

## Modes of Introspective Access: A Pluralist Approach

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Several contemporary philosophical theories of introspection have been offered, yet each faces a number of difficulties in providing an explanation of the exact nature of introspection. I contrast the inner-sense view that argues for a causal awareness with the acquaintance view that argues for a non-causal or direct awareness. After critically examining the inner-sense and the acquaintance views, I claim that these two views are complementary and not mutually exclusive, and that both perspectives, conceived of as (what I call) *modes of introspective access*, actually broaden the notion of introspection. I then propose a useful distinction between (what I call) *stimuli-induced* introspection—i.e., a receptive process whereby some specific mental states induce introspection—and (what I call) *self-triggered* introspection—i.e., a selective process whereby the individual’s own interest and volition initiates introspection. I argue that that distinction may eliminate the false dichotomy which claims that only one of those types of awareness, either the causal one or the direct one, is conducive to introspection or is defined as introspection.

### 1. Introduction

In its simplest form, introspection is the faculty of probing one’s mental states combined with the ability to form judgments about those states and report them accordingly. For simplicity’s sake, let’s distinguish between a belief that  $p$  (a target of introspection) from a judgment that  $p$  (an upshot or deliverance of introspection).

Minimally, introspection fulfills three conditions: it is directed at one’s mind (first-person); it is about psychological states; namely, mental entities, as opposed to non-mental entities (mental); and it is about one’s current, ongoing, and recent past mental states (occurring). Henceforth, these should be considered *basic conditions* of introspection. These conditions ground the analysis of introspection’s nature. Yet current debates focus on whether these conditions are sufficient or not.

Although there is robust research on introspection, no consensus has yet been reached about its nature nor about the psychological mechanisms that underlie it. According to the most prominent views of introspection, introspection is said to be either (A) a kind of perception defined as an inner-sense or a mechanism of self-detection operating as an internal scanning or monitoring of our mental life—henceforth, “the inner-sense view” (Armstrong 1968/1993; see also Lycan 1996)—or (B) a kind of knowledge by acquaintance operating as direct awareness which can provide justified, non-inferential, judgments of our mental life—henceforth, “the acquaintance view” (Gertler 2011, 2012; see also Chalmers 1999; 2003).<sup>1</sup>

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<sup>1</sup> My discussion is intended to be neutral concerning other accounts that might be considered theories of introspection: a “higher-order state” (Gennaro 2012), a “higher-order perception” (Lycan 1996), a “third-order thought” targeting a current mental state (Rosenthal 2005), or a “meta-awareness” distinct from merely having an experience (Jack & Shallice 2001; Schooler & Schreiber 2004). Theories that have normative implications, such as “rationalist” accounts that involve rational conditions, responsibility, or rational agency for attitudes via practical reasoning (Burge & Peacocke 1996), deliberation or theoretical reasoning (Moran 2001), and “self-shaping,” “self-fulfillment,” or “containment” accounts which claim that introspective judgments shape, create, or contain the target state, or argue that judgments involve pre-existing, current, or immediate future states (Dennett 1991; 1987; Hogan & Kriegel 2007; Chalmers 2003; 2002; Shoemaker 1994).

Advocates of these views consider the previously-mentioned basic conditions insufficient; they believe that in order to define a process as introspection, additional conditions have to be met. Either the process is causally connected to the target mental state, thereby involving a certain mediated awareness (henceforth, *causal*), or it is non-causal and hence directed to the target mental state, thereby involving an immediate awareness (henceforth, *direct*). Notice that these conditions are given as a function of the specific relation that the introspective process bears to its target mental states.

Although the contributions of these views have been significant in shedding light on introspection, they face several theoretical difficulties in providing an explanation of the exact nature of introspection. Advocates of the inner-sense and acquaintance views base their accounts on ostensibly opposing conditions and claim that introspection is exclusively either causal *or* direct. The principal problem is that the definitions of introspection that these views provide are too narrow; they exclude important aspects of the rival position, or mistakenly dismiss them as irrelevant to an understanding of the nature of introspection.

After critically examining the pros and cons of the inner-sense and the acquaintance views, I claim that those views are complementary and not mutually exclusive, and that both perspectives, conceived of as (what I call) two *modes of introspective access*, actually broaden the notion of introspection. This suggestion involves the possibility of accounting for introspection in accordance with its causal role *and* its non-causal role, depending on the aspect or property to be examined. Thus, presenting a non-exclusive alternative view which can accommodate both relations may be more attractive than the previously established (restrictive) position, despite not being the upshot that the inner-sense view and the acquaintance view attempt to provide.

I then propose a distinction between (what I call) *stimuli-induced* introspection—that is, a receptive process whereby some specific mental states induce introspection—and (what I call) *self-triggered* introspection—that is, a selective process whereby the individual’s own interest and volition initiates introspection. I argue that this conceptual distinction may eliminate the false dichotomy which claims that only one of those types of awareness, either the causal one or the direct one, is defined as introspection.

The labels “stimuli-induced” and “self-triggered” have been chosen to avoid some problems that the terms “inner-sense” and “direct” bring about, and to illustrate how the rival positions could be seen as mutually illuminating if we consider modes of introspective access instead of only *one* putative definition of introspection or *the* definition of introspection.

Adopting modes of access promotes a pluralist approach to introspection given that, on this view, introspection is not restricted to a single relation, nor reducible to a unique form of awareness. We can introspectively access the target mental states in different ways; that is, the cognitive processing involved in the introspection of a variety of targets entail different modes. These modes may also vary depending on specific cases. My proposal shows that both approaches to introspection can fruitfully coexist and assist each other. In addition, it offers novel considerations that the leading views leave out—e.g., stimuli-induced introspection exhibits distinct types of outputs: simple judgments, complex judgments, and/or new mental states that can emerge, and self-triggered introspection reveals new mental phenomena, completes certain information, and furnishes the experience.

The rest of this paper has three main sections: §2 points out some of the basics of the inner-sense view and the acquaintance view. §3 spells out the central difficulties of both views. §4 argues for my proposal which, if adopted, would bring about not only the expansion of pluralist accounts

to introspection, but also a supplement to alternative philosophical and scientific theories of introspection that are currently in development.

## 2. The Inner-Sense View and the Acquaintance View

The inner-sense view defines introspection as a kind of perception or a self-detection mechanism operating either as self-scanning or an internal monitoring of our mental life. For a concrete view of this position, Armstrong serves as a representative for the inner-sense view.<sup>2</sup>

Following his own causal theory of the mind (1981), Armstrong (1993) construes introspection as a perception-like mechanism: “a mental event having as its (intentional) object other mental happenings that form part of the same mind.” He defines introspection as “a self-scanning process in the brain” encompassing “a mere flow of information,” which then identifies “mental states with material [or physical] states of the brain” (323-4, 326).

Armstrong maintains the basic conditions of introspection (the first-person, the mental, and the occurring), however, he also appeals to the causal condition. Introspection “is confined to our own minds... [W]hen I acquire by introspection the information that... I am sad now... this information [is] about... my behavior-producing or potentially behavior-producing states.” Introspection provides “information... about the current state of our mind” (325-6) and “is the acquiring of information (or misinformation) about our own current mental states [which]... *qua* mental states [make]... the person apt in their various ways for the production of certain sorts of physical behavior” (333).

To illustrate: a pain such as a headache indicates that the suitable state which has been caused by a stimulus consequently causes a specific behavior. Hence, for the advocate of the inner-sense view, introspection is a process of a system that is determined by its causal relations to other states.

Additionally, introspection grasps mental states as potential causes of behavior (326), since states can externally exhibit or produce physical behavior—e.g., an expression of agony as a result of an excruciating pain. Alternatively, to use my favorite example about an introspective gustatory sensation of a grasshopper taco, an expression of enjoyment as a result of a tasty taco or a manifestation of an intense craving for grasshoppers (I will use this example in this section to illustrate other points of the inner-sense view and the acquaintance view).

In order to account for the causal condition of introspection, Armstrong first distinguishes between a current target state and the introspective awareness of that state. Building on a parallel between perception and introspection, Armstrong then defines introspection as a causal process which involves scanning the ongoing state. He claims that “it is an essential mark of veridical perception that the situation that is perceived is the cause of the perception.” Likewise, he asserts, “where it is veridical, the mental state of affairs that we are aware of *brings about* the [introspective] awareness of it” (329). A scanned state, such as a visual experience, is considered the input of introspection; whereas a self-attribution and its corresponding introspective judgment of that experience is considered the output of introspection, thus giving rise to a causal relation between the introspected target state and the introspective process (1993: 314; 325-6; 329-330; cf. 1981; see also Gertler 133).<sup>3</sup>

<sup>2</sup> For antecedents of the inner-sense view, see Locke (1689/1975) and Kant (1781/1929).

<sup>3</sup> For objections to inner-sense theories, see Shoemaker 1988; 1994; 1996; Nichols & Stich 2003; Byrne 2005; Gertler 2011; Butler 2013.

Like the inner-sense view, the acquaintance view maintains the basic conditions of introspection, but contrary to the inner-sense view, it claims that the relation that introspection bears with its target states is direct rather than causal. For it holds *direct awareness* as a necessary and, together with the basic conditions, sufficient condition of introspection.

The acquaintance view defines introspection as a kind of knowledge by acquaintance or immediate awareness of our own states which can provide us with justified, non-inferential judgments of these states. Gertler (2011) may serve as a representative for the acquaintance view.<sup>4</sup>

Gertler claims that “[b]eing acquainted with a mental state is by definition a direct (non-mediated) relation” (96-7). Introspection comes along without any causal relation to one’s mental life. “Whereas perceptual awareness [... is] at best causally related to [...its] objects, in introspection one confronts a mental state directly, without mediation by a causal process. One is thereby acquainted with the mental state.” (127) That is, we are “directly aware of” an ongoing state irrespective of our “awareness of something *else*”; when “I learn that it’s raining by hearing a radio weather report,” says Gertler, “my awareness of the rain depends on my awareness of the weather report and is therefore indirect” (88).

Being directly aware involves being present in the mind and not by virtue of any mediating object. So, claiming that introspection is direct is on a par with claiming that it is immediately present to one’s mind by virtue of having a mere state. For Gertler, introspection is “metaphysically immediate” just by way of one’s having a state with a given qualitative character—e.g., a sensation such as “*the feel of pain*” (136). The claim that introspection is the direct awareness of having an experience involves one’s having an acquaintance with that experience.

Gertler adds “mental things are the only non-abstract objects we are acquainted with” (91) and exemplifies that “having a certain kind of visual experience... involves...a kind of mental object...

[a sense impression or a] ‘sense datum’... [i.e., an immediate object of your awareness. But] in seeing [a non-mental entity, e.g.] a table before you, you are directly aware of sense data... [not of material objects such as] tables...” (89). Thus, introspection “is supported by a...direct, non-causal, relation of acquaintance to its objects.” Such a relation confers strong justification and epistemic security (94, 87).

When we are introspectively aware of being in a state, we generate a judgment to the effect that a state with a certain qualitative character is present, for example, to judge that a “*pain is present here* or [that] *pain is instantiated in me* [implies self-attributing the sensation]: *I am in pain*” (94). Gertler claims that “[i]nsofar as the metaphysical relation of acquaintance enables one to *directly* grasp... [the particular state and its] property, the resulting judgment will... be... justified” (125).

To elaborate: introspective judgments based on such a relation can achieve strong justification because of both the presence of the state with its character which justifies the judgment that I am in that (painful) state, and my awareness of that state as one of being present—i.e., that I am having an experience or that that experience is occurring to me (cf. 118; see also Chalmers 2003).<sup>5</sup>

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<sup>4</sup> For antecedents of the acquaintance view, see Russell (1912).

<sup>5</sup> The claim that an individual is introspectively aware of a state in virtue of having the introspected state echoes a “primitivist” view: being in a state seems sufficient to put oneself in a position to know that one is in that state (Shoemaker 1996). For Gertler, however, it is not the mere presence of a pain what makes the target of introspection a pain, but the judgment that accompanies the pain as that which is present.

Gertler argues that the direct relation of introspection with its target states also confers epistemic security if the introspective individual can offer “justification” of her ongoing state provided that she pays “attention” to the occurring specific state, if she is “scrupulously cautious” of it, and if she applies the corresponding “conceptualization” of it (111).

To illustrate: if you are aware of an occurring experience—a pleasant sensation you have while tasting a grasshopper taco—you carefully attend to it. If you’re being scrupulously cautious regarding your awareness of that experience with its qualitative character—meaning that delicious spicy flavor and the crunchy texture you feel while biting it—and if you possess the cognitive skills needed to apply conceptual resources upon having that experience according to how that experience appears to you and how you self-attribute the character of the experience (i.e., as “pleasant,” “tasty” and so on), then your introspective judgment about such an experience is strongly justified and is likely to be epistemically secure.<sup>6</sup>

The basics of both views have given us insight into additional conditions of introspection: There are those who claim that introspection is defined as an inner-sense mechanism. If introspection is defined as inner-sense, then it is causal—i.e., the relation that the introspective awareness bears to its target state is mediated. On the other hand, there are those who claim that introspection is defined as kind of acquaintance. If introspection is defined as an acquaintance, then it is non-causal but direct—i.e., the introspective awareness is partly constituted by the mental state it targets.<sup>7</sup>

### 3. Central Difficulties

With these prominent accounts broadly presented, we are now in a position to identify some difficulties for those views. Conceptual confusions concern the terms “inner-sense” and “direct.” For one thing, the definitions of introspection that both the inner-sense view and the acquaintance view offer are too narrow. So, although these competing views provide plausible accounts of introspection, I argue that any suitable philosophical account of introspection must incorporate some aspects of both views. I suggest that,

- (a) The senses of the terms “inner-sense” and “direct awareness” used by these views must be clarified. These clarifications will allow us to see that the views can be *complementary* and *not mutually exclusive*, as both causal *and* non-causal relations can serve to consider two perspectives of introspection depending on the *aspect* or *property* of introspection to be examined (§3.1–§3.4).
- (b) Rather than insisting that introspection strictly bears either a causal relation *or* a direct relation with its objects—in other words, that introspective awareness is exclusively either causal or direct—it should be agreed that the notion of introspection can incorporate *refined aspects* or *properties* of both views. A conceptual distinction between a *stimuli-induced* introspection and a *self-triggered* introspection can bridge some of the gaps between the inner-sense and the acquaintance views (§4–§4.3).

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<sup>6</sup> For objections to acquaintance theories, see Horgan & Kriegel 2007; Stalnaker 2008.

<sup>7</sup> For an assessment of both the inner-sense and the acquaintance views with respect to their epistemic merits, see Gertler 2011; 2012. My discussion is intended to be neutral concerning the superiority of one view over another.

### 3.1. “Inner-Sense”

In debates on the mind the term “inner-sense” has been problematic. Folk-psychology typically equates “inner-sense” with “internal eye/observation,” thus defining introspection. Given the inadequate analogy of a perception-like mechanism with introspection, this association has generated elementary confusions. In fact, philosophers and neuroscientists agree that no “sensory organ that takes brain events and/or mental states themselves as input has been identified” and “there is simply no empirical psychological basis to support the idea of a real tangible, inner *perceptual* faculty in human organism” that could be identified with introspection (Butler 2013: 17; cf. Shoemaker 1994). The inner-sense view’s advocate also claims that no sensory organ is assigned for introspection: “when we are aware of happenings in our own minds, there is nothing that we are aware *with*” (Armstrong 1993: 325).

If it is agreed that no sensory organ is required for introspection, but the claim that introspection is an inner-sense still lingers, it is reasonable to inquire whether introspection then possesses a derivable structural characteristic with a perception-like mechanism—and, if so, what it might be? If introspection were an inner-sense, it would be an activity we automatically undertake in the same way we apprehend physical objects of our environment. But introspection does not occur all the time or even regularly, as mere perception does.

Some might still wonder whether the understanding of introspection as analogous to perception may refer to their objects of apprehension. However, although both introspection and perception are considered sources of non-inferential knowledge—they do not require specific premises about ongoing mental states or rules of inference—there are important differences in terms of their objects of apprehension: the objects of introspection are psychological states as opposed to physical objects (or properties of the physical objects), which are the typical contents of perception. Introspection entails the mind’s awareness of itself.

The claim that the awareness of different entities entails differences of certain sorts seems uncontroversial: mental entities differ in fundamental ways from non-mental entities. For example, psychological states “do not persist through time as single, isolatable objects of perception... and other ordinary objects... [so, it is] difficult... to say when and where they begin and end, and to say how they are separable from and/or related to, one another on the basis of their observable characteristics” (Butler 2013: 240). Philosophers generally agree that “introspection is the mind’s apprehension of itself”; whereas perception is “the apprehension, by the mind, of [a] thing other than itself” (Mandik 2010: 87). The advocate of the inner-sense view also holds that introspection is information or misinformation about the current state of our mind (§2).

This mere condition distinguishes it from perception: that is, perception consists in a relation between a mental state and a non-mental entity; whereas introspection consists in a relation between, for example, a perceptual state and the introspective judgment that accompanies it (Dretske 1999; Stoljar 2012).

Some philosophers seem to treat that analogy by appealing to the same mechanism wherein introspection and perception are to share in the same cognitive resources to access their objects, or use the same resources that explain, one way or another, first-order experiences (Prinz 2004). Although this claim is not uncontroversial, it does not follow that because both perception and introspection entail certain types of awareness, these processes use the same cognitive resources for apprehending their objects—brain distinctions have been found when individuals undertake introspective awareness versus perceptual awareness, and recent findings have identified the neural correlates of the processes that play a role in introspection (Fleming 2010; Fleming & Frith 2014). Neither does it follow that these processes work in a similar way irrespective of differences

in terms of their objects. Nor does it follow that introspection is usefully identified as a form of perception or quasi-perception (Shoemaker 1963).

In the absence of a sensory organ and a similarity between objects of apprehension within which we could identify introspection with a perception-like mechanism, it is reasonable to claim that introspection construed as “inner-sense” does not entail a distinctive phenomenology, nor is there “something that it is like” to introspect. Namely, it is unlikely that the sense of “awareness” involved in introspection is non-cognitive or that it entails phenomenal properties. While there is “something that it is like” to undergo a perceptual experience of an object with its properties, no phenomenology or appearance of objects with qualitative character seems to be part of introspection.

The typical example of the red tomato illustrates the point. While there is something it is like to see an object such as a tomato, since a distinctive phenomenology of redness and roundness is at stake—i.e., the properties that my visual experience represent the object as having—no distinctive phenomenology is involved in introspectively judging regarding my visual state that tomatoes are red and round (Gertler 2011: 140). Being introspectively aware of a state does not seem to entail experiencing qualities or a “what it’s like.”

Some philosophers agree that we are not introspectively aware of “beliefs and thoughts by having sensations or quasi-sense-experiences of them” (Shoemaker 1996: 207). Further, even though imagery may be at issue while introspecting—e.g., while some “thoughts are associated with sensory images of what they represent,” others are accompanied by “subvocal speech”—, “there is no distinctive feel of introspection” (Prinz 2004: 51-2).

Despite the fact that introspection may target certain conscious states—entailing phenomenal character or an intrinsic qualitative property such as a pleasant sensation while tasting a taco—no phenomenal constituent is typical of introspection. Simply put: when by introspection you judge that tasting a taco is a pleasant sensation, the phenomenal character that that experience bears belongs to the sensation itself, not to introspection. So, it is relevant to distinguish introspective target states having certain phenomenology—either type-states such as gustatory sensations or token-states such as tasty or spicy sensations—from the introspective process bearing a certain phenomenology.<sup>8</sup>

Therefore, introspection is merely intentional, and it uses mental states as targets. To claim that some targets of introspection entail phenomenal character does not mean that the qualitative aspect is a constituent of introspection. While such a character involves the state with a content available to be introspected, it is only through introspection that a judgment of that very experience can apply to both the “tasty” and the “delicious” predicates for its character and the self-attribution of the state is possible.

The obvious conclusion is that introspection does not exhibit the hallmarks of a perception-like mechanism. Introspection is not achieved through a sensory organ, the type of awareness of mental entities differs from apprehending non-mental entities, and no distinctive phenomenology is involved. To take the sense of the term “inner sense” at face value leads to misconceptions, and to regard introspection as an inner-sense in virtue of the mentioned features is untenable. Yet I will set aside these concerns for the moment, as I want to focus on the inner sense theorist’s claim that introspection can be defined in causal terms.

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<sup>8</sup> If introspection were to involve a distinctive phenomenology, as Gertler maintains, introspection would not be definable in physical terms, which goes against the goal of the inner-sense view (2011: 76, 140).

### 3.2. The Causal Condition

The relevant point now is to determine whether introspection and perception are structurally similar. Perception is ordinarily said to be a causal process in that to perceive  $p$  is to be causally affected by  $p$ . As you are about to eat a taco, you see a grasshopper on it—leave alone whether the grasshopper is already fried or is still jumping on the taco. There is a visual perceptual state ( $s$ ) with a content ( $p$ ) and a distinctive phenomenology ( $ph$ )—that is, you are seeing something red having the shape of an insect with enlarged hind legs. Assuming that  $s$  is veridical, it accurately represents  $p$ —i.e., that bug on your meal. Since there is a grasshopper on your taco, it contributes to the causing of your having such a visual perceptual state. That is, your perceptual state of that object depends on a certain causal relation, or your state being causally connected to that specific object.

Similarly, the inner-sense view's advocate contends that to introspect a state is to be causally affected by the state. Introspective judgments are caused by occurrent states yielding self-attributions of those states. If we consider both that introspective judgments are ordinarily defined as statements about one's own current mental life, and that in self-attributing one makes a judgment about one's mental life, it is natural to presume that, following the last example, introspective awareness of a visual state of a grasshopper on your taco would bring about a judgment based on that state with its distinctive phenomenology. Specifically, there would be a self-attribution that such a visual experience is happening to you and/or the generation of an introspective judgment that "I am seeing a grasshopper in my taco."<sup>9</sup>

In detail, introspective awareness would be caused by the state it represents with its distinctive  $ph$  and respective to  $p$ , considering that the content of your visual state *is* a grasshopper on a taco instead of a maguey worm in a drink. According to the inner-sense view, additional outputs may also play a role. The phenomenal character of your introspected visual experience can figure in the causal network by manifesting external behavior such as bodily sensations—e.g., disgust at eating insects or a gag reflex. Notice that it may be the case that those responses can induce further introspection, generate different judgments that accompany the initial experience, or engage in subsequent experiences. It may be the case that a cluster of states such as fear or a belief about being poisoned by eating live or dead bugs can arise as well (§4.1).

This way, then, the relation that introspection bears to its target state is causal. The advocate of the inner-sense view claims that to stand in the relevant causal relation to a target perceptual state is a necessary and sufficient condition of introspection when the basic conditions obtain. So, if states cause introspective awareness, and if introspection is causally mediated in a manner similar to that in which physical objects cause perception, it would follow that introspection is a perception-like mechanism. However, we cannot take this at face value neither, since not only are serious differences in play, but, most importantly, a crucial problem occurs.

By construing introspection in these terms, mental states correlate to neural states in terms of their operation, their connections between systems according to their causal networks of inputs and outputs, or, more specifically, their exertions of influence between their sensory inputs and behavioral outputs. If the inner-sense view defines introspection in those terms, and if it incorporates the mental to the physical, introspection would be considered a physical process, and, therefore, the inner-sense view would face the problem of reductionism. That is, broadly construed, the position that reduces psychological theories to physical/neural theories by identifying the

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<sup>9</sup> For objections concerning assigning phenomenal character to states, see Schwitzgebel 2008: 263.



objects, properties, relations or entities of the former with the objects, properties, relations or entities of the latter. A version of reductionism specific to this discussion is that introspection is identified to perception or a perception-like mechanism and/or its properties.<sup>10</sup>

If introspective awareness is reduced to a perception-like mechanism, or if it is on a par with perceptual awareness, no epistemic distinctiveness between these types of awareness holds. That is, the *peculiarity* of introspection would be undermined. *Peculiarity* is the epistemic thesis that introspection is a distinctive type of awareness or way of knowing about our minds—i.e., mind’s awareness of itself. And there is a sharp contrast between the way in which we know or are aware of our minds and other types of awareness and ways of knowing about the world.<sup>11</sup> In addition, you and I are not in a position both to be aware of our mental states and to be aware of the objects of our environment in the same way and/or under the same conditions.<sup>12</sup> This is also called “the difference thesis” in the contemporary philosophical literature (Smithies & Stoljar 2012: 4).

The question now is whether there is a way in which we might still preserve the causal condition without facing all the difficulties of the inner-sense view. Sections §3.4–§4 show a possibility.

### 3.3. “Direct”

Although the acquaintance view lends itself to explain the nature of introspection, a difficulty arises with the epistemic sense of the term “direct.” This difficulty concerns the reference to conceptualization and background-beliefs.

For the acquaintance view, when you are introspectively aware of an experience, the experience does not causally engender your introspection. That is, nothing mediates between your introspective awareness of the state and the state itself, or there is no metaphysical gap between the state that is being grasped through introspection and the state itself—i.e., your pain sensation. The expression “nothing mediates” means that introspection does not have to do with an observation of behavior from which you can infer that you are in a certain state. You do not need to infer the presence of a state from evidence.<sup>13</sup> In introspecting the sensation that you are having right now, you are able to grasp its basic nature directly. Even if we grant that the non-causal condition obtains, the acquaintance view still needs to explain whether the role that

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<sup>10</sup> Whether the inner-sense view entails a “type-physicalism” concerning qualitative properties as identical with neural properties goes beyond the present purview.

<sup>11</sup> It is worth mentioning that “peculiarity” does not imply superiority—i.e., the claim that introspection bears an epistemic status superior to that of perception or other cognitive mechanisms. Additionally, claiming that introspection is peculiar is not to suppose that it is the unique kind of awareness or way of learning about our minds.

<sup>12</sup> Although “peculiarity” is sometimes construed as a sort of “privilege” in the philosophical literature—i.e., enjoying either a first-person authority about our mental lives or a range of attributions provided by a first-person’s method—I distinguish “peculiarity” from “privilege.” Privileged access refers to our “epistemic position *vis-à-vis* propositions ascribing current mental states to [ourselves]... [This access] is [or may be] favorable [or authoritative] in a way no one else’s position is” (Alston, 1971: 230).

<sup>13</sup> The notion of “transparency” may be in play here. In its simplest form, when I make a judgment that *p*, my judgment of *p* is transparent if *p* is happening in my mind; and if *p* is happening in my mind, I must have a true belief about *p*. Namely, “if [I have] a mental state, then [I have] knowledge of that mental state, or at least [have] a belief to the effect that one has that mental state” (Mandik, 2010: 125). Alternatively, if I have a mental state that *p*, and if I possess the right cognitive capacities such as intelligence, rationality, and conceptualization, then I know that I have *p*, and I am disposed to say, “I judge that *p*”—so, *p* is “self-intimating” (Shoemaker 1995; 1997). Space prevents us from discussion.

conceptualization has while we are introspectively judging an experience would not be considered a sort of mediation. That is, the acquaintance view must show how introspection, despite its being direct and immediate, still grasps the state *as* a state of a certain kind.

It is likely that conceptualization imposes mediation between the mental state and the introspective judgment. Although Gertler (2011) acknowledges this difficulty, she argues that conceptualization works by our distinguishing and classifying a state as of a particular kind “by its epistemic appearance”—e.g., you can distinguish a pinching sensation from a tickling sensation according “to how your experience feels to you—the phenomenal quality it epistemically appears to exhibit... to introspection.” That is, you conceptualize the property of your sensation or the only discernible aspects of its phenomenology “by *using* your grasp” of how the experience seems to you (114-5).

How (direct) introspection of an occurring state works depends on some qualifications of access. That is, it depends on whether you are paying attention to the state in question and are exercising caution in grasping its feeling.<sup>14</sup> In turn, that attention/exercising move depends on the way the state is appearing to you. In being directly aware of the state, Gertler will claim that “your sensation epistemically seems to involve a [particular] quality” and “no causal process mediating between the [phenomenal] reality and its epistemic appearance” is in play (95; 112-5; 119). When you are introspectively aware of a conscious state, “there is no appearance/reality gap” (Hill 1991: 127); so, conceptualization is not mediation.

As for background-beliefs, one might inquire whether these would not mediate the introspective judgment and self-attributions of mental states, since introspective judgments may contain background-beliefs that causally contribute to the formation of judgments—e.g., you can reach an introspective judgment about making your mouth water by seeing a grasshopper on your taco. Clearly, part of that judgment is about the distinctive phenomenology corresponding to the occurring state.

Some philosophers claim that formation of judgments can be influenced by background-beliefs as well as by proprioception, expectations (Schwitzgebel 2012), or motivations (Nisbett & Wilson 1977). However, Gertler (2012) asserts that even if background-beliefs can causally contribute to the formation of judgments, these do not interfere with the previously-mentioned justification of introspective judgments—this is given by a direct awareness of occurring states. That is, our justification is “exclusively determined by [i] how things seem [i.e., how we represent our own mental state according to how it feels to us, [ii] how we organize the current experience by conceptualizing the occurring state with its specific properties—and not of something else or of anything beyond our mind] and [iii] by how our judgment of [the state] being present [or as it is happening in the mind] corresponds to the presence of the state. Success in this endeavor will neutralize the influence of background beliefs” (110).<sup>15</sup>

Even if we grant that background beliefs can influence judgments, cognitive scientists have argued that these are not always corrupting sources or distractors from the occurring introspected

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<sup>14</sup> It may also depend on some epistemic conditions of introspective access: (a) judging on the base of context, (b) no generalizing target states, (c) having authority of error, and (d) possessing the right cognitive capacities. Space prevents us from discussing these conditions in detail.

<sup>15</sup> Although introspective judgments about mental states can be considered *true* according to some philosophical views, what is at stake in the current discussion is neither the truth value of introspective judgments nor the endorsement of ideal or perfect forms of privilege access to our mental states. For what is considered “true” comes only as a result “of a reliable process, causally linked to its truth maker—namely the presence of the self-attributed [mental state]” (Smithies & Stoljar, 2012: 12-3). That is not relevant here. Also, direct awareness of mental states does not involve infallibility of introspection.

target state. Additionally, it is possible to reduce the amount of variability from the inputs and to eliminate noise by making the experimental procedure simple; that is, simplifying tasks, reducing response time patterns, and guiding the experimental participant to introspect specific target states and attend to her ongoing experiences (Reyes & Sackur 2014).

### 3.4. An Alternative View

I argue for the possibility that the inner-sense view and the acquaintance view complement, and do not exclude, each other. In my view, a non-exclusive alternative view which can accommodate different relations is more attractive than the previously established view.

Even if we grant that introspection bears a causal relation to its target states, there is no reason to maintain that the relation that introspection bears to its objects is identical to the relation that perception bears to its object. Although the inner-sense view retains a certain appeal in that introspective judgments and their states can be causally connected, it is likely that such a causal relation is not necessary. Alternatively, such a causal connection might not be the unique way to engender introspective judgments or to initiate introspective awareness; it seems to leave out other explanations. But the other way around seems to apply, too. Even if the acquaintance view is a promising view of introspection, since “direct” cannot capture all the conditions that introspection requires, it seems to be insufficient in providing a full definition of introspection. So causal and direct comprise either contingent conditions or fall short as independent definitions of introspection.

Moreover, if introspection *is* causal, then the direct connection is neither a necessary nor sufficient condition for introspection. Even if the direct connection were only to minimally contribute to provide a *metaphysical* explanation of introspection, then we can be almost certain that this account would be useful in shedding light upon the nature of introspection or *some* aspects of it.

Similarly, if introspection *is* direct, then the causal connection is neither a necessary nor sufficient condition for introspection. Even if the causal connection were to only minimally contribute to providing a *physical* explanation of introspection, then we can be almost certain that this account would also be useful in shedding light upon the nature of introspection or *some* aspects of it.

The causal condition is by no means as negligible in introspection as the advocate of the acquaintance view supposes. On the contrary, it explains that introspection can work from a naturalist perspective. Nonetheless, introspection cannot be reduced to this approach, since there is yet another approach that is important to preserve. So, without involving any conflict, we can explain how introspection works in metaphysical terms as an immediate awareness that captures those aspects which resist physical reduction, such as the first-person perspective, the so-called presence of a state, or the putative way the mental state epistemically appears to the individual and its connection to phenomenal reality.

Alternatively, we can explain how introspection works according to neural properties or how some of those properties can be described using non-phenomenal facts. Without involving any conflict, we can also account for the phenomenal character of the properties of introspective states. In short, introspection can be explained in physical terms and can also be explained in metaphysical terms, with some limits of the former being fulfilled by the latter and vice versa. This suggestion involves the possibility of accounting for introspection in accordance with its causal role and its non-causal role, depending on the aspect or property to be examined.

Some remarks on my general approach to introspection may be relevant. In my view, introspection does not presuppose the possession of knowledge of our mental states—we are not always in a position to know when we are in a given mental state, but we can be introspectively aware of being in such a state or self-probing of what we are processing while we access the state.

I distinguish “introspection” from terms like “knowledge” and “self-knowledge,” even though some epistemic tools with respect to the problem of knowledge and justification can be adapted to analyze some aspects of introspection. For example, we might distinguish the use of “factive” mental states—or when I succeed in introspecting states that can lead to knowledge of them—from the use of “non-factive” mental states—or when I experience those states that occur even though my state, say, my belief that  $p$ , is not true, that is, when I can be introspectively aware of this state without knowing it.

Additionally, I distinguish “self-knowledge” which serves as the teleological function of introspection from “introspection” which serves as a cognitive process that may eventually lead us to get a certain knowledge of our mind or self-knowledge. Since the core of my approach to introspection is independent of the problem of knowledge or self-knowledge as such, I remain neutral on those theories of knowledge or theories of justification which are well-known as “reliabilism”—namely, the epistemic position that holds the truth-conduciveness of a belief-forming process or method.

#### 4. Modes of Introspective Access

If the false dichotomy between the inner-sense view and the acquaintance view is removed, then, a qualified notion of introspection that accords with different modes of access can be appreciated. The two modes of access hinge upon stimuli-induced introspection and self-triggered introspection. This theoretical alternative naturally invites a different assessment. Notice that the modes of access hold *ceteris paribus* assumptions; we can presume that the basic conditions of introspection obtain. But no further aspect of a similarity between the leading view that has not been examined in this paper is intended.

This taxonomy usefully captures modes of access and some of its interactions among mental phenomena, thus suggesting a pluralist approach. The pluralist approach argues that introspection is not restricted to a single relation, nor reducible to a unique way of awareness. Rather, introspection is dependent on various mechanisms or modes of access. However, in the current introspective event itself these modes of access are close to being indistinguishable; that is, how an individual can discern introspectively whether her mode of access is stimuli-induced or self-triggered is a subject of a future study. Also, whether both modes of introspective access can occur together regarding the same mental phenomena is a subject that remains to be worked out in future research.

Some remarks on this pluralist approach may be relevant. In its simplest form, pluralism about introspection is the thesis that introspection involves different systems, or works with several cognitive processes such as attention, memory, and inference at some level or degree.

Pluralism arises in opposition to those views that claims that introspection proceeds simply and cognitively at a low-level without involving additional mechanisms or systems—i.e., “the single-process model.” This model includes some versions of the inner-sense view that claim that introspection operates either as a self-scanning process, or a simple monitoring mechanism of mental states (Armstrong 1968/1993; Nichols 2001), and those that claim that introspection operates as a “single mental faculty” for which interpretive and sensory access is implicit in all

mental attributions to ourselves or to other individuals—the so-called “mindreading” view (Carruthers 2009, 2011).

On the contrary, some advocates of “the pluralist-process model” claim that introspection is a “heterogeneous collection” of experiences and cognitive processes (Butler 2013), or an “overlapping of indistinguishable mechanisms” (Schwitzgebel 2012) whereby additional cognitive resources, such as “captioning, reintegration, and intensification” (Prinz 2004) play an underlying role. The debate identifies them, respectively, as “the heterogenous” view, “the spaghetti” view, and “the fractionation” view.

My approach agrees with the pluralist-process model in that introspection works on many different kinds of mental states, and it works in coordination with several cognitive processes and resources. How exactly certain cognitive processes play a role in introspection is a different question that I examine in another paper.<sup>16</sup> Rather than offering a view on pluralism of cognitive processes, the approach that I present here offers a pluralism of modes of access which enables the elaboration of a new account of what the ways are in which we are aware of our mental life and are able to arrive at self-attributions or introspective judgments. My proposal shows that we can introspectively access the target mental states in different ways; that is, the cognitive processing involved in the introspection of a variety of targets entail different modes. These modes may also vary depending on specific cases.

As far as I know, no one yet has shown the applicability of a pluralist approach to modes of access. The well-known pluralist-process model is a response to the inner-sense view considered as a single-process model but does not analyze how other theories, such as the acquaintance view would play a role in the debate. Moreover, specific details about how modes of introspective access work cannot be trivially inferred from the inner-sense view or the acquaintance view. My pluralist approach offers specific proposals about modes of access and its merits. These extend well beyond what is presented in work on inner-sense and acquaintance views, and some of my proposals could be adapted to fit with other versions of the pluralist model as well.

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<sup>16</sup> Goldman (2006) claims that introspection always works within processes such as perception and attention (aka., the “introspective self-attribution” view). Since the introspective self-attribution view claims that the introspective process is capable of performing some information-processing operations that are analogous to perception or to attention, this view reduces introspection to other cognitive processes or mechanisms. While my own view of introspection accepts that introspection involves several cognitive processes, I maintain that the operation of introspection remains distinct from the operation of other processes such as perception or attention, and thus cannot be reducible to them. Contemporary theories have provided several responses against various reductionist programs. Examining these responses is far beyond the scope of this project. Although introspection could be conceived of as a form of attention, my discussion remains neutral on this question (Montemayor & Haladjian 2015). Whether attention plays an underlying role in introspection, and whether introspection and attention operate in a similar way or not, go beyond the present concern. Additionally, although there are parallels in the operation of introspection and attention—e.g., both seem to involve the processing and organizing of information from mental states and then directing it to particular contents—this requires a different discussion that I cannot tackle in the paper. Moreover, introspection and attention are different processes. Introspection is not directed toward external stimuli, but to its target mental states only. Most importantly, introspection entails the mind’s awareness of itself; it involves both a mental state and a process. It is not my intention to connect “stimuli-induced” introspection to “exogenous attention” (or automatic control drawn towards the stimulus) and “self-triggered” introspection to “endogenous attention” (or voluntarily control directed towards the stimulus). My taxonomy here is independent of those specific applications to attention. This analysis on modes of introspective access neither tackles aspects of attention, nor does it involve those attentional shifts. For a discussion on the role of attention in introspection, see XX.

#### 4.1. Stimuli-Induced Introspection

Recall that introspection is a way to be aware of our own current and recent mental states, and to self-attribute those states. In terms of its scope, I take introspection as the span of information-processing that extends from having a mental state, such as having a pain sensation (the target of introspection) through to its passing from the self-attribution of the state “I am feeling a pain” and then on to its deriving from it a corresponding judgment (that “I am in a state that hurts”) which can be verbally reported or not.<sup>17</sup>

A mental state induces the process of introspection and brings about an introspective judgment— “judgment,” for short. For simplicity’s sake, let’s focus on the judgment as induced by a state to explain the point, and take the first mode of access in its simplest form:

*Stimuli-induced introspection* (SII): a receptive process whereby a specific mental state (mental stimulus) can spontaneously or automatically cause introspective awareness.

Consider this introspective awareness as some kind of involuntary process. Notice that the stimulus is not caused or induced by an external source of the physical world, as happens with perception, but is a mental-state-induced introspection. However, an introspective judgment can be caused by a mental stimulus connected to an object of the environment—i.e., a sensation as result of a relation to a non-mental entity—or by a combination of mental stimuli. Set aside that sometimes a stimulus is so strong or threatening that it prevents us from introspecting the state—e.g., an intolerable pain.

Stimuli-induced introspection shows that the character of the mental stimulus induces different introspective events and exhibits distinct types of outputs: a simple judgment, a complex judgment, and/or new mental states that can emerge. Introspection does not necessary respond in accordance with the input; the output might be a different judgment—e.g., an extreme or exaggerated judgment, an opposite judgment to the expected one—or simultaneous mental states. Against this are typical outputs, such as: when you hit me, I respond with pain, I shout or express anger, I hit you back or run away.

Let’s see first a couple of examples of simple outputs:

A severe pain in your toe induces your introspective awareness of that state and you judge your experience as a stabbing sensation: “I am feeling a stabbing sensation”—after ruling out a throbbing sensation (call it introspective awareness induced by a pain sensation).

Introspection here is induced by an initial mental state bringing about a simple judgment.

A severe pain in your toe induces (a new output) an emotional state (since I am roaring with laughter as I stomp on you) and this state induces your introspective awareness to the effect that you judge your experience as fury: “I am furious, I hate you!” (call it introspective awareness induced by an emotional response).

Introspection here is induced by a new mental state bringing about a simple judgment.

Now, let’s see a couple of examples of complex outputs:

A severe pain in your toe induces your introspective awareness of that state, which brings about a new state: a visual state of your swollen toe. This state may also induce simultaneous

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<sup>17</sup> Whether reports can come in levels and degrees instead of yes or no responses, and whether the introspective individual executes self-attributions exactly when the experiences occur or not, go beyond the present concern.

mental imagery of a fracture in a phalange, which itself leads to a judgment to the effect that your toe may need to get a surgery: “I feel so bad that I’ll end up at the hospital” (call it introspective awareness induced by a visual state and/or mental imagery).

Introspection here is induced by an initial mental state, bringing about a complex output: a new state and/or simultaneous states and a different judgment (to the expected judgment) concerning the initial mental stimulus. Notice that introspective judgment of visually perceiving your toe can also be displaced towards a different state: either a deep concern about paying a medical consultation to get an examination of your toe, or a real desire that I (the tormentor) disappear instantly.

A desire to take revenge while you are suffering from that severe pain induces your introspective awareness of that state to the effect that it brings about a judgment of an odd emotion: “Really? Do I feel this? “Well, I don’t care, let’s party” (call it introspective awareness induced by a desire).

Introspection here is induced by a different mental state bringing about a complex output: a different judgment (to the expected judgment) concerning the initial mental stimulus. Notice that introspective judgment of your initial emotion has been displaced towards a different state: either as a mechanism of defense or as a result of further introspection about the initial stimulus.

Additional refinements help to clarify how SII works. Notice that the character of the mental stimulus induces different introspective events and exhibits distinct types of judgments. Further, the introspecting individual might be able to find out both what is bringing about the connection between a mental state and its introspective judgment and the additional mental stimuli serving as causes of introspection, beyond the ordinary representations of mental states (§4.2).

However, if we grant, with the inner-sense view, that introspection does not have to tell us about the causal aspect of the experience or does not necessarily tell us about the causal source of your state, but rather instead gives us enough information about mental phenomenon, and if we grant, with the acquaintance view, that introspection tells us how an experience appears to us, it would be reasonable to maintain SII as a mode of introspective access. The relevant point is that you are ensured that your being able to react to a/or induced by a mental state then allows you to elaborate a judgment on the target state.

We may wonder whether certain questions can also be considered stimuli of introspection. Although questions seem to be stimuli of a different nature, one might ask if being queried by someone to introspect when a stimulus attention appears qualifies as SII, since it is the goal of following instructions not the stimulus itself that drives the introspection.

Consider a case in experimental psychology in which you have been asked by an experimenter to follow her clear instructions in order that you be able to report precisely what you are feeling when a stimulus *s* is being presented to you. The experimenter knows—before you do—what *s* is, and what your possible experiences and reactions might be. She will evaluate your reports depending on facts, circumstances, and the specific situation, *s*, the reception of *s*, and the additional information she possesses—and she will use your reports as useful scientific evidence.

When a specific task motivates an introspective event, or when the task entails direction or a guide to follow instructions to perform something, or when the context and/or the situation is specific to the extent that the experimenter is waiting for a response from you, the case can be plausibly considered SII. Even if the event bears a certain pressure to perform the task within a frame of time and to respond the question at issue in a specific moment, you are aware of the

expectations—i.e., the experimenter is waiting for your response, and she is following a methodology to deal with the information in the form of introspective reports about your experience. Therefore, the case can be plausibly considered SII.

The question that arises, however, is whether there is a difference in the mode of access when no third-person is guiding or supervising the progress of your introspection, and when no expectations and pressures are in play. Be that as it may, let's recall that the point at stake is that when there is a certain stimulus that induces introspection, a specific state's being particularly intense or a protruding process which pops-up is different from when there is an intention to undertake an introspective event.

Even being aware of certain ongoing states, in the absence of any causal connection between those states and introspection, means that there is room for a non-causally mediated introspection; since there is not always the case that introspection is induced by a typical mental stimulus, it is convenient to examine self-triggered introspection as another plausible mode of access.

#### **4.2. Self-Triggered Introspection**

Consider a different scenario: as always, you are rushing. You must leave right away, but you prefer to stop for a minute to inquire as to what your current mental state is. Not only do you choose to start an introspective event or to initiate a self-probing of your mental life, this introspective awareness will also select the target mental state. So, self-triggered introspection actively selects a state from a cluster of occurring states or a variety of mental phenomena happening to you, or as they appear in your mind or stream of consciousness.

Consider the previous examples as happening to you right now: you are being selective in the introspection of your current pain sensation, in your emotional response to it, in your visual state of your swollen toe, or in your desire to take revenge. Alternatively, you can choose to probe the state that such a desire may hide or displace—e.g., a feeling of panic for an unavoidable situation or an association with a trauma. Let's take now the second mode of access in its simplest form:

*Self-triggered introspection* (STI): a selective process whereby the individual's own interests or volitions initiate introspective awareness.

- (a) While being in the elevator, you initiate introspection of a mental state. (No doubt several states are occurring in your mind—some are passing, others have just recently passed, and so on.) You are in a good mood today for whatever reason; you feel motivated to smile and to make eye contact to share that positive state. But you begin to worry that everybody in the elevator seems to be an automaton; they are avoiding eye contact with you at all costs. You think they might be thinking that cheerfulness is contagious (and so you smile to yourself). But in trying to be comprehensive, you also believe that these people are so busy and overwhelmed with hundreds of their “to-do lists.” You self-probe the current state and inquire on its character, for example, what the specific qualitative character of feeling good is, and what the contents of such a feeling would be (call it the elevator's feeling).

Although certain mental phenomena or aspects of your phenomenology are set aside because of unawareness, defense mechanisms, or repression—e.g., a desire of yelling to confront the automata—some of them might be accessed by further introspection.



In contrast with SII, STI is a mode of access guided by will and effort, and it can be either inhibited or encouraged at will. This mode of access is not caused by a stimulus, that is, no inputs or mental stimulus engenders the initial introspective event. Instead, out of either curiosity or concern, it is activated or triggered by the introspective individual's effort, genuine interest or intention to self-probe a current state though its quality.

Additional refinements help to clarify how STI works. This mode of access comprises two main interacting functions: a voluntary/intentional control one and a selection one. STI is accompanied by a volition/an intention to undertake a search, or by simple inquisitiveness as one self-probes one's mental life for the sake of investigating it. Also, it is construed as an exploratory action meant to obtain information about one's mind, which can be in the form of a mere desire to look over and/or to learn about one's own mental features. By self-probing a certain state here and now the introspective individual sets out to find out its character and contents and to distinguish among states.

The introspective individual, then, not only self-probes her mental life voluntarily, but she also points out and selects the state to be introspected. To be clear, I do not refer here to her having any voluntary control over the state or her capacity to inhibit the process at issue, but I do refer to her being able to introspect what is there to be detected. So in this sense, there is an active role being undertaken by the individual in this particular mode of access. That is, STI is actively selecting among different states depending on what aspects of her phenomenology the individual attempts to find out—e.g., you may be more interested in mental states that manifest a richer stock of qualities or in those states that interact with others.

In short, voluntary/intentional control ends up deciding between the states and the execution of introspection, and selection ends up determining the classification of the target mental state with its specific character to be introspected. Whether these functions start in getting direct control of the will, planning in the implementation of steps according to current contexts, moving on in gathering certain information according to theoretical distinctions, or devoting important load/charge energy, among other things, all are part of a different discussion that cannot be addressed here.

### 4.3. Remarks and Possible Objections

One might add that STI appears to be dependent on volition/intention and so require a causal relation, too, since the individual's own interest can also cause introspection. It seems that STI is cognitively triggered by the volition/intention to access states, and it would be wrong to presume the absence of a causal network between states and introspection.

However, although in both cases the mental state is occurring either to you alone or to you as the owner of the state, it is you who self-attribute the state and form a judgment to the effect that you are in that state or you are having the state in question. Because you are the individual executing introspection, the differences in terms of modes of access can be preserved. SII is a sort of involuntary or unintentional event; it is the stimulus which drives the introspective awareness. In contrast, STI is an intended activity. The two signify respectively *unintended* introspection and *voluntary* introspection.

The term "intended activity" supposes that STI (a) is not automatically or immediately caused by a mental-entity (as when your laugh has been too strongly praised and thereby called notorious, for example); and is when an introspective episode may be induced (such as when it is your conscious experience happening and you are introspectively aware of it); (b) is less limited to a specific state being introspectively accessed (such as the experience in (a), and (c) implies a

deeper involvement from the introspective individual to select an experience or a qualitative aspect of it, to distinguish and complete certain information and to furnish the experiences.

Some people might object that there is no determining distinction between modes of access, since a stimulus itself is also capable of affecting your self-generated introspection—meaning that in both cases an active faculty or process is in play. Alternatively, SII can produce effects in STI just as STI can produce effects in SII. I endorse the possibility that SII and STI can mutually affect each other, such as when introspection is being initiated by a stimulus and then the output or judgment is demanding further introspection, and this process generates introspection about a subsequent state. However, SII is uncontrolled and typically involves specific states that pop-up. STI is relatively controlled and typically involves the states that we select.

It is not easy to reach consensus as to when STI does not participate in SII and if STI is causally inert. I accept this difficulty as it is also difficult to determine the precise boundary of “uncontrolled” as applied to a cognitive process such as introspection—even when it is stimuli-induced and dependent on the target state. However, SII mainly comprises a causal relation. A mental state is causally connected to introspection if it suitably causes introspective awareness and successfully generates an introspective judgment. Merely considering the difference between expressing *reactions* vs. expressing *actions* can help to address my point.

To determine whether my taxonomy is accurate is an open issue for empirical psychology and neuroscience.<sup>18</sup> However, let me suggest that my qualified notion of introspection can be a tool for analyzing specific introspective cases, and can be useful for psychological approaches in determining the underlying mechanisms of introspection—e.g., the intentional control or cognitive system. To assess if I am on the right track, however, it may be worthwhile to allude to investigations on voluntary control in different mechanisms.

Empirical evidence suggests the identification of brain areas dedicated to voluntary control and shows the effects of volitions and the brain differences between voluntary swallowing and spontaneous swallowing—e.g., voluntary effort is required when individuals try to swallow a big pill (Kern, Jaradeh et. al. 2001). Additional distinctions between voluntary and involuntary brain events seem to entail different neuronal bases: voluntary smiles are different from unintended smiles in terms of cortical activity (Iwase et. al. 2002). Research on voluntary control also helps to illustrate how those two types of control may work in tandem to execute actions (Banks & Isham 2009; Baars 2003) and may provide incentives for empirical researchers to investigate introspective cases.

Although a clear distinction between voluntary and involuntary control still requires further investigation, the relevant issue is whether some scientific findings can apply to introspection. Perhaps certain brain-imaging techniques already can shed light on what areas of the brain activate when an individual engages in SII. Then, we can observe whether there is a difference in terms of engaging in SIT when individuals deal with their mental states. Alternatively, we might want to find out how to distinguish between an introspection of our states *with intentional control* and an introspection of our states *once they have arisen*. Examining these kinds of cases might also lend further support to the taxonomy that I suggest here.

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<sup>18</sup> Information-processing can be conceptually distinguished between SII and STI. A mechanism of selective introspection is critical to the story of classifying our conscious experiences, but it cannot be addressed here.

## 5. Conclusion

By examining the pros and cons of the inner-sense view and the acquaintance view, I have claimed that the definitions of introspection that both views offer are too narrow and leave out important features of introspection. After discussing conceptual confusions, I have argued for the possibility of those views complementing, not excluding, each other. Building on this alternative, I have shown that both approaches to introspection conceived of as modes of access not only can coexist and assist each other, but actually broaden the notion of introspection.

This proposal has been modeled on a pluralist framework of different conditions according to how introspection shifts direction upon modes of access: stimuli-induced introspection and self-triggered introspection. This new taxonomy not only better captures more precise characterizations of the relations between introspective awareness and its target mental states, but most importantly it illustrates refined aspects and properties of introspective awareness that leading views have left out. I have advanced an alternative view on introspection, which may prove useful to extant theories of introspection and to researchers across a range of theoretical orientations.

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