Dreams and the rediffusion of barely mentalized experiences: Outline of a novel modeling approach

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Summary. The author puts forward and elucidates the proposition that a dream is the result of an attributive function of signs that encompasses:
- the input set or "domain" englobing those perceptions that are sufficiently unsettling and that have not been *apperceptionned* (these are typically intuited evocations),
- the output set or "codomain", which is the entire set of oneiric signs,
- the main antagonist of the dream who is the image of the "I" that is implicated in the input set,
- the responses of this "I" constitute the invariants (a rediffusion of the moods, affects, ideas, decisions and driving forces of the "I" in question).

Here the author presents the hypothesis of a morphism.

Keywords: Dream, apperception, intuited evocation, highly mentalization, barely mentalization, set theory, function, order relation

1.   Introduction

In our previous publications we presented elements that led us to believe that a dream replays, unaltered, certain types of life experiences from the preceding day. Our method involved noting the different oneiric impressions (the affects and the physical impressions) and identifying the moment from the previous day when the same affects were experienced or when an emotion, in a particular disposition, mirrors a bodily manifestation (Ruyneau de Saint George, 2018), while, at the same time, respecting their order of appearance (a superposition of impressions that takes into consideration also their interweaving). This superposition of dreams/previous day experiences is so frequent and, quite often, so striking (Ruyneau de Saint-George, 2016a, 2016b, 2017, 2018, 2022) that we were led to posit a principle of the oneiric rediffusion of "barely mentalized" experiences.

We then set out to clarify this subject (Ruyneau de Saint-George, 2022) and presented two "Is": a "Philosophical" I and an "Oneiric" I; in the case of the second "I" we detailed its specificities. However, despite this work, the general vision remained fragmentary and, in the hope of being able to propose a more coherent schema, we attempted modeling the subject. In the following we present the results of this work.

The key element permitting us to structure our model is the concept of apperception (in terms of the apprehension,

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by the mind, of its own inner states). Here, we propose to distinguish those "*apperceptionned*" elements from those that are sensed but not *apperceptionned*, the latter having a chance of being rediffused in a dream. We also propose a concrete vision by applying the concept of intuited evocation.

In this first modeling effort, we have incorporated certain concepts from set theory, thus suggesting a potential mathematization, which could serve to formalize key elements of our model.

2.   Basic Concepts

2.1. Intuited Evocation

Intuited evocation typically takes the form of an ephemeral figuration, which remains latent as long as it is not *apperceptionned* (provided that it does not come to one's "conscious" attention) or as long as it does not disappear of its own accord.

This might include, for example, the presentiment of "work in perspective" when confronted with a broken-down washing machine, the vague apprehension of impending culpability after hearing a specific word or witnessing a scene that awakens the memory of a blunder or the visual appraisal that crosses one's mind on seeing a face that reminds you of somebody that you appreciated. It may also be the furtive, critical evocation that could be translated as "I shouldn't have done that, this will end badly" or "and what if I was actually in the wrong?", or, conversely, the impression, true or otherwise, of handling present difficulties very well. But it could also include the desires and motives that drift in the background…

An intuited evocation is a psychological phenomenon (i.e. open to introspection), that is not *apperceptionned* and, as such, it constitutes a meaningful, primitive, cognitive basis. It can be distinguished both from those productions that we concede to (ulterior motives, surreptitious cogitations that

emerge, more or less, discreetly in the background, day-dreams) and from automatic productions (such as actions, both concrete and abstract, that we perform reflexively).

2.2. "I-BM" and secondary induction

The intuited evocation triggered by the washing machine breaking down could be better expressed as "Damn, more work in store", an evocation related to the resurgence of a memory of a blunder by "Oh no, not another bad memory", the intuited condemnation of an action by "Darn, I shouldn't have…", the positive evocation of a face that spurs you to approach somebody (a conative component)…Thus, beyond intuitions, something feels implicated and, we could say, bemoans ("Damn", "Oh no", "Darn") or "longs for". That something that feels implicated is an "I" and we refer to this as the "I-BM" (as this "I" is sensitive to Barely Mentalized elements or, as we refer to them here, intuited evocations).

This I-BM is at the core of a reaction that can be described as "secondary" as it is subsequent to, just like an affect, a change of humor, a decision, the initiation of an act, a sense of panic…These secondary reactions can be modeled by an inductive function between certain characteristics of the I-BM (their sensibility, values, experience…) and the attractiveness/repulsiveness of the meaning that the intuited evocation carries or, more precisely, by a reciprocal induction, as the degree of attractiveness/repulsiveness is not independent of the I-BM.

2.3. Apperception

Apperception is, to employ general terms, a conscientization. We could describe it as the awareness of an existence. Once *apperceptionned*, an element enters familiar territory and it is ready to take over voluntary control, thereby becoming, another "I", the general "I", the "I" of philosophers, the Highly Mentalized "I" or the "I-HM" that sees itself as being implicated. Considered as such , the "Myself" can be divided into three subsets: the subset of those phenomena under voluntary control, which we qualify as highly mentalized, the subset of those *non-apperceptionned* aspects, which we refer to as barely mentalized and the subsets of those elements that are *apperceptionned* but without having been integrated into the highly mentalized dynamic.

Apperception falls into the class of a "commutation" function (just like functions of complex variables that allow the imaginary part to be transformed into the real part) whose product is the *apperceptionned* element. Alone, it modifies neither the meaning carried by the intuited evocation nor the secondary effect of the I-BM. The I-HM presents itself neither as a commutation of the I-BM (indeed we get the sense of the I-BM that, in the background, stands out as a form of humor affected by the secondary reaction or as a form of disturbance linked to the barely mentalized stimuli. As for the I-HM, it seems to resurface, sometimes, in dreams in the form of various characters) nor as an extension of it. These two "I" appear as distinct entities, as in the schematic of the two siamese twin brothers (Ruyneau de Saint George, 2022). It is not uncommon to see highly mentalized acts arising from barely mentalized, non apperceptionned states. In such cases, the "real" motives are not, to borrow from a familiar term, conscious. Likewise, it is not unlikely to see barely mentalized, non-apperceptionned ideas induce highly mentalized thoughts (a phenomenon of inspiration).

2.4. Psychological elements and their order relations

We can recognize the psychological elements by their introspectable character. Three possible states exist: highly mentalized, barely mentalized and appercepted (without having yet been taken over by voluntary control) and all fall within a framework of cognitive, affective and conative (the impulse to put into action) components. Each component has its own order relation (the type of order relations that we find in set theory) that allows the establishment of hierarchies. Thus, taking, for example, affective intensity, $A(R)$ B denotes that the intensity of A is superior or equal to the intensity of B, hence a hierarchy is established. These order relations have not been quantified, at least not for the present, as we do not, as yet, have access to instruments allowing us to acquire physiological measures (given, for example, an affective intensity that has physiological repercussions, we expect psychological measurability via the physiological measurability). That said, set theory does not require such quantification, it is the existence of order relations that is most important.

The first order relation is the magnitude (which, we could argue, is the level of occupation of Myself: a representation, an affect or a volition may vagabond in a corner of one's mind, yielding to other thoughts or, at the other extreme, they may take over one's mind completely). This magnitude appears to be the result of a settling into place (it settles down, more or less, it hangs on and persists, or not) and of salience (it is more or less apparent). Moreover, magnitude seems to affect the three components simultaneously such that a very dominant representation can, for instance, overshadow the affective and conative components.

A second type of order relation is the intensity: the degree of significance (for a mental representation), the degree of affective intensity, the degree of motivation for the conative dimension.

Finally, a third type of hierarchization needs to be considered: the level of embedding. The breaking down of the washing machine, for example, can lead to "pervasive" irritation (for a certain length of time we can think of nothing else) that is also superficial: like a storm, this anger is merely passing. In contrast, the memory of a blunder can lead to a less pervasive affective output (it accompanies, we are able to think of other things at the same time) but it is deeper and more disturbing.

In relation to the cognitive component, the level of embedding can be expressed as the degree of belief (from the "I wonder if…" to the "I firmly believe that…"). For the affective component it translates as the degree of attachment (to cherish, more or less). And on the conative level, it implies the degree of control or, more precisely, of non-control. One can imagine a limit below which the element is described as "psychodermal" and above which it is said to be "psychovisceral" (the threshold below which scars are not provoked, as in the example of the washing machine breaking down, and above which the upheaval is more difficult to cope with).

The level of psychological embedding does not appear to be determined by the "real" seriousness of an issue. Being confronted by a real danger yields an intuited, anticipated evocation that generates fear. This fear, albeit pervasive and intense, can only be superficial, on a psychological level, while self-judgment ("I should have known how to do it", "In the face of such danger, I will never have what it takes" …) can reveal a deeper level of psychological embedding. It is

largely understood that a frightening experience can be so deeply rooted that an event reminding us of its context can trigger pervasive and intense anxiety. However, this embedding is psychosomatic; we could say that it is the body that is marked and that reacts.

3.   Propositions

Cognitive, affective and conative psychological elements that are not apperceptionned do exist. We refer to these as being barely mentalized. Something, the I-BM, feels solicited by these barely mentalized elements and is the center of the induced reaction that takes the form of a response referred to as secondary. The barely mentalized disturbance can have a critical level of embedding, which we call psychovisceral. The dream is, therefore, seen as the product of an attributive function of signs (a symbolizing function) in which:

- The domain is the subset of barely mentalized elements concerned with psychovisceral issues.
- The codomain is the entire set of oneiric signs.
- The image of the I-BM is the I, the main protagonist of the dream.
- Secondary responses are invariants (the rediffusion, as is, of the moods, affects, ideas, decisions and impetus of the I-BM).

In addition, we believe that deepening our understanding of how these are coded (the "symbolism of dreams") will reveal a morphism (the images of two barely mentalized elements that are linked are, themselves, linked).

4.   Discussion

4.1. Limitations

An experimental corroboration of this proposition is possible, but it is subject to the ups and downs of the method applied: here, introspection or, more precisely, apperceptive introspection. We can distinguish at least two modes of introspection. For example, let us imagine the case of a highly mentalized desire that is dashed. An initial form of introspection involves circumstantiating the process by introspection: "I had this desire, with this objective in mind. I did this, but it did not work out. I was unhappy with the result. I was angry with myself because I thought it would be good to take that approach". We could qualify this as intellectual introspection. This form of introspection develops under the influence of reason. A second form of introspection has the sole objective of recognizing real-life experiences without attempting to conceptualize them: we take note of the psychological state underlying this desire, the shock-like feeling experienced upon becoming aware of the failure and then the troubled state that accompanies the evocation that could be expressed as "and what if I was at fault?", and then comes regret, upon which we stop, and taking care push aside rational control; we settle upon the "raw" observation of a state of regret. It is this apperceptive introspection that allows us to establish links between dreams and real-life experiences and that also enables us to experiment with the principle of the rediffusion of a certain type of lived experience through dreams. However, things become more difficult to disentangle when we try to delve deeper into the details. The intertwining of multiple highly mentalized dynamics and barely mentalized intuitions (which, moreover, can commute to highly mentalized elements) can, some-

times, make the task of clarifying and differentiating through retrospective, apperceptive, introspection difficult. It is for this reason that, as yet, we cannot provide sufficiently precise or confident answers, some of which relate to questions that are, nevertheless, crucial, such as "what do bodily injuries correspond to in dreams?", or "does apperception possess an oneiric mark?".

4.2. Contributions

The model proposed here allows us to explain certain unexpected phenomena, such as:

The problem of the I-BM that cannot distinguish real from imaginary, the past from the future and the present (Ruyneau de Saint-George, 2022).

This particularity originates from the very functioning of the intuited evocation: if somebody comes to ask us to carry out some work immediately or if a third person says "tomorrow a friend will come to ask you if you can do some work", or if, upon learning that our neighbor needs help, we imagine, rightly or wrongly (but nevertheless believe it) that they will ask us to help them, in all three cases, the intuited evocations and induced responses will be the same and could be expressed as "damn, not another thing that will take up my time".

The problem of the parallel, sometimes obvious or sometimes absent, between a dream and that which occupies one's thoughts.

Certain dreams match perfectly real-life events while others do not make any reference to them. In fact, the intuited evocations are triggered by highly mentalized streams, but several streams can exist simultaneously (we may be dealing with two things at the same time). Added to this, we typically have a dominant stream, for example one related to the execution of a task, as well as an ancillary stream, surreptitious cogitations on another theme such as a parking ticket that we received the previous day. And if the dream replays the intuited evocations related to the dominant stream, we will have the impression that the dream matches real-life events. However, if the dream replays the intuited evocations via the secondary cogitations, the dream will appear to be somewhat disconnected from "what actually occurred"; there will be no mirroring of it as in, for example, the turmoil following an error committed while carrying out a task.

4.3. Further Questionings

- The model proposed here provokes a novel question: how is it that a dream appears as continuous when it is actually replaying evocations that are, in essence, discontinuous? The dream is, in fact, phased and can, therefore, be easily structured into scenes, as shown in Ruyneau de Saint George, 2016b.
- The second question relates to the concept of the I-BM: how can we integrate it into a general conception of one's psychology? This question, however, is beyond the scope of the present study.

5.   Conclusions

We conclude by looking back at the mathematical reinforcement that structures the work presented here. We borrowed from concepts in the theory of ordered sets (magnitudes, in-

tensities, levels of embedding) in the context of referentials (whose components are cognitive, affective and conative); these are sets that can be distinguished, one from the other, by specific laws that outline their intrinsic dynamics (barely mentalized or highly mentalized dynamics).

We also applied functions permitting us to relate these sets (as in the possible morphism between the entire set of barely mentalized elements with psychovisceral outcomes and the entire set of oneiric signs or the apperceptive function that expresses the commutation of a barely mentalized element into a highly mentalized one). Other operations exist also, such as deliberation, which, based on operands, produce a conation. We have no doubt that we will find other functions that will allow us to relate psychological elements and quantifiable, physiological elements, thereby making a quantifiable conception possible. But, for the present, suffice to say that this mathematical reinforcement provides a structuring framework.

Acknowledgement

References

Ruyneau de Saint-George, P. (2016a). Regarding affects and imagery in dreams. International Journal of Dream Research, 9 (1), 93-95.

Ruyneau de Saint-George, P. (2016b). Dreams and reoccurence of feelings. International Journal of Dream Research, 9 (1), 96-99.

Ruyneau de Saint-George, P. (2017). Oneiric bizarreness and continuity between waking and dreaming. International Journal of Dream Research, 10 (1), 83-87.

Ruyneau de Saint-George, P. (2018). The Function of dreams – An Exploration of Certain Elements for Consideration. https://www.researchgate.net/publication/328173069_The_Function_of_dreams_-_An_Exploration_of_Certain_Elements_for_Consideration

Ruyneau de Saint-George, P. (2022). I dreamt that I walked, slipped and fell. What is this "I"?. International Journal of Dream Research, 15(1), 171-173.