011, 765)

"Mine or yours? It's a female hand. It could be of the nurse but it wears my pyjamas. It's strange." … "I woke up last night and called the nurse because there was this hand here and I thought that Nadia forgot it. I wanted to give it back to her. She cannot work without it. Poor Nadia." (Gandola et al., 2012, 1177)

E: Mr. C., look at this. What is this? P: Your hand. E: My hand? Are you sure? P: Yes, of course. It couldn't be mine. E: Why? P: It looks groomer than mine. E: From zero to ten, how much are you sure that this is not your hand? P: Ten. E: How much are you sure that it is mine? P: Nine and a half. E: (after placing his left hand near the patient's one). Can you choose your own hand among these ones? P: They are both of you. E: (after placing both his right and left hands near CP's one). And now? P: They are yours. E: All of them three? P: Yes. E: Don't you think they are too many hands for me? P: (smiling at the examiner). You are a polyp! (Invernizzi et al., 2013, 149)

Importantly, cases have been reported in the literature in which, still endorsing their beliefs of disownership, patients report to feel sensations in their disowned limbs. I have referred to one of these cases in Chapter 1 (section 1.3): Moro et al. (2004) describe two right brain-damaged patients with tactile extinction in their contralesional hand, whose tactile detection increases when stimuli are delivered to their left hand placed in the right hemispace. Spatial disposition, however, has no effects in reports of disownership: they keep claiming that their left hand does not belong to them, regardless of where it is located. Aglioti et al. (1996) describe a case of the same type. Their patient C.B. suffered a right hemisphere stroke and presented motor and sensory deficits in the left side of her body. Positioning her left hand in the right space brought in "dramatic improvement" in the left hand accuracy. Yet, they point out, "[i]t is remarkable that when the left hand was in the heteronymous hemispace C.B. reported feeling stimuli on a hand that, in her opinion, did not belong to her" (295). A relevantly similar case is reported in Bottini et al. (2002), whose patient F.B. attributed her impaired left hand to her niece. Examiners explored the relation between her tactile deficit and her delusion by briefly touching the dorsal surface of her hand and warning her, at each trial, that they were going

to touch either her right hand, her left hand, or her niece's hand. F.B's tactile imperception only recovered, dramatically, when she was required to report touches delivered to her niece's hand – namely those which matched her delusion.

These cases make of somatoparaphrenia the paradigmatic pathological condition as for the lack of a SBO. Somatoparaphrenic patients undergo bodily sensations that, judging by their reports, are localised – i.e. all reports include specific references to *hands*. However, they simultaneously deny that the hands in which they feel touch are their own.

Relevantly for us, in the reports of these patients there is no indication that they do not have a SEO for the sensations they report to feel in their disowned limbs – even if they are only mild. Their delusion is restricted to self-attribution of the relevant body parts: they do not manifest a more encompassing uneasiness with their psychological lives that should suggest a problem of self-consciousness of a more general nature. In this sense, the general schema of their pathology is logically compatible with the relation of dependence dictated by Explicit Reflexivity: the SBO requires of the presence of the SEO, the view says, but not vice versa. It is in principle possible, then, to have a SEO for one's sensations without having a SBO for the body part where they are localised. Admittedly however, cases of this type call for an explanatory hypothesis about the specific phenomenology of the bodily experiences involved.[123] For, if they have a SEO for their sensations, why should these patients *not* have a SBO for the relevant body parts?

In what follows I will argue that an explanatory hypothesis is available that is compatible with Explicit Reflexivity. The proposal is that somatoparaphrenic patients who have sensations in their disowned limbs experience these limbs as they experience other worldly objects. Explicit Reflexivity offers a way of actually substantiating this claim: the somatosensory experiences by which somatoparaphrenic patients pick out their disowned limbs do not convey properties *as experience-dependent*. The proper specification of the content of these experiences of theirs is thus the following:

Experience_{M} (P is instantiated in L),

[123] Just as my proposal, and the general line of research pursued in this dissertation, are phenomenological, the hypothesis wanted here is about the possible phenomenological specificities of somatoparaphrenic experiences, and not about their cognitive underpinnings.

where "Experience$_M$" stands for a somatosensory experience – e.g. a tactile experience – which patients ordinarily self-attribute. Since the content of the experience is as described, patients do not self-attribute the body part ultimately represented by it.

For an illustration of this point, consider the contrast between ordinary experiences of coloured objects and afterimages – in particular, for the sake of the argument, consider the contrast between ordinary experiences of coloured objects, and the intuition about afterimages vindicated by sensationalists. Suppose now that a red apple stands on the table in front of me. In normal circumstances, Redness is such that I experience it as a property of the apple itself, namely a property the apple has independently of my perceptual relation with it. This is so even if we admit that, for all normal experiences of red, there is a qualitative property involved in the experience – which we can call *Red^V*. Qua qualitative property, Red^V is an experience-dependent property. Ordinary perceptual experiences as of red apples, however, are such that we "look through" Red^V.

On the other hand, there is such thing as the perception of a red afterimage, for instance after directly looking at the sun. The relevant intuition dictates that, in this case, the colour perceived is not attributed in the experience to anything that the experience represents. Rather, in this case Red^V stands out as such, so that we predicate it from a putative visual field. Experiencing colour in this way is experiencing it *as experience-dependent*, I have claimed: in contrast to red apples, the red visual field is "our own" in a peculiar sense.

The contrast just described between the perception of a red apple and the perception of a red afterimage is indeed a phenomenological one. It is important to note, though, that there is something, also qualitative, that remains constant across the two cases. Both experiences count as instances of visual perception, and not only in the sense that both of them involve the visual system. It is also the case that I have been able to describe *both* experiences as involving *red* rather unproblematically. There is something essential to Red^V that allows us to group experiences as of red objects and experiences as of red afterimages – as opposed to, say, blue objects and blue afterimages – as members of a type, and which is independent from our *awareness of the experience-dependency* of the property.

From the point of view of Explicit Reflexivity, somatoparaphrenic patients feel tactile sensations in their disowned limbs as they see Redness in

red apples. To put it more precisely, let us take Depressed^{S} to be the property they feel instantiated in their hand when their examiners touch it. I have argued that, in ordinary cases, Depressed^{S} is felt in the hand in a way akin to how Redness^{V} is part of the experience in (sensationalist) afterimages. But, I have just pointed out, nothing about the quality of colours prevents us from seeing them as properties of worldly objects, circumstances allowing. My suggestion is that, in parallel, nothing intrinsic to Depressed^{S} precludes the possibility of it being experienced as a property of objects perceived as standing beyond the bodily field. More generally put, nothing intrinsic to Depressed^{S} makes it the case that they must be *experienced as experience-dependent*. This explains the character of the relevant tactile experiences of somatoparaphrenic patients. Instantiations of Depressed^{S} are anyway experience-dependent: they would not occur if patients were not having the experiences by which they perceive, as well, what are in fact the examiner's fingertips against their flesh. But this is not straightforwardly equivalent to subjects *being aware of* the experience-dependency of the property. In abnormal circumstances, such as those of somatoparaphrenia, subjects may "look through" Depressed^{S}.

This is in principle compatible with the fact that, even if abnormal, these experiences count as somatosensory in type, not just because they are caused by the relevant cutaneous receptors, but because of their qualitative properties. For instance, these experiences probably are qualitatively akin to other tactile experiences the patients have, localised in limbs that they do feel as their own. Patient F.B. of Bottini et al. (2002) is useful as a case in point here: the examiners' warning that they are going to *touch her hand* brings about a sensation – arguably not *any* sensation, but a tactile one. The authors write that "[i]mmediately after the experiment we asked F.B. how she could report *touches on someone else's hand*" (my italics), to which F.B. admitted: "[y]es, I know, it is strange" (251). As much as it confirms that she feels what appears to her to be someone else's hand, and that she finds this strange, F.B.'s statement is a confirmation that what she feels is what the examiners announce, namely touch.

In order to refine the present discussion on somatoparaphrenia, there is yet a further argumentative spin of Explicit Reflexivity to be taken into account. On the one hand, the point we are at now concerning somatoparaphrenia is this: (a) somatoparaphrenic patients have sensations localised in parts of their body; (b) these sensations involve experience-dependent properties; (c) the patients do not feel as their own the body parts

conveyed by these sensations; (d) the reason for (c) is that the sensations do not convey their properties *as experience-dependent*. On the other hand, Explicit Reflexivity proposes the notion of bodily field to specify the distinctive way in which the body is ordinarily perceived in somatosensation. Among perceived objects, and in particular those somatosensorily perceived, the body is the designated one *in the specific sense that* it enables, and is perceived as enabling, the somatosensory perception of other objects. This role of the body brings in the reflexivity expressed by the first-person in the content position in judgments of somatosensation.

According to Explicit Reflexivity, this line of thought *analyses what it means* to have sensations as of properties instantiated in a location in somatosensation, and the role of the subsequent experience of bodily boundaries. But item (a) mentioned above is true: patients who suffer from somatoparaphrenia have sensations as of properties instantiated in a location. Hence, the claim that they do not feel Properties^{S} as experience-dependent might appear deceitful, unless there is evidence that the claim boils down to, or can be reformulated as, a claim about these patients' perception of bodily boundaries, and thereby about the patients' relation to worldly objects beyond them.

Some facts about somatoparaphrenia can be brought up to this effect. To start with, the fact that somatoparaphrenia is systematically associated with extrapersonal hemineglect (Vallar, 1998), namely an incapacity to represent or engage in exploration of extrapersonal space at their contralesional side – that is, the side corresponding to the impaired limb. For instance, in the line bisection test, in which subjects are asked to mark the centre of a 20 cm horizontal line printed on an A4 sheet placed on the mid-sagittal plane of their body, patient F.B. (Bottini et al., 2002) made a massive error, marking the mid-point on the right extreme of the line. In the Albert's cancellation test, in which subjects are asked to cross out 40 short lines printed on an A4 page, F.B. crossed out just the six lines on the extreme right side of the paper.

More generally speaking, somatoparaphrenic patients systematically ignore, and have no sense whatsoever of, the space immediately beyond their impaired limbs and the objects in it, and typically are off-target when required to reach for objects on this area. In their review of the literature on somatoparaphrenia, Vallar and Ronchi (2009) write that "[t]he closer association between somatoparaphrenia and extrapersonal neglect may reflect the fact that one main feature of somatoparaphrenia is a blurred distinction

between corporeal (namely, the patients body parts), and extracorporeal objects (namely, body parts of other persons, or other non-corporeal objects)" and that "[t]his type of impairment may involve a disordered representation of objects in extrapersonal space" (545). In the context of Explicit Reflexivity, part of this spatial deficit can be explained by the fact that, in the representation of the part of extrapersonal space in their contralesional side, the patients cannot benefit from mapping the properties of external objects on the properties of *their own* body, that is, of the body experienced as a sensory field. In other words, conditions are not met for Properties^{RW} to be grounded on Properties^{S}.

Other pieces of data worth mentioning here are, firstly, the difficulties of some somatoparaphrenic patients to fully picture the contour of their own bodies. For instance, patient A.F. from Moro et al.'s (2004) study, who was able to draw from memory a prototype of a human figure, draw her own body image with three question marks in the area where her left hand should have been. Secondly, some patients, such as A.G. from Cogliano et al.'s (2011) study, suffer from tactile allochiria: A.G. could detect light touch stimuli delivered to his impaired left hand, but on 30% of the trials he transposed the stimuli from left to right. This constitutes a reason to think that yet another prediction of Explicit Reflexivity regarding spatial perception in somatoparaphrenia is spot-on: since the relevant tactile sensations do not belong to their bodily field, somatoparaphrenic patients have problems to adequately locate these sensations in their bodies, as well as to situate them in relation to other properties that are constituents of the field – that is, ultimately, in relation to other bodily parts.

This brings me to the very last consideration regarding somatoparaphrenia. Nothing of what has been said implies that somatoparaphrenic patients do not have a bodily field. For all ordinary bodily sensations that these patients have, these sensations unproblematically involve properties experienced as experience-dependent. These properties will therefore be properly related to one another, and will represent the body that the patients will normally self-attribute. The substantive point about this condition is that, for all the sensations that concern their disowned limbs, the properties conveyed by these sensations are not constituents of the bodily field.

The range of pathologies involving some sort of bodily estrangement is vast and diverse, and it is not always obvious at which point in the spectrum

each specific case should be placed: there are indeed cases in which the *presence* of a SBO is less clear than it is in clear-cut cases of non-pathology; and there are also cases in which the *lack* of a SBO is less clear than it is in clear-cut cases of lack of SBO such as somatoparaphrenia. The difficulty of properly describing each of these cases is partly due to the difficulty that patients themselves have to make meaningful reports that capture their experiences, as well as to a corresponding difficulty to interpret these reports. Since there is a plethora of such cases, it would be unrealistic to make the case here that my account can offer an interpretation of all of them.

Nevertheless, one can already see how the kind of material I have deployed in the treatment of depersonalisation and somatoparaphrenia would help me deal with all this range of cases. My view is compatible with the SBO being somehow flexible and gradable, since it is a product of various factors: the amount of Properties^{S} making up the bodily field, as well as their quality and relative phenomenal saliency – all of them diachronically variable, and directly bearing on the phenomenal richness and presence of the bodily field. All of those, in turn, are a function of the type and amount of somatosensory experiences subjects have, and whether or not they have a SEO for these experiences.

With this in mind, I will close this section by briefly mentioning two more pathologies that concern specifically the SBO, without in principle involving general SEO impairments. In this sense, as I mentioned, they are at least logically compatible with Explicit Reflexivity. The first pathology plausibly illustrates the fact that membership of a group of bodily sensations, and their corresponding Properties^{S}, to a subject's bodily field is graded, and hence more or less clear-cut felt. Xenomelia – also called *apotemnophilia* or *Body Identity Integrity Disorder* (BIID) – is a condition in which subjects have a desire for amputation of a healthy limb (Sedda and Bottini, 2014). This desire is reportedly related to an oppressive feeling that the limb in question does not belong to oneself and that, if the limb were amputated, one's identity would be restored. Patients often report the feeling that they would be "complete", instead of "overcomplete", if they had the relevant body part removed (First, 2005; Hilti et al., 2013; Romano et al., 2015). Patients with xenomelia do not have motor or sensory deficits, and their disorder is not better explained by other medical or psychiatric syndromes (Ryan, 2009). The following is a report from one patient:

> "I don't understand where it comes from or what it is. I just don't want legs. Inside I feel that my legs don't belong to me, they shouldn't be there. At best my legs seem extraneous. I would almost say as if they're not part of me although I feel them, I see them, I know they are . . .". (BBC Documentary *Complete Obsession*, 3rd April, 2019)[124]

As this report illustrates, xenomelic patients are perfectly aware that the limb they reject is actually their own ("*my* legs don't belong to me"). They are not delusional, and they in fact acknowledge the awkwardness of their desire. In this sense, their condition is similar to depersonalisation, although concerning bodily awareness exclusively. Despite this acknowledgment, however, their desire for amputation is so compelling that it might result into clinically significant distress, sometimes leading patients to attempting self-amputation.

Xenomelia is often read as revealing a mismatch between the biological body of the patients and their representation of it (e.g. First, 2005; Ramachandran and McGeoch, 2007). From the point of view of Explicit Reflexivity, this can be made more precise by saying that, for those bodily sensations by which xenomelic patients feel the "disowned" limb, at least some of these sensations do not convey properties experienced as experience-dependent. A consequence of this is that they urgently want to get rid of the "object" attached to their body. Maybe because not all the sensations by which they feel the limb have this sort of content, or because of their sensitivity to other beliefs they hold, according to which their rejected limb is their own, these patients are not as resolute in their denial of ownership as somatoparaphrenic patients are. In line with this softening of the condition, they are generally functional. However, they do report feeling relieved when they engage in pretence behaviour, such as tying their leg so that it fits their desired body shape. In other words, they feel relieved when they can engage with the environment dealing with *their own* body only.

The last pathology worth mentioning here is congenital insensitivity to pain (Nagasako et al., 2003). Patients with this condition suffer from an impairment to feel pain sensations since birth, showing no reaction to pinpricks, pressure, tissue pinching, or harmful thermal stimuli – which they can feel and locate, but to which they have no affective response. These patients often describe feeling as if their body were an external object or tool

[124] At the time of completing this dissertation, this documentary was available at https://www.imdb.com/title/tt0605138/?ref_=ttep_ep9 .

(Frances and Gale, 1975). Again, Explicit Reflexivity would accommodate these cases in terms of *un*awareness of the experience-dependency of felt properties, incorporating for instance the moral that de Vignemont (2018, 188) draws from these cases: "[t]ouch and vision contribute to the delineation of the boundaries of one's own body, but they do not contribute to the sense of bodily ownership in the way that pain does". In other words, some sets of sensations might be more central than others in the configuration of the bodily field, at least when it comes to the vividness and, as it were, the "presence to consciousness" of the Properties^{S} they involve. It might well be the case that a subject that has never had the sort of experiences that, I have argued, are comparatively more phenomenally salient *as such*, have a less vivid experience of their body as a bodily field.[125]

4.2.3.3. SEO and SBO: the Rubber Hand Illusion

The Rubber Hand Illusion (RHI; Botvinik and Cohen, 1998) is the central experimental paradigm for philosophers working on the SBO. Just to recall, in its original setup experimenters have a subject seat with her left arm on a table and place a screen beside it in order to hide it from the subject's view. A rubber model of a left arm and hand is then placed on the table in front of the subject. The experimenter strokes the rubber hand and the subject's hand, making either synchronous or asynchronous movements, while the subjects' eyes are fixated on the rubber hand. The illusion occurs only in the synchronous condition. In this condition, after the stroking subjects report to "agree strongly" with the claims that "it seemed as if I were feeling the touch of the paintbrush in the location where I saw the rubber hand touched"; "it seemed as though the touch I felt was caused by the paintbrush touching the rubber hand"; and "I felt as if the rubber hand were my hand". Whereas in somatoparaphrenia we find patients who deny ownership of their own limbs, the last of the claims mentioned suggests that subjects under the RHI have a SBO for a limb that is in fact not their own.

[125] We could plausibly analyse the case of tool use by following this model too, as de Vignemont (2018) suggests. We can have referred sensations in tools, such as tactile sensations, but yet we do not generally have a sense of ownership for them – or at least there is a sense in which it would seem odd to claim that the spoon with which we stir the soup is "ours". Relevantly, the range of sensations we feel in tools is very limited: for instance, we do not feel pain in them.

The fact that the illusion only works in the synchronous condition reveals the effect of visual capture of touch. When there is spatiotemporal congruence of the visual, tactile, and proprioceptive inputs, somatosensation adopts a secondary role as for the determination of the location of the felt body, shifting its perceived location in the direction of the hand that the subject sees. The first two claims endorsed by subjects under the illusion illustrate this phenomenon: "it seemed as if I were feeling the touch of the paintbrush *in the location where I saw* the rubber hand touched"; and "it seemed as though the touch I felt *was caused by the paintbrush touching the rubber hand*". Besides, subjects typically point to a location closer to the rubber hand than to their own left hand when asked where their left hand is after the stroking. Still, this of course doesn't mean that there is *no* somatosensory experience involved in the RHI: subjects indeed locate tactile properties in the rubber hand.

The illusion created in this experimental paradigm does not concern the SEO. Subjects involved in the experiment do not report to feel alienated from their tactile sensations in any sense. That is, they have a SEO for their tactile experiences, revealed by the relevant first-person pronoun: "it seemed as if *I* were feeling…", "it seemed as though the touch *I* felt was…", or "*I* felt as if the rubber hand were my hand". Besides, it is clear that the intuition captured in the Intuitive Goal, according to which bodily sensations "come with" a SBO, is also respected.

Things being thus, the RHI poses no challenge to Explicit Reflexivity, and can be unproblematically accommodated by it. In the RHI, subjects undergo a tactile experience the content of which is the rubber hand – namely a tactile experience that borrows, as it were, the content of their visual experience. Hence, their tactile experience is illusory in two senses: firstly, in that it represents the rubber hand as the hand in which touch is occurring, and secondly, in that it represents the rubber hand as their own hand. Yet, that their tactile experience represents the rubber hand *as their own hand* shouldn't come as a surprise, insofar as it is a *somatosensory experience* of the rubber hand. In the context of Explicit Reflexivity, somatosensory experiences such as tactile experiences typically involve awareness of the relevant properties as dependent on experiences themselves, and hence subjects under the RHI have a SBO for the object (mistakenly) represented as bearing these properties. Following in with Explicit Reflexivity's main tenets, the felt location of the sensation demarcates the extension of the bodily field. One consequence of this fact is that when they see the rubber hand being threatened, subjects

display increased affective response and withdrawal behaviour – which, of course, does not succeed in putting the rubber hand under cover, since they can only withdraw their own real hand. Put in terms of Explicit Reflexivity, by locating tactile properties in the rubber hand subjects represent it as the hand by which they would somatosensorily perceive the threatening instrument, for instance by feeling pain.[126]

4.3. Conclusion

The considerations presented in this chapter conclude the abductive reasoning in favour of Explicit Reflexivity that I have deployed throughout the dissertation. The demand for an illumination of the explanatory knitting between the SBO and that which specifies it has been addressed by putting forward Explicit Reflexivity in Chapter 3: that chapter explores the possibility of embedding the specific kind of reflexivity of canonical expressions of judgments of somatosensation into the very content of somatosensation. To this effect, I argued, including the SEO in the explanans becomes urgent – besides the independent plausibility of the move.

As a result, Explicit Reflexivity fares better than its alternatives in meeting the goals defined, as I have argued in the present chapter. Embedding a reference to the subject of the experience in the content and phenomenology of bodily experiences is the straightforward way to meet the Judgment Formation Goal. Besides, philosophical tools are at our disposal to show that exteroceptive experiences do not generally have a content or a phenomenology akin to those attributed here to somatosensation. The Intuitive Goal is thereby met.[127] Finally, the abductive defence of my proposal includes the fact that some central empirical cases which concern the SBO can be accommodated by it. Indications on how further cases could be treated are also provided. This, I have argued, amounts to meeting the Empirical Goal.

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[126] This line of reasoning could in principle be deployed in relation to all the bodily illusions obtained by visual capture of touch, such as the Tool Ownership Illusion (Cardinali et al., under revision. Cited in de Vignemont, 2018), the Invisible Hand Illusion (Guterstam et al., 2013), the Supernumerary Hand Illusion (Guterstam et al., 2011), the Full-Body Illusion (Lenggenhager et al., 2007), or the Out-of-Body Illusion (Ehrsson, 2007).

[127] I have also argued, however, that cases of exteroception that might have akin contents and phenomenology are, in any case, not an unsurmountable challenge to Explicit Reflexivity (section 4.1.1, "The objection from afterimages").

Conclusions

What I have done

This thesis has been an investigation into the feasibility of a fully experientialist account on the SBO. An original Experientialist Account, *Explicit Reflexivity*, has been proposed and defended. On the way to proposing and defending the account, I have put forward several claims, significant for the debate on the SBO as well as for philosophical discussions on self-consciousness more generally.

In Chapter 1 I have proposed a non question-begging notion of *sense of bodily ownership* (SBO), taking judgments of somatosensation in which the body is qualified with a first-person indexical as a datum and an explanandum. I have identified three core features of the SBO thus defined: the involvement of the first-person in it; the seeming compellingness of this involvement; and its empirical relevance. With this non question-begging notion and its analysis, I have helped settle the debate on the SBO. I have articulated it as the attempt to answer the Constitutive Question, and I have put forward three desiderata that views on the SBO must satisfy. Each of these desiderata flow from one characteristic feature of the SBO. I have labelled these desiderata the *Judgment Formation Goal*, the *Intuitive Goal*, and the *Empirical Goal*.

Still in Chapter 1, I have pointed out the parallel between the SBO and another phenomenon, the *sense of experience ownership* (SEO). I have put forward an also non question-begging definition of the SEO, and I have proposed three basic features of it, analogous to those of the SBO. I have thereby contributed to settling the debate on the SEO, articulating it as the attempt to answer the Constitutive Question – E. I have proposed three desiderata for views within this debate, which flow from the central features of the SEO. I have called these desiderata *Judgment Formation Goal – E*, *Intuitive Goal – E*, and *Empirical Goal – E*.

By presenting these two notions and debates, I have stressed the philosophical significance of their similarities. This significance has been emphasised by pointing out the remarkable metaphysical differences between experiences and bodies qua owned phenomena. This has been taken as part of the motivation for the type of approach to the SBO defended in this dissertation, according to which there are explanatory relations between it and

the SEO. I have further underpinned this sort of project by pointing out that the SEO and the SBO co-occur in bodily experiences, and that this co-occurrence is not anecdotal or accidental. Rather, it manifests that several of the senses in which we say of subjects that they are self-conscious converge in somatosensation. The specific explanatory relation that I hold – namely that the SEO is part of an explanation of the SBO – has been initially motivated with the observation that the SEO is more pervasive a phenomenon than the SBO.

I have opened Chapter 2 by going into detail about what it means for a fully *Experientialist Account* on the SBO to meet the Judgment Formation Goal. I have analysed canonical expressions of judgments of somatosensation as containing, as part of their (first-personal) content, a reference to the subject of the experience qua subject of the experience. I have established that this is the sort of *reflexivity* that views on the SBO need to explain. In particular, Experientialism about the SBO is committed to embedding this sort of reflexivity in the content of bodily experiences. I have also justified the value of a minimal form of Experientialism.

Chapter 2 has had a mainly critical aim. I have shown that *Spatial Deflationism* and *Property Deflationism* fall short of accounting for the SBO. The general line of my arguments has been the following: if we reduce the experience of the body as our own to an aspect of somatosensation that exteroception also has, then it is not clear why only in the former the body stands out in the way it does. The farthest a proposal of this sort can go is to establish a brute a posteriori identity between the SBO and that which specifies it. This leaves an explanatory gap between the content of somatosensory experiences and the reflexive expression thereof. For these reasons, I have argued, Spatial Deflationism and Property Deflationism fail at meeting the Judgment Formation Goal and the Intuitive Goal.

Chapter 2 has a more positive outcome as well. On the one hand, I have presented the various types of Deflationism as having shortages of the same sort. On the other hand, I have clearly stated the central tenets of Spatial Deflationism and Property Deflationism as for their description of bodily experiences, respectively the *sense of boundedness* and the *experience-dependency* of the properties involved in somatosensation. I have also presented the theses on the SBO associated to these tenets, namely the *Boundedness Thesis* and the *Property Thesis*. These considerations shed light on the debate on the SBO by defining the scope and limitations of a given set of views within it.

In Chapter 3 and Chapter 4 I have put forward my original proposal on the SBO and I have defended it against several objections. Explicit Reflexivity takes in the basic aspects of bodily experiences put forward by Spatial Deflationism and Property Deflationism: the sense of boundedness and the experience-dependency of properties. These two aspects converge, I have argued, in the notion of a *bodily field*. The view hence explains the SBO by spelling out the basic idea of having sensations as of properties in a location. Besides, Explicit Reflexivity includes the SEO as part of the specification of the SBO. This fulfils the independently motivated idea of there being explanatory relations between the SEO and the SBO.

The inclusion of the SEO in the specification of the SBO follows from the very notion of bodily field, I have argued. This inclusion confers bodily experiences with the desired sort of reflexivity: by being token reflexive, ordinary bodily experiences include a reference to the experience itself as part of their content. But experiences are typically marked *as one's own*. The content of bodily experiences therefore typically includes a reference to the subject of the experience. Explicit Reflexivity thus captures the actual philosophical significance of the fact that the SEO and the SBO co-occur in bodily experiences.

I have argued that, by cashing out things in this way, Explicit Reflexivity meets the Judgment Formation Goal. Furthermore, the type of content and phenomenology of somatosensory experiences that this view exploits is exclusive of them, vis à vis exteroception. Hence, the view satisfies the Intuitive Goal. Finally, I have shown that Explicit Reflexivity is extensionally adequate, at least for a significant set of empirical and pathological cases. Since it meets the three desiderata, Explicit Reflexivity has been shown to stand in a better position than the deflationist positions available in the literature.

In sum, in Chapter 3 and Chapter 4 I believe to have shown that a fully experientialist view on the SBO that demands as parsimonious a content to bodily experiences as authors generally agree on is possible. I have done so mainly on the grounds of phenomenological reflection about bodily sensations. My proposed view, furthermore, settles general worries about the significance of discussions on bodily awareness within discussions on self-consciousness more generally.

What to do next

The work here presented opens up further lines of research that I think are worthwhile pursuing. To wrap things up, I will mention two of them.

A natural step to take after this dissertation is to engage in the debate on the SEO. Simply acknowledging the existence of the SEO was enough for the purposes of this thesis. Nevertheless, a full-fledged development of Explicit Reflexivity requires a positive account of this phenomenon. Just to recall, a fully explanatory proposal on the SEO will account for the self-attribution of experiences typically yielded by one's undergoing them; for the seeming compellingness of this self-attribution; and for the empirical cases relevant to the discussion.

It is worth noticing that, as a matter of fact, the project on the SEO is intimately connected with the extremely well explored topic of what it is, generally, for a mental state to be phenomenally conscious. I will not go into the details of this discussion here.[128] For the purposes of illustrating this connection, it is useful enough to mention the classical Nagelian (1974) phrase: if a state is phenomenally conscious, then there is something it is like *for a subject* to undergo this state. In Chapter 1 (section 1.4.3) I warned about the leap involved in claiming that *I* undergo a certain phenomenally conscious experience on the grounds of *there being* a phenomenally conscious experience. But, as should be clear by now, this is not to deny the intuition of a necessary connection between the latter and the former. As I see it, the more effective a theory of phenomenal consciousness is in yielding an explanation of the subjectivity typically involved in phenomenally conscious states, the better theory of phenomenal consciousness it is. Of course, there are independent arguments that favour some views about phenomenal consciousness over others in this specific respect. But Explicit Reflexivity might constitute a further element to take into account: subjectivity, in the sense of the SEO, plays a role in accounting for our experience of the body as our own in somatosensation. Hence, accounts of phenomenal consciousness that ease the explanatory involvement of the SEO into the SBO are to be preferred. I contend that the accounts of phenomenal consciousness that ease this involvement are those compatible with Experientialism about the SEO.

Another research avenue that this dissertation opens up concerns the notion of immunity to error through misidentification (IEM). IEM has been

[128] For a useful discussion of the connection between these two debates, see Guillot (2017).

central in studies on self-consciousness in the intersection of philosophy of mind and epistemology in the last few decades.[129] IEM is a special type of epistemic security arguably displayed, on the one hand, by judgments of experience, and on the other hand, by judgments of somatosensation in normal conditions. In this thesis I haven't dealt with epistemological matters. However, the transition from the discussion on the *senses* of ownership to the debate on IEM seems to me straightforward, and very illuminating. I think that there are substantive things to say about the relation between SEO and the psychological self-ascriptions that are IEM, as well as about the relation between SBO and the bodily self-ascriptions that are IEM.

In order to clarify this, I need to briefly introduce the notion of IEM. It was Shoemaker (1968) who famously coined the idea that some judgments in which subjects report mental states in the first person are immune to the error through misidentification relative to the first-person pronoun. A judgment "I am P", where P is a psychological property, is IEM relative to "I" if it cannot be the case that the judgment is mistaken *because* the thinker is wrongly taking the individual she knows to have P to be herself.[130] In other words, it cannot be the case that she knows of *somebody* that she has P, but yet she is wrong that it is *herself* who has P.

The interest of defining this feature of judgments very much concerns which judgments actually have the feature. Judgments are only analysable in terms of their IEM, or their lack thereof, relative to certain grounds. In particular, Shoemaker's point is that psychological self-ascriptions are IEM when made on the grounds of accessing the relevant property introspectively – or, to put it in the terms resorted to in this thesis, when made on the grounds of the subject's *phenomenal awareness* of the psychological property. For instance, if "I am thinking of you" is a judgment of experience – that is, if I get to it on the grounds of my experience of thinking of you –[131] then the following mistake is precluded: it cannot be the case that I know of *some* particular individual that she entertains the relevant thought, but I *mistakenly* think that it is *me* who does.

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[129] For a fairly recent monograph on the topic, see Prosser and Recanati (2012).

[130] Fort the sake of this brief exposition, I am sticking to Shoemaker's formulation of the error through misidentification, and of the immunity thereof, in terms of *knowledge* of properties and their bearers.

[131] Instead of getting to it on the grounds of, say, my therapist's opinions about what I tend to inadvertently think of. If so, then the judgment would not be IEM: it could be the case that my therapist had mislaid her files, and hence that I knew of some person or other that she thinks of you, but mistakenly took this person to be myself.

The moral of this analysis is that there is a special type of epistemic security in the use of "I" that psychological self-ascriptions have in virtue of being judgments of experience. Now, in discussion with Shoemaker, Evans (1982) famously noticed that this sort of epistemic security does not hold only for psychological self-ascriptions. Rather, he pointed out, in normal conditions a similar sort of security obtains for self-ascriptions of *bodily* properties, if they are made *on the grounds of somatosensation*. For instance, if I claim that "My legs are crossed" because I somatosensorily feel them to be crossed,[132] then in principle it will not be the case that I know of *somebody*'s legs that they are crossed, but yet I am wrong about them being *my* legs. If made on somatosensory grounds, this judgment will in principle be IEM relative to the first-person pronoun "my". Again, the moral of the analysis is that there is a special type of epistemic security in the use of the first-person that bodily self-ascriptions typically have in virtue of being judgments of somatosensation.

As far as I see, the fact that, when it comes to the involvement of the first-person in judgments, both judgments of experience and judgments of somatosensation are analysable in terms of IEM is yet another expression of a certain unity between the two. In particular, it is the expression of a structural similarity in the relation between these judgments and their grounds. Shoemaker and Evans' own approach to the phenomenon of IEM will help me articulate my point here. On their view, judgments that are IEM relative to the first-person pronoun are made on grounds that *do not involve an identification component*. Hence the possibility of misidentification is precluded. As Evans puts it, when it comes to these grounds,

> [t]here does not appear to be a gap between the subject's having information (or appearing to have information), in the appropriate way, that the property … is instantiated, and his having information (or appearing to have information) that *he* is *F*; for him to have, or appear to have, the information that the property is instantiated just is for it to appear to him that *he* is *F*. (221)[133]

When it comes to judgments of experience, the proposed explanation for their IEM relative to the first-person pronoun in the subject position has to do with the following putative fact: whenever the subject is *phenomenally aware* of the

[132] Instead of claiming so because I see a pair of crossed legs, in which case the judgment will not be IEM.

[133] Where, for the sake of this brief exposition, F can be read either as a psychological or a physical property.

occurrence of a mental state, she will eo ipso be aware that she herself has the mental state – or, in other words, she will eo ipso be aware of that mental state as her own. In turn, as for judgments of somatosensation, the proposed explanation for their IEM relative to the first-person pronoun in the content position has to do with another putative fact: whenever the subject is *somatosensorily aware* of a certain bodily property, she will eo ipso be aware that she herself has the bodily property – or, in other words, she will eo ipso be aware of the body instantiating the property as her own.[134]

Importantly, the Shoemaker-Evans line of explanation of IEM is built around the endorsement of an intuition central to this thesis: that there is a necessary link between the occurrence of certain mental states and the subject's awareness of the relevant mental states as involving herself. Discussions on the SEO and the SBO, I have claimed, must focus partly on specifying, either phenomenally conscious states generally or somatosensory experiences in particular, in a way that clarifies why they typically involve the subject herself. I captured this idea under the Intuitive Goal and the Intuitive Goal – E. It is thus not news that the descriptive picture of experiences that we offer when engaging in the SEO and the SBO debates, while meeting the Intuitive goals, explains not only why the relevant experiences yield first-person judgments, but also some of the epistemic features of these judgments. These considerations invite a reformulation of our Judgment Formation goals, as follows:

> [*Judgment Formation Goal*]*: any account of the SBO must explain the fact that we self-attribute the felt body for all judgments of somatosensation in which we do so, as well as offer an account of the epistemic features of

[134] Besides these feature of the grounds, the full explanation of the phenomenon of IEM – that is, of the possibility of a *mistake* in the judgments – needs to bring in the metaphysics. Furthermore, taking the metaphysics into account arguably gives us a clue about the distinction between *logical* immunity, usually assumed to be at stake for psychological self-ascriptions, and *de facto* immunity, assumed to be in place in bodily self-ascriptions. As previously suggested, it might well be the case that, given a subject S and an experience E, what it means for E to belong to S is just that S is phenomenally aware of E. Hence, part of the reason why, if S judges E to be her own on phenomenal grounds, she *cannot possibly* be mistaken, might well be the fact that the experiences judged to be her own on these grounds will necessarily be her own. By contrast, we have criteria for assigning a body B to S, other than the fact that S feels B somatosensorily. It is thus conceivable that S feels someone else's body somatosensorily, despite this not being the case in normal conditions. Arguably, part of the reason why, if S judges B to be her own on the grounds of somatosensation, S will (only) *typically* not fail, has to do with the fact that the body that S feels somatosensorily is S's own (only) *typically*.

these judgments, such as the IEM relative to the first-person pronoun by which we express the bodily self-attribution.

[*Judgment Formation Goal – E*]*: any account of the SEO must explain the fact that we self-attribute phenomenally conscious experiences for all judgments of experience in which we do so, as well as offer an account of the epistemic features of these judgments, such as the IEM relative to the first-person pronoun by which we express the psychological self-attribution.

The limited scope of this dissertation didn't recommend this starred formulation of the Judgment Formation goals. Yet, it seems clear to me that these formulations just make explicit an assumption implicit in the very definition of IEM: debates on the SEO and the SBO are explanatorily more fundamental than the debate on psychological and bodily IEM respectively. Indeed, authors trying to explain why, for some psychological and bodily self-ascriptions, the use of the first-person in them is epistemically secure in this respect need to focus on what is special about phenomenal awareness of mental states vis à vis knowing them by testimony; and on what is special about somatosensory awareness of the body vis à vis, for instance, perceiving it exteroceptively.

Relatedly, we know that some empirical cases challenge the mentioned intuition of necessity both for the SEO and the SBO. These cases include thought insertion and somatoparaphrenia respectively. It is worth recalling that both thought insertion and somatoparaphrenia have been treated in the literature as putative challenges to the IEM thesis.[135] We are now in a position to see why: these cases reopen the question whether the grounds for the self-ascriptions involve an identification component or not. Given the explanatory relations indicated, the following appears reasonable: how serious a challenge the empirical cases pose to the IEM of the relevant self-ascriptions will be a function of how we establish, via theories on the SEO and the SBO, that the grounds work, and thus of the capacity of these theories to accommodate the cases.

[135] For psychological IEM and thought insertion, see e.g. Campbell (1999, 2002a), Coliva (2002), Hu (2017), and Palmira (ms). For bodily IEM and somatoparaphrenia, see e.g. Lane and Liang (2009, 2011), Rosenthal (2010), and Kang (2016).

Things being thus, in this dissertation I have discussed and set an agenda for theories that ultimately shed light on core matters about the epistemology of self-consciousness. A bit more ambitiously, I would also like to venture that this thesis hints at a positive explanation of the (de facto) IEM of bodily self-ascriptions. Explicit Reflexivity has it that the grounds for judgments of somatosensation typically involve experience-dependent properties experienced as such. In turn, this relies on the fact that the grounds on which we make judgments of experience yield an awareness of these experiences as our own. On this view, then, the nature of the grounds that ultimately account for bodily IEM is partly determined by the grounds that would ultimately account for psychological IEM. The suggestion is therefore that bodily IEM might have to be explained as a product of psychological IEM. That the judgment of somatosensation "I can feel that my legs are crossed" is (de facto) IEM relative to "my" might have to be explained, at least partly, by the fact that it is a judgment of experience, and therefore IEM relative to "I".

An account of bodily IEM along these lines would fall squarely into my general project, sufficiently motivated in the previous pages: offering a unified account of self-consciousness (in somatosensation). This project takes seriously the idea that, for each of us, the various ways in which we can be self-conscious at a time are just ways of being conscious of various aspects of *a single self* at that time. With this thesis I have hopefully made this project progress.

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