



HAL
open science

Variations on familiarity in self-transcendent experiences

Jérôme Dokic

► **To cite this version:**

Jérôme Dokic. Variations on familiarity in self-transcendent experiences. *Metodo. International Studies in Phenomenology and Philosophy*, 2022, 10 (1), pp.19 - 48. 10.19079/metodo.10.1.19 . hal-03912041

HAL Id: hal-03912041

<https://hal.science/hal-03912041>

Submitted on 23 Dec 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial 4.0 International License

Variations on Familiarity in Self-Transcendent Experiences^{*}

Jérôme Dokic

EHESS—Ecole des hautes études en sciences sociales, Institut
Jean Nicod^{**}

dokic@ehess.org

ABSTRACT. In both literature and science, descriptions abound of so-called “self-transcendent” experiences, which seem to deeply alter the boundaries between oneself and the rest of the world. The subjects of these experiences often report that they feel extended to the world, united with it, or on the contrary retracted from it, as if they were tiny or insignificant. Sometimes, they report the disappearance of the very distinction between themselves and the world (ego-dissolution). The aim of the present essay is to give an account of self-transcendent experiences and identify the level of self-consciousness to which they belong. The main claim to be defended is that self-transcendent experiences involve special instances of metacognitive feelings of familiarity or unfamiliarity. Theoretical and empirical research on the latter can then be used to shed light on the former.

KEYWORDS: Self-Transcendent Experiences; Familiarity; Unfamiliarity; Metacognitive Feelings; Ego-dissolution; Self-expansion; Self-retraction.

* I would like to thank two anonymous referees for most helpful comments on a previous version. This study is supported by the SublimAE project (ANR-18-CE27-0023), ANR-17-EURE-0017 FrontCog and ANR-10-IDEX-0001-02 PSL.

** *Correspondence:* Jérôme Dokic, Institut Jean-Nicod, Ecole des hautes études en sciences sociales. Rue d’Ulm 29, F-75230, Paris 05



1. Introduction

In both literature and science, descriptions abound of extraordinary experiences that seem to concern the world as a whole and our place in it. The subjects of these experiences report that they feel extended to the world or people, united with something larger than themselves,¹ or on the contrary retracted from the world, as if they were tiny or insignificant. Sometimes, they report the disappearance of the very distinction between themselves and the world. Common to all these cases is the feeling that the ordinary boundaries between oneself and the rest of the world, or between inside and outside, have deeply changed. The phrase “self-transcendent experience” will be used to capture such a feeling.²

The aim of the present essay is to give an account of self-transcendent experiences and identify the level of self-consciousness to which they belong. The main claim to be defended is that self-transcendent experiences are variations on the theme of familiarity. More precisely, there are two main kinds of self-transcendent experiences, which involve either feelings of familiarity or feelings of unfamiliarity. While such feelings are ordinarily about particular objects or scenes, in self-transcendent experiences they are directed at the whole world. In other words, self-transcendent experiences are scaled-up versions of ordinary feelings of (un)familiarity. Thus, what we know from theoretical and empirical research on the latter can be used to shed light on the former.

The essay is organized as follows. The next section presents an empirically plausible cognitive architecture for feelings of familiarity

1 JAMES 1902.

2 Some examples of self-transcendent experiences will be provided shortly, including the literary example of Robert Musil’s «other condition». YADEN ET AL. 2017 call “self-transcendent” experiences in which «the subjective sense of one’s self as an isolated entity can temporarily fade into an experience of unity with other people or one’s surroundings, involving the dissolution of boundaries between the sense of self and ‘other’» (YADEN ET AL. 2017, 1). My use of the phrase “self-transcendent experience” is close to but broader than that of these authors’, as will be made clear at the beginning of section 3.

and unfamiliarity. These feelings trigger spontaneous narrative explanations, which may or may not be endorsed by more decontextualized or analytical thought processes. In section 3, a case is made for the view that the core of many self-transcendent experiences consists in special feelings of either familiarity or unfamiliarity. Section 4 highlights an important difference with ordinary feelings of (un)familiarity, which is that self-transcendent experiences are directed at the world as a whole. In section 5, I suggest that an important type of self-transcendent experience, namely ego-dissolution, can be explained in terms of two other types, namely self-expansion and self-retraction. Section 6 addresses the issue of the valence of self-transcendent experiences. Just as, *ceteris paribus*, feelings of familiarity have an overall positive valence, feelings of unfamiliarity have an overall negative valence. Correspondingly, there are positively valenced and negatively valenced self-transcendent experiences. Typically, though, self-transcendent experiences are complex and dynamic, and their valence depends on a plurality of factors, involving additional feelings and emotions. The pro-social potential of self-transcendent experiences is evoked in a brief section preceding the conclusion.

2. Feelings of (un)familiarity: a three-tiered cognitive architecture

I retired to a remote island inhabited by complete strangers. Suddenly, I come across someone who strikes me as familiar: I know that I know her from before, but I cannot remember where and when. Suddenly, light dawns on me: she is my old-world dentist! In general, feelings of familiarity signal whether something (a thing, a person, an event, etc.) is familiar, i.e., whether the subject knows it from before, or is somehow close or intimate with it. It is empirically plausible that they signal only *unexpected* familiarity, as when I am surprised to see

someone I know in an exotic place³. Expected familiarity may not give rise to a distinctive feeling. When something is expectedly familiar, it is taken for granted, and the phenomenology of taking for granted is silent, or at least discrete.

In addition to feelings of familiarity, we have feelings of *unfamiliarity*, which signal whether something is unfamiliar, i.e., unknown to the subject and somehow aloof or disconnected from them. Feelings of unfamiliarity are not the same as absences of feelings of familiarity. When items in the world feel estranged in this sense, they do not evoke anything in us, and we are somehow aware of this epistemic and affective distance. We picture ourselves as lacking information about the unfamiliar items. For instance, I have a feeling of unfamiliarity or estrangement when I see unknown keys left on my desk, or when I come across a complete stranger. I experience the keys or the stranger as having a special relationship to myself, except that in this case the relationship is negative: they strike me as unknown items, with a sense of epistemic and affective opacity.

Feelings of unfamiliarity are also sensitive to one's expectations. The case of unfamiliarity is not entirely symmetrical with that of familiarity, since it seems that we can have a feeling of *expected* unfamiliarity. Even if I expect to find a novel object in a surprise box, the revealed object gains some saliency in my field of consciousness and triggers my interest or curiosity. However, as in the case of familiarity, our feeling of unfamiliarity is certainly stronger when unfamiliarity is unexpected. For instance, if I expect to find only my personal belongings in my room and discover that unknown keys have been left there, I have a heightened feeling of unfamiliarity with respect to the keys.⁴

Both feelings of familiarity and unfamiliarity are experiences of *self-*

3 WHITTLESEA & WILLIAMS 2001.

4 In the pathological condition called "derealization", subjects report being alienated from the whole world, but it does not always seem appropriate to attribute strong *feelings* of alienation to them, given that derealization generally involves a flatness of affect (SIERRA 2009). One might suggest that in extreme cases of derealization, global unfamiliarity has become expected and part of the silent background of their experiences.

relevance: something is felt to be positively or negatively related to myself. Neuroscience suggests that self-referential processing is associated with greater activity in cortical midline structures, and especially in the medial prefrontal cortex (MPFC), a part of the so-called “default mode network” or DMN⁵. The DMN seems to have a variety of functions, including mind-wandering and more generally stimulus-independent thought, mental time travel and some forms of social cognition.⁶

In a useful discussion of feelings of familiarity in both normal and pathological contexts, Philipp Gerrans describes the DMN as «essentially a mechanism for constructing the elements of personal narratives». ⁷ Thanks to the DMN, the subject can «build a narrative context, a story, which fits the experience and locates the subject in relation to it». For instance, if a place feels vaguely familiar to them, but does not evoke specific episodic memories, the subject’s “initial response” is to elaborate a narrative according to which they have been in that place before. Thus, the DMN «provides a necessary subjective perspective on experiences, locating them in personally and/or socially compelling narratives». ⁸

Gerrans observes that the elaboration of self-narratives via the DMN can proceed in relative autonomy from *decontextualized thought*, which can represent the same information neutrally or impartially, as when we try to reframe a situation in a way that is less focused on our personal interests and adopts a more objective or theoretical perspective. When something feels familiar, what comes spontaneously to mind is some narrative explanation of the experienced familiarity, which is then reflectively assessed thanks to decontextualized cognitive processes. Indeed, hyperactivity in the DMN might prevent the subject from performing decontextualized

5 FREWEN ET AL. 2020; HUANG ET AL. 2016; MARTINELLI ET AL. 2013; QIN ET AL. 2013; QIN & NORTHOFF 2011; D’ARGEMBEAU ET AL. 2005.

6 SCALABRINI ET AL 2022.

7 GERRANS 2014, 6.

8 GERRANS 2014, 6-7.

tasks such as symbolic reasoning.⁹ Moreover, deluded subjects fail to use decontextualized thought to assess the self-narratives provided by the DMN, resulting in confabulation.¹⁰

In effect, Gerrans puts forward a three-tiered cognitive architecture for feelings of familiarity, which can be extended to feelings of unfamiliarity (see Fig. 1). The first tier (the “feeling” tier) involves the conscious experience of familiarity or unfamiliarity itself. Error signals are generated from lower or earlier stages of cognitive processing, which indicate unexpected familiarity or unfamiliarity. These signals may arise due to the unexpected detection of subpersonal familiarity cues (e.g., fluency or coherence) or unfamiliarity cues (e.g., disfluency or incoherence). At the phenomenological level, something or someone may feel surprisingly familiar or unfamiliar. For instance, I unexpectedly come across a person who feels vaguely familiar, but whom I do not recognize. Initially at least, my feeling is cognitively *opaque*. It does not specify the specific relationship that the person bears to me.

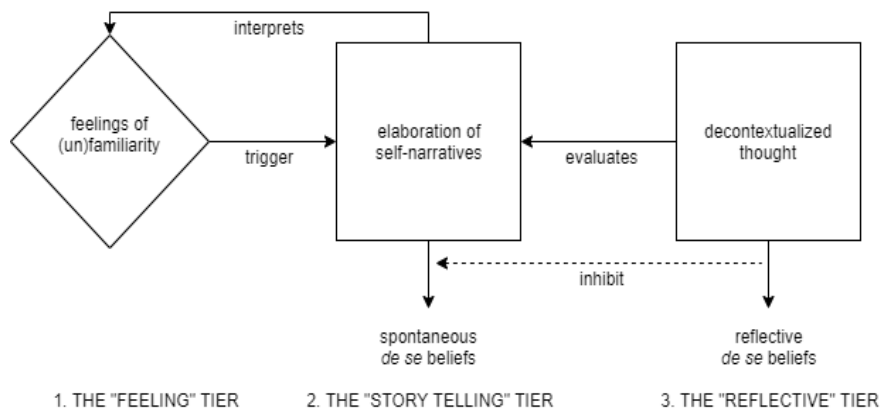


Fig. 1

The second tier (the “story telling” tier) involves narrative

⁹ WHITFIELD-GABRIELI ET AL. 2011.

¹⁰ BROYD ET AL. 2009.

elaborations of the familiarity or unfamiliarity felt by the subject. More precisely, the opacity of the subject's feeling at the first tier motivates them to construct meaningful self-narratives. Such narratives enable them to move from unspecific to more specific representations about themselves and provide spontaneous explanations of why something feels familiar or unfamiliar. For instance, I try to remember the context in which I met the person: "Was it in a conference? Or perhaps in a non-academic situation?". If I eventually recognize the person, my self-narrative incorporates specific memory information about her and stabilizes itself.

The third tier (the "reflective" tier) involves impersonal or more objective evaluations of the spontaneous self-narratives generated at the earlier level. At that level, the self-narratives may or may not give rise to actual beliefs about oneself. For instance, I may believe that I know the person in front of me from before or, on the contrary, I may believe that my feeling of familiarity is misleading. Note that the subject may still be motivated to construct self-narratives even when they know, at the impersonal level, that their feeling of familiarity is misleading or that it is not worth searching for the name of the person. This explains why some cases of "tip-of-the-tongue" experiences¹¹ are annoying, as when I am wondering about the identity of the person while simultaneously judging my search to be an unnecessary distraction.

The three-tiered cognitive architecture does not yet specify the division of labour between the contents of feelings of (un)familiarity and the contents of the narratives that are elaborated at the second tier. One view is that these feelings have rather *poor* intrinsic contents and should be considered as largely uninterpreted experiences of self-relevance. Arguably, they have *some* semantic features: for instance, the fact that they are bound to an object in the world seems to be given in experience independently of subsequent interpretation by the subject. But what they say *about* the object, beyond the fact that it bears some positive or negative relation to the oneself, is rather

11 SCHWARTZ & METCALFE 2011.

indeterminate.

The view that feelings of (un)familiarity have poor intrinsic contents is consonant with current research on metacognitive feelings.¹² The very same cue, such as processing fluency, can be associated with quite different feeling-based judgements, about truth, familiarity, frequency, easiness, fame, aesthetic preference¹³, or perhaps even (in special cases) novelty.¹⁴ It does not follow that the interpretation of one's metacognitive feelings is entirely unconstrained. Beyond the fact that they are bound to some object, their *non-semantic* features can constrain their narrative elaborations. For instance, in Thompson's account¹⁵, the *strength* of the feeling of rightness can determine whether deliberate analytic processes should be triggered in a particular task: a weak feeling of rightness raises the subject's epistemic vigilance and motivates them to look at the matter more carefully.

Consider Capgras's syndrome, which involves a feeling of unfamiliarity bound to a particular person, who is in fact a close relative. Subjects often provide extravagant narrative explanations of what seems to be a brute feeling of unfamiliarity about a person who looks exactly like their relative: the latter has been replaced by an imposter and lives in the Parisian catacombs, or the imposter is in fact a robot, or an alien, etc.¹⁶ The contents of the subjects' feelings of unfamiliarity are enriched by independent narratives. Moreover, since Capgras's syndrome is a delusion, these narratives are not critically evaluated by decontextualized thought processes and seem to be endorsed by the subject as facts.

In a nutshell, spontaneous self-ascriptions of feelings of (un)familiarity might reflect narratives elaborated at the second tier rather than rich experiential contents already available at the first tier. Although these narratives are relatively independent from

12 DOKIC 2012; PROUST 2013; ARANGO-MUÑOZ & MICHAELIAN 2014.

13 ALTER & OPPENHEIMER 2009; SCHWARZ 2018.

14 UNKELBACH 2006.

15 THOMPSON 2009.

16 COLTHEART & DAVIES 2000.

deliberative, decontextualized thought, they should be cognitively penetrable by various socio-cultural representations, prototypes, cognitive frames, and habits. This will prove important when the architecture is applied to self-transcendent experiences, which involve special instances of feelings of familiarity or unfamiliarity, as we shall now see.

3. Self-transcendent experiences

Yaden et al.¹⁷ call “self-transcendent experiences” transient mental episodes that according to subjective reports involve two components:

1. An “annihilational” component, namely ego-dissolution, or the experience of there being no boundaries any more between oneself and the rest of the world.
2. A “relational” component, namely «the sense of connectedness, even to the point of oneness, with something beyond the self».¹⁸

The present essay is concerned with a broader notion of self-transcendent experience, which refers to the feeling that *the ordinary boundaries between oneself and the rest of the world, or between inside and outside, have deeply changed*. As we shall see, this notion covers cases falling short of ego-dissolution, in which some distinction between oneself and the world is preserved in experience. It also covers cases involving feelings of *disconnectedness*, in which the subject feels estranged from the world or others.

Self-transcendent experiences can occur in religious, mystical, meditative, and aesthetic contexts and can be naturally or artificially induced (e.g., by psychedelic substances). They can but need not have pathological manifestations. They appear to their subjects to be genuine experiences, which they may or may not endorse. That is, the subjects may not *believe* that what they experience is real, but it still

17 YADEN ET AL. 2017.

18 YADEN ET AL. 2017, 3.

seems to them as if their own relation to the world had been substantially altered.

We may distinguish four types of self-transcendent experiences:

1. *Self-expansion*: The subject reports feeling more extended to the world or others than usual.
2. *Self-retraction*: The subject reports feeling less extended in the world than usual.
3. *Ego-dissolution*: The subject reports the disappearance of self/world boundaries.
4. *Self-translation*: The subject reports experiencing the world from an unusual (e.g., out-of-body) perspective.

The discussion in this essay mainly concerns the first three types, which I claim can be adequately described as involving special feelings of (un)familiarity with something beyond the self. The third type will be examined separately in section 5, but I will argue that it reduces to either the first or the second type. The discussion of the fourth type is left for another occasion.¹⁹

Let us start with a few examples. Robert Musil literarily describes an exceptional mental state that he calls «the other condition» (“der andere Zustand”), which involves «a secret rising and ebbing of our being with that of things and other people»²⁰ :

One participates in things (understands their language). In this condition understanding is not impersonal (objective), but extremely personal, like an agreement between subject and object. In this condition one really knows everything in advance, and the things merely confirm it. (Knowing is reknowing.)²¹

The other condition is an experience in which the whole world may feel highly familiar («Knowing is reknowing») to the subject. More

¹⁹ On out-of-body experiences, see, e.g., BLANKE ET AL. 2002 and BERGOUIGNAN ET AL. 2014.

²⁰ MUSIL 1990 [1978], 199.

²¹ MUSIL 1990 [1978], 186.

precisely, the subject in this condition may feel as if they were intimately connected with the world and in harmony with it. As Jacques Bouveresse puts it commenting on Musil's notion:

The other condition corresponds to a relationship of sympathy and communion with reality, from which any idea of conquest, mastery, domination and exploitation is completely absent.)²²

Similarly, Romain Rolland's notion of *oceanic feeling* has been described by Freud as involving an «indissoluble bond» with the universe, or the experience of «being one with the external world as a whole»²³ Tom Cochrane suggests that something like the oceanic feeling is involved in the experience of the sublime, considered as the aesthetic experience of an extremely vast or powerful entity:

A monumental object like the starry sky might even encourage one to imagine the entire universe as a unified substance, where one visualises this substance as somehow infused with one's sense of first-person consciousness.²⁴

Finally, consider what Taylor calls «the sense of fullness»²⁵ (with reference to Musil's other condition), which he says can have positive and negative manifestations (see also Section 6 below). Its positive manifestation also seems to involve the experience of the world as being anything but strange or distant, and of being connected or united with everything:

There may just be moments when the deep divisions,

22 BOUVERESSE 2001, 202. My translation. Here is the French original: «L'autre état correspond à une relation de sympathie et de communion avec la réalité, dont toute idée de conquête, de maîtrise, de domination et d'exploitation est complètement absente».

23 ROLLAND 1962, 11-20.

24 COCHRANE 2012, 141, FN.28.

25 TAYLOR 2007.

distractions, worries, sadnesses that seem to drag us down are somehow dissolved, or brought into alignment, so that we feel united, moving forward, suddenly capable and full of energy.²⁶

Some descriptions of hyperfamiliarity with the whole world emphasize the experience of accessing things in themselves, their essences or «thusness».²⁷ The world feels so intimately related to the subject that they are inclined to believe that they know things from the inside.

On the side of unfamiliarity, consider the feeling that one is somehow “disconnected” or “alienated” from the world. For the subject who has such a feeling, it is as if they were expelled from the world or could “fall out of it”. In their experience, the world has become wholly unfamiliar and sometimes even hostile. As a subject puts it: «Objects do not come to me, they do not identify themselves with my being; a thick cloud, a veil changes the hue and aspect of objects.»²⁸

Some cases of awe involve global feelings of unfamiliarity.²⁹ In these cases, we may feel estranged from the world as we are confronted with an overwhelming entity, too vast, powerful or skilled to encompass within our ordinary cognitive capacities.³⁰ Accordingly, awe appears to trigger «an almost metaphorical sense of smallness of the self».³¹ Subjects who remember an experience of awe tend to report a feeling of smallness relative to the environment³² as well as the feeling of being humble and less significant.³³

26 TAYLOR 2007, 6.

27 MILNER 1957.

28 ESQUIROL 1838, 414. This report is from a subject who suffers from derealization; see the caveat formulated in footnote 4.

29 What is at stake here is sometimes called “negative awe”, to mark the contrast with positive cases of awe; see ARCANGELI ET AL. 2020, and section 6 below.

30 KELTNER & HAIDT 2003.

31 PIFF ET AL. 2015, 884.

32 CAMPOS ET AL. 2013.

33 SHIOTA ET AL. 2007.

4. World-directedness

If self-transcendent experiences involve feelings of familiarity or unfamiliarity at their core, the three-tiered cognitive architecture introduced for the latter should apply to the former. On this view, these experiences are indeed triggered by feelings of familiarity or unfamiliarity (at the “feeling” tier), but their rich and sometimes colourful contents are elaborated at the level of the narrative self (the “story telling” tier), whether or not they are endorsed in the form of reflective beliefs about oneself (at the “reflective” tier). Thus, the sense of self-expansion or self-retraction can but need not be about one’s *body* as expanding or retracting. It might seem to the subjects as if they were bodiless or had another kind of body altogether. One can explain the dissociation between such self-alterations and modifications of the subject’s body image by locating the former at the level of narrative self rather than low-level bodily experiences.³⁴

What are then the differences between the feelings of (un)familiarity involved in self-transcendent experiences and their ordinary analogues? Are they differences in degree or in kind? It is worth noting that ordinary feelings of familiarity or unfamiliarity too may come with a sense of self-expansion or self-retraction, respectively. One tends to self-appropriate familiar things and persons and treat them as if they were part of oneself, as social psychology has observed.³⁵ Analogously, ordinary feelings of unfamiliarity may come with the tendency to separate oneself from the unfamiliar objects, as if mere unfamiliarity were sufficient for the object to be other than oneself. In some pathological cases, such as depersonalization³⁶ or

34 See also FINGELKURTS ET AL. 2021, who distinguish various types of (what is called here) self-transcendent experiences based on the distinction between a pre-reflective or low-level sense of the self (Self) and a representational or high-level sense of the self (Me).

35 See for instance ARON ET AL. 2004.

36 See BILLON 2017.

somatoparaphrenia³⁷, what is felt unfamiliar and separate from oneself is in fact oneself or a part of oneself. In many ordinary cases, though, these experiences remain mere *tendencies*: one does not feel actually extended to the familiar object or retracted from the unfamiliar one. But they belong to the same kinds of feelings of familiarity or unfamiliarity as those involved in the corresponding self-transcendent experiences.

However, I would like to suggest that there is a categorical difference between them. Ordinary feelings of (un)familiarity are *local*, in the sense that they are bound to some object among others in the world. My feeling of familiarity with respect to my friend Mary is local, just as my feeling of “*déjà vu*” with respect to the scene I am currently experiencing. Similarly, my feeling of unfamiliarity with respect to unknown keys left on my desk is local, just as my feeling of “*jamais vu*” with respect to the scene I am currently experiencing. In contrast, self-transcendent experiences involve *global* feelings of familiarity, which are bound to the world as a whole. What feels familiar or unfamiliar is reality itself, rather than anything within it.

One might object that the feelings just described are still local: they are always bound to specific objects. It is just that *any* object the subject comes across feels either familiar or unfamiliar. However, this description is unfair to the phenomenology of self-transcendent experiences, and in fact fits a quite different kind of experience. Some people report generalized experiences of either “*déjà vu*” or “*jamais vu*”.³⁸ A generalized experience of “*déjà vu*” arises when *any* scene feels strangely familiar. For instance, when the subject watches a TV show or reads a book, it seems to them as if they had already seen the show or read the book. Conversely, a generalized experience of “*jamais vu*” arises when *any* scene feels strangely unfamiliar, or when familiar objects seem as unfamiliar as anything else. These experiences are sometimes delusional, but they need not be. Subjects may report them even if they do not actually believe that they experience either

37 See VIGNEMONT 2017.

38 MOULIN 2017, ILLMAN ET AL. 2012, SNO 2000.

familiar or unfamiliar objects.³⁹

Self-transcendent experiences are precisely *not* based on generalized feelings of “*déjà vu*” or “*jamais vu*”, which still count as local feelings of familiarity or unfamiliarity. What characterizes the latter is their *persistence*, i.e., the fact that any particular scene will strike the subject as either familiar or unfamiliar. In contrast, the feelings of familiarity or unfamiliarity involved in self-transcendent experiences have a holistic dimension that the other experiences lack: they are *world-* rather than object-directed.

Some self-transcendent experiences might seem object-directed, as when one feels united with a significant other (remember Ulrich’s feeling for his sister Agathe). However, in this case and others of the same type, it is plausible that the subject experiences the other as if the rest of the world did not exist. The notion of world-directed self-transcendent experience is explanatory prior, and the other cases involve some kind of immersion into a situation temporarily experienced as the whole world. For the subjects it is as if their experiences were world-directed.

To sum up, the sense of self-expansion and the sense of self-retraction are variations on the theme of familiarity. One feels self-expanded because some part of the world that felt unfamiliar now feels unexpectedly familiar, even hyperfamiliar. Analogously, one feels self-retracted because some part of the world that felt familiar now feels unexpectedly unfamiliar, even hypofamiliar. Self-expansion and self-retraction can be experienced already in ordinary cases, but self-transcendent experiences arise only when one’s feelings of (un)familiarity are directed at the world as a whole.

39 I assume that these experiences involve *unexpected* familiarity or unfamiliarity, at least initially. The familiarity or unfamiliarity of the world might eventually become expected, resulting in rather *boring* experiences: nothing would seem interestingly familiar or unfamiliar. In the latter case, the experience comes close to that of the derealized subject.

5. Ego-dissolution

The phenomenology of world-directedness might seem paradoxical: how can an experience be directed at the world as a whole and at the same time remain *dualistic*, in the sense that some distinction is preserved, in experience, between oneself and whatever our experience is directed at. One might argue that world-directed experiences should lead to what the psychological literature calls “ego-dissolution”. Ego-dissolution is a conscious experience in which the distinction between self and world has vanished altogether. It is a *non-dualistic* experience, in which it seems to the subject as if there were no boundaries separating themselves from the rest of reality.⁴⁰ It has also been described as a state of selfless consciousness, and thus as a counterexample to the venerable Kantian thesis that consciousness necessarily involves self-consciousness.⁴¹

It is worth noting that ego-dissolution is a very special experience. Many self-transcendent experiences require at least a minimal form of self-consciousness: the world seems wholly familiar or unfamiliar *to oneself*. For instance, Musil’s description points to an intimacy with the world as a whole, not to a complete coincidence. Elsewhere he makes the following observation:

We gave a great many accounts of this other condition. What seems to be common to all of them is that the border between self and nonself is less sharp than usual, and that there is a certain inversion of relationships. (Egoism and measuring.) Whereas ordinarily the self masters the world, in the other condition the world flows into the self, or mingles with it or bears it, and the like (passively instead of actively).⁴²

The fact that everything seems to be «infused with one’s sense of

40 KRAUSZ 2009.

41 MILLIÈRE 2017.

42 MUSIL 1990 [1978], 186.

first-person consciousness», to use Cochrane's apt phrase, does not entail that one seems to literally coincide with everything. Analogous remarks can be made about world-directed feelings of unfamiliarity. One may feel estranged from the whole world while preserving some sense of one's existence, however reduced. We may feel small and insignificant, but not yet completely disintegrated.⁴³

At this point, a useful distinction can be drawn between ego-dissolution as a *state* and ego-dissolution as a *process*. The state of ego-dissolution would be a non-dualistic experience, involving no boundaries between self and world. Processes of ego-dissolution, in contrast, would be dualistic experiences that *tend* toward the state of ego-dissolution. Then there would be two kinds of ego-dissolution processes, involving either self-expansion or self-retraction. The latter would have opposite "directions of fit", so to speak: self-to-world in the case of the dynamic experience of self-expanding, and world-to-self in the case of the dynamic experience of self-retracting. On this view, the state of ego-dissolution can be pictured as a common limit of two quite different experiences and can be specified as either *maximal* self-expansion or *maximal* self-retraction.

Self-transcendent experiences alter the apparent boundaries between self and world, but many of them remain dualistic: they move such boundaries outwards or inwards but never to the point of complete dissolution. From a phenomenological point of view, they are at best felt *tendencies* toward total union or alienation. A more radical claim, which deserves a separate enquiry, is that ego-dissolution is an impossible limit to reach. This claim preserves the Kantian thesis: ego-dissolution would be a narrative exaggeration of experiences involving substantial self-expansion or self-retraction. Because they are world-directed, self-transcendent experiences are best considered as limit-experiences, and what the subjects describe as ego-dissolution

43 This seems to be backed up by empirical evidence. Feelings of familiarity or unfamiliarity should activate the DMN considered as the seat of self-referential processes. In contrast, at least some cases of ego-dissolution, especially those involving psychedelic drugs, show decreased DMN activity (CARHART-HARRIS ET AL. 2014).

are experiences which come very close to the limit of dissolution.⁴⁴ In fact, though, there is not any *conscious* experience that abolishes self-consciousness.

I have argued that ego-dissolution is a limiting case of either self-expansion or self-retraction. As we have seen in the previous section, the core of the latter experiences consists in feelings of either familiarity or unfamiliarity. Thus, ego-dissolution, which comes in two versions, also involves feelings of (un)familiarity at its core.

6. Affective complexity

The valence of self-transcendent experiences is diverse. Some of them seem to be wholly positive, such as the experience of “flow”. Flow has been characterized as a highly satisfying, “optimal experience” in which the subject is entirely absorbed in a current activity.⁴⁵ Others seem to be wholly negative, such as the dreadful feeling of being alienated from the world. Many are mixed experiences, involving both positive and negative aspects.

Sometimes the very same label applies to both positively valenced and negatively valenced phenomena. For instance, Saarinen⁴⁶ observes that the oceanic feeling has been associated with positive emotions, such as «ecstasy, mania, joy, bliss, wellbeing, peace, tranquillity, harmony, sublimity and vitality», but also with negative emotions, ranging from «fear of drowning» and «losing one’s hold on the solid earth»⁴⁷ to «overwhelming dread» and «horror of annihilation».⁴⁸ Similarly, awe has been associated with both positive and negative emotions, and some authors have even proposed that there are two

44 For an analysis of limit-experiences, focused on the experience of the sublime, see ARCANGELI & DOKIC 2021.

45 CSIKSZENTMIHALYI 1991.

46 SAARINEN 2015, 13.

47 MILNER 1957, 23.

48 HARRISON 1986.

kinds of awe, positive and negative.⁴⁹

Another interesting example is ego-dissolution. Standard questionnaires aimed at measuring the effects of psychoactive compounds acknowledge two dimensions, namely *Ocean Boundlessness* (OBN) and *Dread of Ego Dissolution* (DED), which are «loosely associated with positively and negatively experienced ego dissolution, respectively».⁵⁰ The relevant scales include items such as “I seemed to me that my environment and I were one” (OBN) and “I observed myself as though I were a stranger” (DED).

The core valence of self-transcendent experiences is best explained on the hypothesis that they are variations on the theme of familiarity. *Ceteris paribus*, familiarity “feels good”, whereas unfamiliarity is unpleasant.⁵¹ The oceanic feeling is an extraordinary experience of familiarity with the whole world, which explains why it has a positive valence. As Freud observed, it is for the subject as if they cannot «fall out of this world», which provides them with «some consolation in the face of harsh reality».⁵² In contrast, an experience of unfamiliarity with the whole world should have a negative valence. It seems to the subject as if they were on the verge of falling out of the world, which, to say the least, does not feel very good.

One might then suggest that when an experience described as ego-dissolution feels good, what is really at stake is an ongoing process of self-expansion, and when it feels bad, what happens is an ongoing process of self-retraction.

However, the matter is more complex, because other feelings or emotions might contribute to the overall valence of the subject’s experience. For instance, the subject might *fear* that more self-expansion would lead to self-annihilation, in a way which paints their

49 PIFF ET AL. 2015; BUT SEE ARCANGELI ET AL. 2020.

50 MILLIÈRE 2017, 3.

51 One might object that if you come across and recognize your worst enemy, your experience does not feel good. However, this case involves a complex affective experience whose negative valence outweighs the positive valence of the feeling of familiarity considered in itself.

52 FREUD 1961 [1930], 65.

experience in dark colours. Conversely, the subject may be *relieved* that more self-retraction would in fact obliterate what they experience as an insignificant and hopeless self.

Another dimension of complexity results from the fact that feelings of familiarity or unfamiliarity involve two distinct metacognitive evaluations.⁵³ In addition to the evaluation of something as being unexpectedly familiar or not, they involve the evaluation of one's *coping potential* with respect to the current situation. For instance, faced with the question "What is the capital of Peru?", one may have a tip-of-the-tongue experience, which involves the evaluation of the answer as familiar, but also the evaluation of one's coping potential with respect to the question, i.e., whether one will be able to give the answer soon.

Both dimensions of evaluation contribute to the overall valence of the experience. The feeling of familiarity has an overall positive valence but depending on the subject's evaluation of their ability to cope with the current situation, the valence of their experience can be tinged negatively. Musil sometimes describes "the other condition" as involving a "mysterious sympathy", and the mystery can be experienced negatively, as something that would evade oneself forever. This is a quite different experience from flow, which also involves familiarity with the world but with a different evaluation of one's coping potential. In flow, not only everything feels familiar, but the world feels as if it could be entirely assimilated. Analogously, the darkness of unfamiliarity can be more or less stark depending on whether one feels able to assimilate what presently appears as a radically novel and unknown world.

In general, the valence of a self-transcendent experience is a function of its complexity but also of its dynamics. For instance, Piff et al.⁵⁴ observe that even positive awe involves the sense of small self, which the present account associates with the negatively valenced feeling of self-retraction. However, there might not be any incompatibility here

53 SILVIA 2006.

54 PIFF ET AL. 2015.

if we consider the dynamics of the subject's experience. The sense of small self is negatively valenced in itself, but it can be accommodated by shifting to a more objective perspective which bring about pro-social behavior and a «more universal self-definition.⁵⁵ The upshot of such accommodation has an overall positive valence, and at this stage, the subject should not feel particularly small, or at least not smaller than others, but equal to them. Thus, the authors' observation, that positive awe too involves the sense of small self, is compatible with the present model.

Finally, consider again Yaden et al.'s analysis of self-transcendent experiences, mentioned above (section 3)⁵⁶, as involving two components: an "annihilational" component, which corresponds to "self-loss" or ego-dissolution, and a "relational" component, which refers to the feeling of being united with something beyond the self. This analysis is intended to cover a great variety of experiences, including states of mindfulness, self-transcendent positive emotions such as love and awe, peak experiences, and mystical experiences. The valence of the second component, which corresponds to self-expansion, is supposed to be positive (for instance, one might feel "at home with the universe"), but what about the first component? As the authors observe, self-loss might be experienced either positively or negatively. Again, there is no contradiction here with the present model if we respect the distinction between ego-dissolution as a state and as a process. On the present account, there are two distinct processes of ego-dissolution, involving either positively valenced self-expansion or negatively valenced self-retraction. Both could in principle lead to the complete dissolution of the self, if such an experience is ever possible. In fact, many reported alterations of the sense of one's own boundaries point to a dynamic process of expansion or retraction. In both cases the subject might *fear* that their own self might eventually vanish, which contributes to the overall valence of a complex and dynamic experience.

55 PIFF ET AL. 2015, 896.

56 YADEN ET AL. 2017.

7. A brief note on togetherness

Some self-transcendent experiences have a pro-social potential. Social psychologists have shown that broadly positive self-transcendent experiences «are more often associated with positive outcomes such as well-being and prosocial behavior».⁵⁷ This might seem puzzling. For the relevant experiences are often solitary ones. As the Swiss poet Philippe Jaccottet observes: «The strange thing is, in particular, that no experience, religious or philosophical for example, is ever made for others, that it must be redone, lived again, to have any value; and that thus it is always necessary to start again».⁵⁸ Consider the experience of the sublime. It can be so overwhelming that there is hardly any room, in the experience, for any other. Two subjects can each have an experience of the same sublime object, but it seems that there cannot be *joint* attention to the sublime as such.

Some explanations of the pro-social potential of self-transcendent experiences seem to be restricted to the broadly positive varieties. For instance, it has been suggested that positive awe shifts our attention from inside to outside and triggers ideas of universality and connection.⁵⁹ However, it can be argued that even negatively valenced self-transcendent experiences can have a pro-social impact. Even if a self-transcendent experience is not and even cannot be about the other as such, altruistic motivation may result from it. But how is this possible?

In general, self-transcendent experiences strengthen abilities that underlie pro-social attitudes and behavior because they enable the subjects to realize the *contingency* of their relationship to the world,

57 YADEN ET AL. 2017, 2; SHIOTA ET AL. 2007; PIFF ET AL. 2015; CHIRICO & YADEN 2018.

58 JACCOTTET 1959. My translation. The French original goes as follows: «L'étrange est, en particulier, qu'aucune expérience, religieuse ou philosophique par exemple, ne soit jamais faite pour les autres, qu'elle doive être refaite, revécue, pour avoir quelque valeur ; et qu'ainsi il faille toujours recommencer».

59 SHIOTA ET AL. 2007.

making them aware that the boundaries between themselves and the rest of the world are not fixed once and for all. They involve strained involuntary exercises of our perspective-taking abilities, which can then show later more flexibility in our interactions with others.

Finally, some self-transcendent experiences involve the realization that the world is meaningless in itself, and that comfort must come from our relationship with others. This is arguably one way of interpreting Pascal's famous observation in *Thoughts*: «All bodies, the firmament, the stars, the earth and its kingdoms, are not equal to the lowest mind; for mind knows all these and itself; and these bodies nothing.»⁶⁰

Pascal's plea for turning away from the stars has found a more recent version, under the pen of Frank Ramsey:

Where I seem to differ from my friends is in attaching little importance to physical size. I don't feel in the least humble before the vastness of the heavens. The stars may be large, but they cannot think or love; and these are qualities which impress me far more than size does. I take no credit for weighing nearly seventeen stone. My picture of the world is drawn in perspective, and not like a model to scale. The foreground is occupied by human beings and the stars are all as small as threepenny bits.⁶¹

8. Conclusions

The aim of this essay was to give (the beginning of) a philosophically sound and empirically tractable account of self-transcendent experiences. The main claim defended here is that they essentially involve world-directed feelings of familiarity or unfamiliarity. Thus, lessons from phenomenological and psychological studies of ordinary,

60 PASCAL 1909, No 792.

61 RAMSEY 1990, 249.

object-directed feelings of familiarity or unfamiliarity can be used to deepen our understanding of self-transcendent experiences.

More precisely, self-transcendent experiences result from spontaneous interpretations of highly unexpected familiarity or unfamiliarity. The contents of the underlying feelings of familiarity or unfamiliarity are enriched by spontaneous narratives, which may or may not be endorsed by the subject. The division of semantic labour between feelings and narratives needs further investigation, but the working hypothesis is that the former have poor intrinsic contents and are attributed richer contents through narrative elaborations. The colourful self-transcendent experiences reported by the subjects might then reflect the contents of spontaneous narratives rather than feelings *per se*.

Feelings of familiarity and unfamiliarity generally affect the experience of self-world boundaries, resulting in apparent self-expansion or self-retraction, or tendencies thereof. Maximal self-expansion or self-retraction would entail ego-dissolution, i.e., the complete disappearance of the boundaries between self and world. I have suggested that self-transcendent experiences that tend toward ego-dissolution might actually fall short of it. The distinction between ego-dissolution as a process (corresponding to either self-expansion or self-retraction) and as a state (which reflects a deeper disorganization of one's sense of self) helps to deal with otherwise puzzling phenomena, such as the valence of ego-dissolution as experienced by the subjects. A stronger claim worth considering is that the state of ego-dissolution is not a coherent conscious experience, and can be approached only asymptotically, via dynamic feelings of either familiarity or unfamiliarity.

On the present account, both kinds of self-transcendent experience arise at the level of the narrative self, which is intermediary between low-level bodily experience and "official", reflective beliefs about oneself. This raises several questions, which fall beyond the scope of this essay. First, one might ask whether the relevant narratives track the subject's actual self or are temporary cognitive illusions. This is a

difficult question, which requires a full-blooded ontological account of the self. Second, there is the issue of whether and to what extent self-transcendent experiences have *top-down* consequences on bodily experience at lower levels. This is an empirical question, which deserves to be investigated further using experimental means other than just questionnaires. For instance, one might use well-known experimental protocols for testing the boundaries of one's own body (e.g., involving rubber hands) and see whether and to what extent these boundaries are altered in a particular self-transcendent experience.

References

- ARANGO-MUÑOZ, S., & MICHAELIAN, K. 2014. «Epistemic Feelings, Epistemic Emotions: Review and Introduction to the Focus section». *Philosophical Inquiries*, 2(1), 97-122.
- ARCANGELI, M., & DOKIC J. 2021 «At the Limits: What Drives Experiences of the Sublime». *British Journal of Aesthetics*, 61 (2), 145-61.
- ARCANGELI, M., SPERDUTI, M., JACQUOT, A., PIOLINO, P., & DOKIC, J. 2020 «Awe and the Experience of the Sublime: A Complex Relationship». *Frontiers in Psychology*. 11:1340.
- ALTER, A. I. & OPPENHEIMER, D. M. 2009. «Uniting the tribes of fluency to form a metacognition nation». *Personality and Social Psychology Review*, 13, 219-35.
- ARON, A., McLAUGHLIN-VOLPE, T., MASHEK, D., LEWANDOWSKI, G., WRIGHT, S. C., ARON, E. N. 2004. «Including others in self». *European Review of Social Psychology*, 15, 101-32.
- BERGOUIGNAN, L., NYBERG, L., & EHRSSON, H. H. 2014. «Out-of-body-

- induced hippocampal amnesia». *Proceedings of the National Academy of Sciences* 111(12), 4421-26.
- BILLON, A. 2017. *Mineness First: «Three Challenges to the Recent Theories of the Sense of Bodily Ownership»*. In F. de Vignemont and A. J. T. Alsmith, *The Subject's Matter. Self-Consciousness and the Body*, Cambridge (MA), MIT Press, 189-216.
- BLANKE, O., ORTIGUE, S., LANDIS, T., & SEECK, M. 2002. «Stimulating illusory own-body perceptions». *Nature* 419, 269-70.
- BOUVERESSE, J. 2001. *La voix de l'âme et les chemins de l'esprit. Dix études sur Musil*. Paris, Seuil.
- BROYD, S. J., DEMANUELE, C., DEBENER, S., HELPS, S. K., JAMES, C. J., & SONUGA-BARKE, E. J. 2009. «Default-mode brain dysfunction in mental disorders: a systematic review». *Neuroscience & Biobehavioral Review* 33, 279-96.
- CAMPOS, B., SHIOTA, M. N., KELTNER, D., GONZAGA, G. C., & GOETZ, J. L. 2013. «What is shared, what is different? Core relational themes and expressive displays of eight positive emotions». *Cognition and Emotion*, 27, 37-52.
- CARHART-HARRIS, R. L., LEECH, R., HELLYER, P. J., SHANAHAN, M., FEILDING, A., TAGLIAZUCCHI, E., ET AL. 2014. «The entropic brain: a theory of conscious states informed by neuroimaging research with psychedelic drugs». *Frontiers of Human Neuroscience* 8:20.
- CHIRICO, A., & YADEN, D. B. 2018. «Awe: A self-transcendent and sometimes transformative emotion». IN H. C. LENCH (ED.), *The function of emotions: When and why emotions help us*. Springer International Publishing/Springer Nature, 221-33
- CLARK, A., & CHALMERS, D. 1998. «The Extended Mind». *Analysis* 58(1), 7-19.
- COCHRANE, T. 2012. «The emotional experience of the sublime». *Canadian Journal of Philosophy*, 42(2), 125-48.
- COLTHEART, M., & DAVIES, M., EDS. 2000. *Pathologies of Belief*, Oxford, Blackwell.

- CSIKSZENTMIHALYI, M. 1991. *Flow: The Psychology of Optimal Experience*. New York, Harper Perennial.
- D'ARGEMBEAU, A., COLLETTE, F., VAN DER LINDEN, M., LAUREYS, S. DEL FIORE, G., DEGUELDRE, C., LUXEN, A., SALMON, E. 2005. «Self-referential Reflective Activity and Its Relationship With Rest: A PET Study». *Neuroimage* 25(2), 616-24.
- DE VIGNEMONT, F. 2017. *Mind the Body An Exploration of Bodily Self-Awareness*. Oxford, Oxford University Press.
- DI BONA, E., & ERCOLINO, S. 2019. «Musil in a loop: the other condition and the extended mind». *Rivista di estetica*, 70, 49-59.
- DOKIC, J. 2012. «Seeds of self-knowledge: noetic feelings and metacognition». In M. J. BERAN, J. BRANDL, J. PERNER & J. PROUST (EDS), *Foundations of Metacognition*. Oxford, Oxford University Press.
- ESQUIROL, E. 1838. *Des maladies mentales*. Paris, J.-B. Baillière.
- FINGELKURTS, ANDREW A., FINGELKURTS, ALEXANDER A., & KALLIO-TAMMINEN, T. 2021. «Self, Me and I in the repertoire of spontaneously occurring altered states of Selfhood: eight neurophenomenological case study reports». *Cognitive Neurodynamics*, <https://doi.org/10.1007/s11571-021-09719-5>.
- FREUD, S. 1961 [1961]. «Civilization and Its Discontents» (J. STRACHEY, trans.). In J. STRACHEY (ED.), *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, Vol. XXI. London, Hogarth Press and the Institute of Psycho-Analysis, 64-145.
- FREWEN, P., SCHROETER, M. L., RIVA, G., CIPRESSO, P., FAIRFIELD, B., PADULO, C., HADDON KEMP, A., PALANIYAPPAN, L., OWOLABI, M., KUSIMENSAH, K., POLYAKOVA, M., FEHERTOI, N., D'ANDREA, W., LOWE, L., & NORTHOFF, G. 2020. «Neuroimaging the consciousness of self: Review, and conceptual-methodological framework». *Neuroscience & Biobehavioral Reviews* 112, 164-212.
- GERRANS, P. 2014. «Pathologies of hyperfamiliarity in dreams, delusions and déjà vu». *Frontiers in Psychology* 5(97), 1-10.
- HARRISON, I. B. 1986. «On 'Merging' and the Fantasy of Merging». *The*

- Psychoanalytical Study of the Child*, 41, 155-170.
- HUANG, Z., OBARA, N., HAP DAVIS, H. 4TH, POKORNY, J., & NORTHOFF, G. 2016. «The temporal structure of resting-state brain activity in the medial prefrontal cortex predicts self-consciousness». *Neuropsychologia* Feb;82, 161-70.
- ILLMAN, N. A., BUTLER, C. R., SOUCHAY, C., AND MOULIN, C. J. 2012. «Déjà vu experiences in temporal lobe epilepsy». *Epilepsy Research Treatment* 2012:539567.
- JAMES, W. 1902. *The Varieties of Religious Experience*. Longmans, Green & Co.
- KELTNER, D, & HAIDT, J. (2003). «Approaching awe, a moral, spiritual, and aesthetic emotion». *Cognition and Emotion*, 17 (2), 297-314.
- MARTINELLI, P., SPERDUTI, M., PIOLINO, P. 2013. «Neural substrates of the self-memory system: New insights from a meta-analysis». *Human Brain Mapping*, 34(7), 1515-29.
- MILLIÈRE, R. 2017. «Looking for the Self: Phenomenology, Neurophysiology and Philosophical Significance of Drug-induced Ego Dissolution». *Frontiers in Human Neuroscience*, Vol. 11, Article 245.
- MILNER, M. 1957. *On Not Being Able to Paint*. New York, Tarcher/Putnam.
- MOULIN, C. 2017. *The Cognitive Neuropsychology of Déjà Vu*. Routledge.
- MUSIL, R. 1990 [1978]. *Precision and Soul*. Edited and translated by B. PIKE AND D. S. LUFT. Chicago, University of Chicago Press.
- PASCAL, B. 1909. *Thoughts* (Edited and translated by W. F. TROTTE), New York, Collier & Sons.
- PIFF, P. K., DIETZE, P., FEINBERG, M., STANCATO, D. M., KELTNER, D. 2015. «Awe, the Small Self, and Prosocial Behavior». *Journal of Personality and Social Psychology*, 108(6), 883-99.
- PROUST, J. 2013. *The philosophy of metacognition*. Oxford, Oxford University Press.
- QIN, P., & NORTHOFF, G. 2011. «How is our self related to midline

- regions and the default-mode network?» *Neuroimage* 57(3), 1221-33.
- QIN, P., DUNCAN, N., & NORTHOFF, G. 2013. «Why and how is the self-related to the brain midline regions?» *Frontiers Human Neuroscience*, <https://doi.org/10.3389/fnhum.2013.00909>.
- RAMSEY, F. P. 1990. *Philosophical Papers* (ED. D. H. MELLOR), Cambridge, Cambridge University Press.
- SAARINEN, J. A. 2015. *A Conceptual Analysis of the Oceanic Feeling. With a Special Note on Painterly Aesthetics*. PhD Dissertation, University of Jyväskylä.
- SCALABRINI, A., SCHIMMENTI, A., DE AMICISA, M., PORCELLI, P., BENEDETTI, F., MUCCI, C., & NORTHOFF, G. 2022. «The self and its internal thought: In search for a psychological baseline». *Consciousness and Cognition* 97, 103244.
- SCHWARZ, N. 2018. «Of fluency, beauty, and truth: Inferences from metacognitive experiences». IN J. PROUST & M. FORTIER (eds), *Metacognitive Diversity: An Interdisciplinary Approach*. Oxford, Oxford University Press, 25-46.
- SCHWARTZ, B. L., & METCALFE, J. 2011. «Tip-of-the-tongue (TOT) states: retrieval, behavior, and experience». *Memory and Cognition* 39, 737-49.
- SHIOTA, M. N., KELTNER, D., MOSSMAN, A. 2007. «The nature of awe: Elicitors, appraisals, and effects on self-concept». *Cognition & Emotion*, 21, 944-63.
- SIERRA, M. 2009. *Depersonalization: A new look at a neglected syndrome*. Cambridge, Cambridge University Press.
- SILVIA, P. J. 2006. *Exploring the psychology of interest*. New York, Oxford University Press.
- SNO, H. N. 2000. «Déjà vu and jamais vu». IN G. E. BERRIOS AND J. R. HODGES (EDS), *Memory Disorder in Psychiatric Practice*, New York, Cambridge University Press, 338-47.
- TAYLOR, C. 2007. *A Secular Age*, Cambridge (Mass.), Harvard University Press.

- UNKELBACH, C. 2006. «The Learned Interpretation of Cognitive Fluency». *Psychological Science* 17(4), 339-45.
- THOMPSON, V. A. 2009. «Dual process theories: A metacognitive perspective». In J. EVANS & K. FRANKISH (EDS.), *In two minds: Dual processes and beyond*. New York, NY: Oxford University Press, 71-195.
- WHITFIELD-GABRIELI, S. , MORAN, J. M. , NIETO-CASTAÑÓN, A. , TRIANTAFYLLOU, C., SAXE, R., GABRIELI, J. D. 2011. «Associations and dissociations between default and self-reference networks in the human brain». *Neuroimage* 55, 225-23.
- WHITTLESEA, B. W. A, WILLIAMS, L. D. 2001. «The Discrepancy-Attribution Hypothesis: II. Expectation, Uncertainty, Surprise, and Feelings of Familiarity». *Journal of Experimental Psychology Learning Memory and Cognition* 27(1), 14-33.
- YADEN, D. B., HOOD JR., R. W., HAIDT, J., VAGO, D. R., & NEWBERG, A. B. 2017. «The Varieties of Self-Transcendent Experience». *Review of General Psychology* 21(2).