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UNEXPECTED POSSIBLE. A BUILDING-BLOCK APPROACH TO SPIRITUAL AND RELIGIOUS EXPERIENCES REVISITED

ABSTRACT

Both spiritual and religious experiences express an "unexpected possible happiness". Unexpected is defined as a recognition of contingency. Possible is defined as transcendental openness towards possibilities that are considered ultimate. Happiness as a transcending anticipation of ultimate possibilities. Spiritual experiences are characterised by the recognition of contingency, transcendental openness and happiness. Spiritual experiences can be religious, but not necessarily so. Religious experiences include a reference to God as ultimate. Next, the author presents insights from neuro-psychology and cognitive science, which assist in understanding human processing of surprise in embodied, cultural and social practices. Finally, five building blocks of spiritual and religious experience are formulated. Results from empirical research are presented to substantiate the concepts presented in the building blocks and the layered structure of these experiences. The author concludes by presenting four challenges and suggestions for further research.

1. INTRODUCTION

The unexpected possible as a marker of spiritual and religious experiences is expressed eloquently in a famous quotation by Dag Hammerskjöld, in his book *Markings*:

> I do not know who – or what – asked the question.
>
> I do not know when it was asked. I do not remember answering.
> But once I answered yes to someone – or something.
>
> From that moment derives the certainty that existence is meaningful
>
> and that my life, therefore, in subjection, has a goal.
>
> From that moment I have known what it is 'not to look back',
>
> and 'not to worry about tomorrow' (Dag Hammerskjöld; translation by Nylund 2014:84).

The unexpected is expressed by a threefold "I do not know": not who or what, not when, not answering. There is no necessity in what happened. The author suggests a gradual process, followed by a sudden moment, in which everything changed ("But once …"). From that moment derives the certainty of the meaningful, as such – an ultimate life goal. For Hammerskjöld, this is a life to be lived in subjection to the message and person of Jesus.[1]

In 2015, I published an article titled "Towards a theory of spiritual and religious experiences. A building-block approach of the unexpected possible". I presumed that any theory on religious and spiritual experiences need not be in conflict with the architecture of the mind. I will use some ideas from my 2015 article, but the focus of the current article is different, namely to contribute to building the theory of spiritual and religious experiences in theology and religious studies. This article is intended to contribute to the programmatic task of rethinking our theological topics within the coordinates of the concepts of contingency, the priority of possibility, and free will (Hermans 2019a; 2019b).

What is new in this approach to spiritual and religious experiences? I differ from the approaches in theology and religious studies that define religious experience as "leading into mystery", where mystery refers to the reality that we call God. An extremely eloquent description of this approach can be found in a recent book by John de Gruchy (2013), titled *Led into*

1 Nylund (2014:85) called it an incarnational Christian spirituality: Not looking back (Luke 9:62), and not worrying about tomorrow (Matthew 6:34a).

mystery. De Gruchy writes in the tradition of the Catholic theologian Karl Rahner and Lutheran theologian Dietrich Bonhoefer.

> It is not a question of solving problems, but of participating in something that transcends and ultimately overwhelms us as we struggle with matters of life and death, love and justice, faith and hope. In the end, this is what it means to be 'led into mystery', and in the process to become more fully human (De Gruchy 2013:416).

My approach is an anthropology of above,[2] as evidenced by transcendental openness for ultimate possibilities, happiness as the transcending anticipation of the ultimate, and God as Creator of ultimate possibilities. I will construct building blocks that make it possible to distinguish different types of experiences (normal, spiritual, religious), and to see their connectedness.

A second new angle to my approach is the view that spiritual experiences are not necessarily religious experiences. People may be spiritual (defined as having experiences of an unexpected possible that is considered to be ultimate) without being religious (defined as referring to God as the ultimate). My definitions should be able to distinguish between experiences that are phenomenologically different. People report experiences that can be defined as spiritual; yet they do not refer to God as the ultimate good (Copier *et al.* 2020).[3]

Thirdly, another new aspect to my approach is that I want to define the territory of spiritual and religious experiences as open categories, not equal to the map of a specific religion. As Smith (1993) said: "Maps are not territories". We need to study maps, but

> each map is also problematic when the relevant data are considered in sufficient detail, especially because the maps are loaded with theological and philosophical assumptions that are considerably more dubious than the describable elements of the experiences themselves (Wildman 2011:73).

This will be a process, in the long run, but the territory of spiritual and religious experiences as a domain should be my academic focus. Based on

2 In an "anthropology of above", the soul is not defined primarily as a form of the body (as in the Aristotelian tradition), but as an image of the perfected spirit, "whereby we understand our capacity to know and love self-transcendentally against the horizon of infinity" (Tallon 1992:356).

3 Waaijman (2010:21) also identifies "biblical spirituality", in which the reader as a person is touched and transformed by the experience of God's mystical presence through the reading of biblical and spiritual texts. Conceptually, we define this as a "religious experience", in which the unexpected possible is connected to God.

the principle of weak rationality (Van Huyssteen 1999; Hermans 2014), I can accept that all definitions are based on arguments and ideas derived from the study of a specific religion (context of discovery). Yet I need to build a theory of spiritual and religious experiences as a category (not just those of my own religion).[4] I offer my concepts for critical reflection to members of other epistemic communities (religious studies scholars, anthropologists, Islamic theologians, and so on) as a context of justification.

A fourth leading idea is that definitions of spiritual and religious experiences are distinctive and connected to the totality of personal and societal life. I reject the theological idea that religious experiences – and specifically, Christian religious experiences – are a *sui generis* category. This presumption of a *sui generis* approach is that an experience is considered a class in itself, not commensurable with any other type of human experience (Schüssler-Fiorenza 2001). Why should we avoid defining religion (and religious experiences) as a *sui generis* category? First, it tends to reify a given historical status quo of a specific religious tradition as our accepted concept of religion and/or spirituality, ruling out all possibility of change and innovation. Secondly, to define all religious phenomena in terms of one's own religion is a form of religious imperialism or religious colonialism. Thirdly, our definitions need to plot the narrow course between the Scylla of distinctiveness, which is what isolates religion from society and everyday life, and the Charybdis of integration, which leaves the phenomena of religion and spirituality indistinguishable from other cultural phenomena ("Everything is religion!" – Hermans [2014]).

In Section 2, I develop a theoretical framework based on four concepts: contingency, transcendental openness, happiness, and God as Creator. In Section 3, I describe core ideas of the theory of predictive minds, as developed by neuropsychology and cognitive science. How do human beings as embodied, knowing and feeling agents process surprise or unexpectedness in being directed to the world in action and practices? In Section 4, I formulate five building blocks of spiritual and religious experiences. In Section 5, as my concluding remarks, I formulate several challenges that suggest a need for further research to develop the building block approach presented in this article.

2. THEORETICAL FRAMEWORK

I begin this section by defining ontological contingency and distinguish between different modes used by human beings to handle contingency

4 Unless we consider our theological concepts to be ***sui generis*** concepts (see below).

(2.1). Next, I define transcendental openness as experiences of the absolute possible, and passions of the heart as the interwovenness of felt processes, and a directedness towards the absolute possible (2.2). I then elaborate on the idea that happiness is the experience of absolute fulfilment, and the termination of the absolute possible (2.3). Finally, I present a concept of God as the Creator of human beings who can experience new beginnings that are considered to be ultimate (2.4).

2.1 Contingency

Contingency refers to an awareness of the unpredictability and uncertainty of human existence. I first define ontological contingency as a philosophical concept, and then refine it from the perspective of Wuchterl's philosophy of religion. Finally, I describe three modes for handling contingency.

Contingency concerns the appearance of an event. The essence of this appearance is that it is unexpected, new (by definition), and different from what we have thought previously. We could describe contingency as "what is not, from the possibility of being" and "what is, from the possibility of not being".[5]

Contingency is an indication of man's mode of being (ontology). In an ontology of contingency, the general form of man's mode of being is thought of as the singular, *i.e.* the unknown, unexpected, different or other.[6]

> The singular event is par excellence that which escapes the principle of sufficient reason, and which can only be found outside its boundaries (Van der Heiden 2014:16).

"Sufficient reason" refers to the principle that there is a reason, cause or grounds for why *"x"* is the case (being), and why *"x"* appears in this specific form (so-being). The essence of being in an ontology of contingency is the event:

> The event concerns the singular occurrence by which our world changes, since it interrupts something in our world or interjects something new in it (Van der Heiden 2014:17).

Characteristic of an "event" is the emergence of a possibility that was not foreseen, and that cannot be reduced to the factual. Necessity

5 This formulation is from the philosopher Giorgio Agamben, quoted by Van der Heiden (2014).

6 See also the title of Wuchterl's (2011) book, ***Koningenz oder das Ander der Venunft*** (translation: "Contingency, or the Other than Reason"). "Reason" refers to what can be explained by what is common and general.

guarantees order; negating necessity means that there are disruptions in the order, and these lead to contingency.

The German philosopher Kurt Wuchterl attuned this philosophical concept of contingency to the field of religion. He defines contingency in a religious-philosophical frame, as follows:

> A personal conviction is religious-philosophically contingent if and only if the facts addressed in the conviction are judged to be ontologically contingent; moreover, [if] that state of affairs resists all attempts by human action to eliminate the present non-necessity; [if] this fact is also accompanied by existential interest, and finally, [if] the circumstances of the person involved trigger the need to deal with the phenomenon (Wuchterl 2019:147).

The word "conviction" should not be misunderstood as being used in the sense of a belief or idea, but as a personal view based on a subjective interpretations of events.

The first marker in the definition is ontological contingency, as introduced above.[7] Secondly, a human agent cannot eliminate, by some action, the non-necessity implied by ontological contingency. For example, a person is born White or Black, and lives in a society that struggles with race reconciliation; these facts are contingent, and this non-necessity cannot be undone. Thirdly, there is an existential interest in this experience of contingency. It matters to a person, in the sense that an event may puzzle a person as to what is the meaning of life. Questions regarding the meaning of life go beyond a specific situation and encompass all of existence ("to be or not to be"). Fourthly, the event gives food for thought in a compelling way. A person experiences a drive to deal with it reflectively, because s/he cannot let it go (Wuchterl 2011:37).

People deal with contingency differently. Wuchterl (2011:40-44; 2019:175-176) identifies three modes. The first mode is "mastering contingency" (*Kontingenzbewältigung*), or the "denial of contingency". The situation is explained by referring to certain causes and/or pointing to actions that the person has or could have executed to turn this situation into a necessity. The second mode is "acceptance of contingency", which is described by the four characteristics of the definition (above). The third type of reaction is called a "contingency encounter" with what is other than reason in the event (*Kontingenzbegegnung*). "Encounter" refers to an opening up for what is beyond the limits of reason, or for what Wuchterl

7 The first element is the so-called epistemic aspect of the definition (Wuchterl 2011:36). It refers to an actual possible event, and not to a mere logical possibility (Hermans 2019a).

calls "the Other of Reason" in the title of his 2011 book. For Wuchterl, this "Other of Reason" can be religious or non-religious.

> For Kant it is things in themselves [*Dinge an sich*], for agnostics it is the unknown, and for Christians the religious dimension of the encounter with God (Wuchterl 2019:175).

2.2 Transcendental openness towards ultimate meaning

There is no transcendental openness without an acknowledgement of contingency, which implies recognition of the limits of human reason in providing an explanation scheme for the event. Transcendental openness refers not to something given, but to an unexpected possible which is considered to be ultimate good; and the actuality of this ultimate good, in a paradoxical way, is what cannot not be. The ultimate good is the ultimate of my existence, and the possibility not to be is set aside. Finally, I define a specific mode of transcendental openness, namely the passions of the heart. This idea conceptualises the interwovenness of feelings and the transcendent as the ultimate possibility. Joas (2008:7) defines self-transcendence in the following way:

> Experiences in which a person transcends herself, … of being pulled beyond the boundaries of one's self, being captivated by something outside of myself, a relaxation of, or liberation from one's fixation on oneself.

What is new, in the experience of transcendental openness compared to contingency, is that transcendental openness refers to the actualisation of new possibilities (Wuchterl's "Other of Reason"). Wuchterl defined this mode as a "contingency encounter" (see above). As indicated earlier, contingency is marked by the *event*. The event offers an alternative to the principle of reason. "To think the event is to think contingency – as the potentiality of being otherwise" (Van der Heiden 2014:18). When we state that in the event (new) possibilities become actual, there is still the possibility of being otherwise, which is characteristic for contingency. In other words, the actualisation of the possible could also not be. In the experience of transcendence, the potentiality not to be is set aside if only for a moment!

> In the actualisation of potentiality, the potential not to … is set aside. To actualise is a 'nullification' of the potential not to be,"

that is, "when nothing in it has the potential not to be and when it can, therefore, not not be (Van der Heiden 2014:240).

How is this potential-not-to-be removed or set aside? Joas (2008:7) provides a clue by characterising self-transcendence using the German word *Ergriffensein*, that is, being apprehended, or being captured. Experiences of self-transcendence are experiences of decentring, rather than attempts made by a self that fully intends to remain unchanged (Joas 2008:14). What being captured embodies phenomenologically can best be understood by examining the experience of a person who is overcome by love.

> We do not choose the object of our love; it is the object of our love that has chosen us. Love is 'a volitional necessity, which consists essentially in limitation of the will' (Frankfurt 2004:46); in other words, we cannot 'not love' (Hermans 2017:42).

The loving person cannot "not love"; that is, there is no potential not to love. The "surrender" to the object of love does not happen on the basis of a choice (*i.e.* a reflective action), or an act of our will (*i.e.* by our control). The person gives him-/herself wholeheartedly (*i.e.* with a passion of the heart – see below) to the object of her/his love. The potential-not-to-love is set aside in the process whereby the person is seized by the object of her/his love.

Transcendental openness is characterised by contingency, *i.e.* the potentiality of the ultimate possible that emerges unexpectedly. In such an event, where the potentiality of the ultimate possible becomes actual, human beings are liberated of the potentiality not to be. A person cannot but give her-/himself to this ultimate possible. In this experience of "willing unwillingness", in which a human being is liberated from the impediments of choosing and acting, the potential not to be is "set aside".

The notion of passions of the heart refers to the interwovenness of transcendent openness towards the absolute, and human dispositions of deeply felt directedness to the world (Hermans 2020). Being able to see possibilities that are experienced as absolute shows that man is a being gifted with spirit (*logos*). On the level of the spirit, human beings are able to project completely abstract values such as love, peace, health, justice, beauty, and truth.

> World is first of all distinguished from environment in that not only the real, but also pure possibilities belong to the World. Such possibilities are not grasped by feeling but are seen by thought. The *logos* indeed, among other things, the possibility of grasping, ordering and fixing abstract connections in concepts and categories, and on that basis, advancing to new insights (Strasser 1977:246).

Why does Strasser stress this connection between feeling and thought? The elementary foundation of experience is constituted in dispositions and not in perceptions (Strasser 1977:182). Dispositions are felt models of readiness that regulate our directedness towards action and give continuity to existence (Strasser 1977:275). In human dispositions of the heart, there is an intimate relationship between spiritual and felt processes. The human being, as *animal rationale,* is marked by embodied feelings and a spiritual desire for the absolute.[8] The category of the heart indicates the interwovenness of dispositions and a desire for the absolute (the life of the spirit).

The most complex mode of dispositional directedness is a basic comportment (a way of life; ethos) that expresses itself as a preparedness of the will to act in a specific way.

> By basic comportment we understand a structure of attitudes, convictions and modes of comportment which is expressed in a relatively constant readiness for determinate modes of behaviour (Strasser 1977:279).

Passions of the heart are a basic comportment towards the transcendent as ideal possibility, a surplus of meaning, or human flourishing. This ideal possible is felt as the reality of one's life (see above). The overwhelming power of the ideal possible gives one an enduring power to transform social life forms and institutions to operate in line with this absolute good.

- Passions are characterised by a transcending mode (Hermans 2020:18-19). They absolutise a region of value, which affords fulfilment of life. The absolute (or absolutised) good surpasses everything that man has experienced previously, in fullness, perfection, and value.
- Passions are marked by a passivity, which refers to an experience of being apprehended, being overpowered, being mastered. When a human being is drawn to the absolute good, s/he can "respond" in no other way than in the mode of unreserved receptivity.[9]
- Passions have a life in organising and concentrating power. A person who is passionate is able to dedicate him-/herself unreservedly to a single thing; in other words, the meaningful and satisfying as such.
- Passionate concentration has an ethical nature, and always has as its object a person's accustoming to a definite region of value such

8 "A finite spirit co-naturalised to a horizon we can experience only non-objectively in a desire for the absolute and then can think and will in the substitutes of the heart that we call concepts and will-acts" (Tallon 1992:344-345).

9 On the other hand, Strasser (1977:295) stresses that this "being apprehended" is always simultaneously a "letting-oneself-be-apprehended".

as peace, care, sustainability of nature, or love. This region of value emerges in concrete bearers of value; for example, when care is manifested in caring for sick people or for migrants.

2.3 Happiness

When does a person know that s/he is oriented towards the ultimate possible, as the fulfilment of life or ultimate goal of life? When that person feels happy! Happiness refers to an experience of the absolute termination of the total activity of man in his felt connectedness to the world (Wood 1977:34).

> Happiness consists in a transcending anticipation. It is a deficient anticipation of the experience of fulfilment, a precision limited to single aspects, an imperfect presentment of the final completion of our own existence (Strasser 1977:373).

Happiness has different characteristics, which can be present in the transcending completion of a person's felt connectedness to the world. Strasser's claim is that all characteristics play a role in happiness. But, in a concrete manifestation of happiness, some characteristics may be stronger than in another manifestation.[10]

First, happiness has the characteristics of the *release* of a transcending moment, *in* worldly situations. It is a deficient anticipation of fulfilment in the form of a certain, concrete, real infinity; nevertheless, it is felt as genuine fulfilment.[11]

Secondly, happiness is thus characterised by an element of rapture. A person cannot experience the concrete emerging infinite without going outside of him-/herself.

> The 'object' of beatifying experience is so constituted that it overpowers the individual subject by its richness, inexhaustibility and boundlessness (Strasser 1977:370).

Thirdly, happiness is the experience of harmony in the world, in an absolute sense, and the harmony of my place in this whole. For harmony, a certain balance is required; an appropriateness of all proportions, which

10 This implies that, for Strasser, happiness can have different forms: a release, contentment, harmony, rapture, or a risk. Each of these forms is connected to different embodied sociocultural practices. In section 3 of this article, I elaborate on this idea, using the work of Ferguson (1991).

11 For example, in the act of love, happiness is achieved only when the loved one has become a permanent and inherent element of the person's own being: "In the event of love, our heart is opening itself to the good of our object of love in a perfect or unlimited way." (Hermans 2017:44).

demands that passionate impulses must be obedient to the correct ratio. An example of this is the harmonious experiences of happiness resulting from being connected to Nature.

The fourth characteristic of happiness is contentment.

> The experience of happiness will always remain this concrete experience, and thus will be limited by his capacity to assimilate the inexhaustibility of the good-in-itself (Strasser 1977:372).

It refers to feelings of peace with oneself, and to keeping life within the limits set by the conditions in which the concrete good in life may be experienced.

Finally, happiness is a risk and a chance. It is an opportunity that the person must make use of; but at the same time, it is a risk. A person can participate in all kinds of practices and opportunities that can release a transcending moment of happiness, but it is a contingent experience, not a necessary experience.

2.4 God as Creator

"That a beginning be made, man was created" (Vecchiarelli-Scot & Stark 1998:2637). In this section, I argue that the distinction added to the unexpected possible in a religious experience is the idea that new beginnings of ultimacy are grounded in the idea of a Creator God. My line of argument is based on the concept of natality proposed by the philosopher Hannah Arendt, which is her translation of the idea of *initium* employed by Saint Augustine.[12] I choose this line of argument, because (as I will show) it does justice to the contingency and freedom (free will) of human beings within their relationship to God and it prioritises possibility above actuality in human subjects in their relationship to God.

Happiness is neither an innate idea nor a future state we hope will emerge. It is based on memory and gratitude. It is not an innate idea given to us, because we do not know what ideal happiness is. Neither is happiness the result of our hope, because our anticipation of future

12 The concept of "natality" was developed by Arendt in her interpretation of the concept of love in the works of Saint Augustine. This connection to Augustine has been largely ignored in the literature. Vecchiarelli Scott & Chelius Stark (1998), in their edition of Arendt's thesis (***Love and Saint Augustine***) gave insight into this connection. Arendt started to rework her original thesis on Augustine several times in her life, but never finished the project. A last remark: The context of the concept of "natality" in Arendt's reworking of her thesis on Augustine is more existential (meaning of life; happiness), and less related to social and public life, as Arendt's later works were. My analysis is limited to the existential understanding of "natality".

happiness may be in vain. Happiness is based on our memory of God as Creator, who is outside us and came before us.

Why memory?

> The decisive fact determining man as a conscious, remembering being is birth or 'natality', that is, the fact that we have entered the world through birth (Arendt 1998:1187).

The Creator is in man only by virtue of remembrance, because creation came before our existence.

> The Creator is in man only by virtue of man's memory, which inspires him to desire happiness and with it an existence that would last forever: 'Hence I would not be, my God, I would not exist at all, if you were not in me,' namely, in my memory (Arendt 1998:1145).

In life, happiness is not something that lasts forever. Yet we desire an ultimate happiness that does not perish. It would be futile if that desire was grounded in ourselves. However, in our memories, we encounter a limit to what was "before", namely the fact that each person does not exist of his/her own accord. The Creator is both outside man, and before man.

> Seen from the perspective of human life, this Being has as its outstanding characteristic that it was before life began, will be when life has passed away, and therefore lies ahead of it in the future. Being relates to human life as that from which it comes and to which it goes and is 'before' (ante) man in the twofold sense of past and future. Through remembrance man discovers this twofold 'before' of human existence (Arendt 1998:1168).

In order to have a future, human beings must have a beginning that was not there before. Because the new beginnings have no causal ground which explains that they must be, Arendt considers them as "wonders (or miracles) which save the world from coming to an end, i.e. having no future" (Arendt 1998:247).

Does this relationship with God as Creator do justice to contingency and free will? In order to answer this question, we need to connect the idea of natality to Augustine's concept of "*initium",* which he distinguished from "*in principio*" (in the beginning).

> *In principio* refers to the creation of the universe – 'In the beginning, God created the heavens and the earth' (Gen. 1:1). However, *initium* refers to the beginning of 'souls', that is, not just of living creatures but of men. Augustine writes that 'this beginning did in no way ever

> exist before'. In order that there be such a beginning, man was created before whom nobody was (Arendt 1998:1255).

The first beginning of a living creature is the result of the governing role of the Creator. *Initium* is not about the first beginning, but about the possibility of new beginnings or natality. With the creation of man, the Creator initiates the possibility of novelty (*novitas*), of contingency, and free will.

> Hence, it was for the sake of *novitas,* in a sense, that man was created. Since man can know, be conscious of, and remember his 'beginning' or his origin, he is able to act as a beginner and enact the story of mankind (Arendt 1998:1261).

"Possibility" is a capacity of human beings; that is, a capacity of individuals who are born. Without natality, there would be no human freedom, and no new beginnings. And new beginnings are never necessities, but "miracles" – which can, but need not happen (*i.e.* they are contingent). To live in God as Creator of the human soul means to live in or from the gift of the power of possibility. The first beginning considers the actuality of living things existing. New beginnings (natality) regard the possibility of human souls achieving happiness, which sustains "in eternity". To live in or from the Creator grants a certainty to the human soul's quest for happiness.[13] This certainty is grounded in the belief of a moral order, which contains the message that "[a]ll is not vanity in this Universe, whatever the appearances may suggest" (James 1891:38). The affirmation of this order in life, in which eternal things are the better things, bestows on people a happy state of mind.

3. PREDICTIVE MINDS IN EMBODIED, CULTURAL AND SOCIAL PRACTICES

Can my concepts for spiritual and religious experiences pass the test of what is known about human processing of surprise in the social sciences? This is an important question, in view of my aim to develop a building-block approach to the way in which human beings process spiritual and religious experiences. In this section, I will present some core ideas from scholars in neuroscience and the cognitive sciences that are moving in the

13 Where Arendt refers to God as Creator, as the ground of new beginnings, the theologian Nicholas Cusanus refers to God as the power of pure possibility (***posse***). Cusanus does not connect God to the actualisation of happiness, but to its possibilisation (Hermans 2019a).

direction of a unified theory of mind, culture, and action. According to the philosopher Andy Clark (2012:201),

> [p]erception, action, and attention, if these views are correct, are all in the same family business: that of reducing sensory prediction error resulting from our exchanges with the environment.

In view of my aim, I focus on processing unexpected events, surprise, existential relevance, memorability, learning, and motivation.

3.1 Why does it happen?

Prediction is about understanding the cause of what happens. The primary objective of the predictive brain is to infer the causes of its sensory input by reducing surprise, in order to allow it to successfully predict and interact with the world (Van den Ouden *et al.* 2012). Suppose you enter a room, and switch on the light. After a split second, you hear a bang, and the light goes out. You infer the possible cause of what happened from previous experiences. The bang is a prediction signal (as a representation of a short circuit, constructed from past experiences), which is compared with incoming sensory information. The result of this comparison is a prediction error.[14] If the perception matches the prediction signal, there is no prediction error. We are not surprised that it happened:

> Prediction errors can be encoded and learned to update stored experience, which is then available for use in future predictions (Hutchinson & Feldman Barrett 2019:281).

Prior expectations may differ between different people, depending on the model of the world that each has. Human beings are constantly updating prediction errors, because of the changes in the world in which we live.

3.2 Prediction errors

Recent theory in neuroscience and the cognitive sciences assumes that the coding of prediction errors (PEs) is a ubiquitous strategy in the human brain and mind. This idea is based on the observation that predictive signals appear throughout the brain, although "the exact content and nature of these error signals vastly differs between areas and functional specialisations" (Hutchinson & Feldman Barrett 2019:548-1).

14 "Prediction error, i.e. the difference between the true and estimated probability distribution of the causes" (Hutchinson & Feldman Barrett 2019:548-4).

> Perceptual and cognitive PEs report the degree of surprise with respect to a particular outcome, and on the other hand motivational PEs which also report the valence (sign) of a PE, i.e. not only whether the outcome was surprising, but also whether it was better or worse than expected (Hutchinson & Feldman Barrett 2019:548-2).

Predictive errors in perception were illustrated in the light-switching example. In cognition, predictive errors refer to higher order representations that are sensitive to predictions and surprise. A simple illustration: If we see objects moving through space, we are surprised, when they do not fall to the ground. PEs in perception and cognition reflect the mismatch between the prediction error and the outcome: If the size of the mismatch is greater, the surprise is bigger.

PEs in motivation and learning not only reflect the size of the mismatch; the direction of the mismatch is also important. Direction reflects whether an outcome is better or worse, related to the value of something.

> An agent learns the value of actions and stimuli in a complex environment; and signed PEs that contain information about the direction in which a prediction was wrong, serve as a teaching signal that allows for updating of the value of the current action or stimulus (Hutchinson & Feldman Barrett 2019:548-4).[15]

Motivation and learning are stronger when the person values the desired outcome more.

3.3 Main functions of prediction errors

There are three main functions of PEs (Van den Ouden *et al.* 2020:8). First, perceptual PEs help us rapidly make sense of sensory inputs, *i.e.* perceptual inference. They are crucial to shaping internal generative models of the world that allow us to interact with the world.

Secondly, sensory and higher order cortical PEs can alert us to unexpected events and allow for reorienting responses (Van den Ouden *et al.* 2020:6). The magnitude of the response that a stimulus evokes is directly determined by how unexpected it is. Salience arises quite naturally from predictive coding theories of neural processing.

15 "Salience arises quite naturally from predictive coding theories of neural processing, since the amplitude of the response a stimulus evokes is directly determined by how unexpected it is" (Van den Ouden 2012:14). The role of salience-encoding neurons suggests that dopamine plays an important role in alerting, orienting, and arousing responses. Dopamine makes us feel satisfied and rewarded, which connects to the feeling of happiness.

Thirdly, reward PEs in the brain lead both to direct motivational effects in terms of action selection and to long-term learning, as a result of the selection bias of reinforced actions (Van den Ouden *et al.* 2020:7). A strong positive-reward PE will strengthen the associated action, whereas a negative-reward PE would inhibit actions. This results in a selection bias towards the positively reinforced actions in the future.

3.4 Surprise scenarios

People learn about their environment by explaining it. Very surprising events are more memorable than less surprising events. Why? Surprise increases with the explanatory work required to resolve it, as this involves elaborations that are known to foster memorability (for example, inferring causal structure) (Foster & Keane 2019:75). When people encounter surprising, anomalous or unexpected events, they are prompted to explain these anomalies, a process of causal elaboration that produces richer memory encodings, thus improving the memorability of the focal event (Foster & Keane 2019:78). Two distinct classes of surprise scenarios can be distinguished:

> Some surprising events are resolved by pre-packaged, explanatory knowledge (i.e. known surprise scenarios), whereas others are truly surprising (i.e. less-known surprise scenarios that require the construction of explanations from scratch) (Foster & Keane 2019:78).

Surprising outcomes (less-known outcomes) that are more difficult to explain and recalled more accurately than less-surprising outcomes that require little (known outcomes) or no explanation (normal).

3.5 Predictive processing

Predictive processing should be viewed as an integral part of a situated, embodied, and distributed concept of agency. In trying to minimise prediction errors, agents create loops through action and the environment (Clark 2013:13). This taps into the idea of culture as patterned actions, which we share with others.

> Such a perspective, by highlighting situated practice, very naturally encompassed various forms of longer-term material and social environmental structuring. Using a variety of track, tools, notations, practices, and media, we structure our physical and social worlds so as to make them friendlier for brains like ourselves. (Clark 2012:15).

4. THE TERRITORY OF SPIRITUAL AND RELIGIOUS EXPERIENCES

How do we define spiritual experiences? What is the relationship and difference between spiritual and religious experiences? Our theoretical assumption is that the unexpected possible leading to ultimate happiness (bliss, joy) is common to both spiritual and religious experiences, but that only religious experiences refer to God as Creator of human beings (Hermans 2019a). The second presumption is that these experiences are embodied human experiences that include the brain, mind, culture, and practices of human beings. The same person can have both spiritual and religious experiences, but not all experiences are considered spiritual or religious. We will distinguish them from normal experiences by identifying markers for each experience and distinguishing between which are the same and which are different.[16] Thirdly, we presume that a limited set of processing modules are incorporated in certain types of experiences and not in others. This leads to the idea of a building-block approach to experiences.

First, two definitions, as "advanced organisers" that will support the ensuing explanation.

- Spiritual experiences are existentially relevant, unexpected, ultimate possibilities, marked by happiness, or the tragic loss of happiness, sometimes (but not necessarily) objectively strange, and embodied in sociocultural practices.
- Religious experiences are spiritual experiences, or usage-dependent non-spiritual experiences, in which people relate human acting and suffering to the name of God.

The territory of religious and spiritual experiences (RSEs) will be drawn through five steps. First, I distinguish normal experiences from spiritual experiences, which are existential, unexpected, and refer to ultimate possibilities. Secondly, within the category of unexpected possible, I distinguish between anomalous and spiritual experiences. Spiritual experiences are always ultimate, but not necessarily anomalous. Thirdly, within ultimate experiences I distinguish an orientation type and a transformation type. Fourthly, I distinguish between spiritual experiences that report a feeling of happiness, and those that report an absence or loss of happiness. Fifthly, I distinguish religious from spiritual experiences: religious experiences are spiritual experiences connected to God as the ultimate.

16 This is in line with our rejection of a ***sui generis*** approach to spiritual and religious experiences (see introduction).

As a first step, I distinguish normal experiences from unexpected and existentially relevant experiences. Normal experiences are experiences, in which perceptions, understanding, and felt processes of the world give no signals that conflict with the predictions that people have of a situation. Normal experiences reflect a calm consciousness, no upheavals, no (or hardly any) surprise, and no emotional stress. Unexpectedness or surprise refers to a mismatch between what we predict will happen and what actually happens. The bigger the mismatch, the greater our surprise is likely to be. Not only the size of the mismatch is important, but also the direction (negative or positive). For example, a person observes a dark stain on his/her skin, and relates this observation to the expectation that a dark stain signals cancer. Good health and a long life are of great value to this person. This implies that the unexpectedness is deeply negative, and existentially relevant.

We distinguish situational from existential relevance (Scherer-Rath 2007). Situational relevance is restricted to a specific situation, and the realisation of a specific goal that can be reached (or not). The goal could have great value to a person. For example, if my goal is to pass an exam, the situation could arise that I fail. But if the impact of this negative event fades away, then it has only situational relevance. The same event could also have an existential relevance and lead to a crisis about the meaning of life. Existential relevance can be defined as the subjective experience of discordance between my actual self and my true self (McNamara 2009). Human beings are the only living organisms that seem to experience this discordance. It can be experienced in a cognitive mode (not knowing my true self); an affective mode (feeling bad, unhappy, without hope), or a volitional mode (when the will is defective) (Hermans 2015). The first scholar to reflect on the divided self and the need for unifying was William James, in lecture VII of his *Varieties of religious experience* (1902/1961:114-142). According to James, we all have experiences of a divided self, notably temptation, weakness, internal conflicts, and flaws in willpower.

In their research, Copier *et al.* (2020:120) measured unexpectedness as contingency acceptance:

> People formulate the non-necessity of an event, realise that it could have turned out differently, and yet it actually happened.

Secondly, they pose existential questions, and realise that they do not have answers that fit. The unexpectedness and existential relevance lead to an interpretation crisis. What happened does not match our conception of a true self, and the ultimate meaning of life (the good life with and for others). We know from research into the interpretation crisis of cancer patients

that every patient tries to explain the onset of the disease by using his/her own explanation scheme for the cause (Van Dalen 2019). Among other causes, the cancer patients suggested an unhealthy lifestyle (smoking), stress, genetic predisposition, manipulated food, and environmental pollution (Van Dalen 2019:49). By default, people use causes considered to be plausible to explain the origin of the disease. Characteristic of the acceptance of contingency is that these explanation schemes are rejected as insufficient grounds. However, if a cancer patient perceives a match between the fact that they have cancer and the explanation scheme of the cause of this cancer, s/he does not interpret the fact that s/he developed cancer as a contingent event.

The second building block adds the element of "possibility" to experiences that are unexpected and existentially relevant. One needs to distinguish between two types of possibility: the first is marked by objective strangeness, and the second by a subjective significance of ultimate concern (absoluteness, the sublime, a surplus of meaning, human flourishing).

Anomalous experiences are marked by objective strangeness, a violation of causality as empirically tested, and sometimes a feeling of being out of control (Hermans 2015). Anomalies include unusual natural events (earthquakes, eclipses), unusual specimens of living creatures (an animal with five legs), unusual sensory perceptions (extrasensory perceptions, past-life experiences, contact with the dead), or "wondrous" events that seem to defy natural laws (miraculous healing, psychokinesis) (Hermans 2015). Anomalous experiences are based on the same mechanism of predictive processing as described earlier. What

> we see is not the world as it is, but the world as simulated by the predictive brain filling in all the information gaps (Geertz 2013:39).

The plasticity of the brain, mind and body is so enormous that many report this type of anomalous experience.

The second type comprises ultimate experiences, marked by the subjective significance of absoluteness, finality, and wholeness. Transcendental openness enables people to open themselves to what is considered of ultimate value. Passions of the heart are a transcending awareness and desire towards the ultimate that is felt as a reality in or of one's life. Passions give a person an enduring power to transform his/her personal and social life in line with this absolute good. Passions of the heart are marked by a transcending movement towards the absolute,

receptivity (being apprehended), a life-organising and life-concentrating power, and an ethical nature.

Some spiritual experiences are also anomalous experiences, but the reverse is not true: not all anomalous experiences are spiritual.

> Some anomalous experiences (such as extraordinary perceptions, telekinesis or epilepsy) have no ultimate meaning for persons, in which case they are not considered spiritual (Hermans 2015:12).

The third building block is to distinguish two different forms within the subjective experiences of ultimate concern: an orientation type and a transformation type (Wildman 2011:85). Orientation refers to ultimate concerns regarding the self, others, and the world – in other words, a conception of what lies beyond the divided self. In happiness, the ideal possibility (transcendence) is felt as the reality of one's life. Where orientation refers to the fact that people have found an ultimate meaning in life (see Dag Hammerskjöld: first gradual, and then suddenly), transformation refers to the gradual process of growing further in unification with the ideal possibility. Ultimate meaning has a life-organising and life-concentrating power (see passions of the heart, above). How this can shape one's life is something that needs to be learned by imitation of examples, from engaging in practices that embody this ultimate meaning, and through spiritual guidance (Hermans 2013). "Transforming" means that the self gradually becomes more transparent to the ideal possibility.

Hermans and Kornet (2020) reported on the passions of the heart of general practitioners (GPs), in which ideal possibilities (ultimate) are felt as a reality of or in one's life. In an orientation type, the focus is on receptivity (event) to the ultimate meaning of life and the motivation to act towards transformation of the self and society. In their findings, the authors report the story of a GP who voiced an ultimate concern of "being near in a supportive manner". In accordance with this ultimate value, the GP wanted to become a supportive general practitioner gradually, during his training. But in practice, he suddenly felt the ultimate value of "being near in a supportive way" as a vocation.

> Then I really had the feeling: those people cannot do without me. … And that is something special, I must say (Hermans & Kornet 2020:193).

In a transformation type, the focus is on a lifelong process of growth of self-awareness of the presence of a transcending ultimate. An example of a transformation type is Cloninger's concept of spiritual character traits, used by Hermans and Anthony (2020). Being coherent, in the sense of a

unified self, means that our character traits are focused on wholeness, fullness and ultimacy, and keep us aloof from conflicts in ourselves (Hermans & Anthony 2020).

The fourth step is to distinguish between spiritual experiences that report a feeling of happiness, and those that report an absence or loss of happiness. We defined happiness as the transcending anticipation of the experience of a beatifying fulfilment of what is considered as ultimate possibility (section 2.3). One feels the actual presence of what is considered ultimate possible, and the experience of fulfilment witnesses the reality of the ultimate possible. "Happiness is possible because it is actual; it is actual because it is experienced" (Strasser 1977:373). The reverse is a tragic absence of happiness. For example, a person passionately longs for love, justice, and freedom, but it is not experienced as actual. There is a passion of the heart, but the person is not experiencing the actuality of the ultimate possibility. And because it is not actual, is feels as not a possibility in my life.

What defines this tragic experience? First a recognition of contingency, *i.e.* the person experiences the situation as completely unexpected and no explanatory scheme can explain why it needs to happen (Van Dalen, Scherer-Rath, Van Laarhoven, Wiegers & Hermans 2019:234-235). Secondly, the tragic person feels powerless, *i.e.* the inability to prevent the loss of what is regarded as ultimately meaningful (Van Dalen *et al.* 2019:237). Thirdly, the person cannot relinquish the meaning of the ultimate in his life with and for others (Van Dalen *et al.* 2019: 237). Because the ultimate possibility is not experienced as actual, the person feels an absence of happiness. Fourthly, the person uses a moral scheme to measure the absence of the ultimate meaningful in his/her life. For example, the cancer patients in Van Dalen's research do not only use natural laws to interpret their terminal disease, but evaluate the mismatch between their predictions and what is actual against the moral order of existence, notably a moral scheme of punishment and reward (Van Dalen *et al.* 2019: 237). Cancer is not simply a clinical frailty of human existence; it affects the moral order of human life. There are many forms of the tragic loss of happiness if we observe the different literary forms of tragedy (Golden 1976).[17] Experiences of misfortune can be distinguished along two dimensions: pitiable and fearful.

17 We use tragic literature as source, because hardly any empirical research is done using the concepts of contingency, transcendental openness, and happiness. Most of the empirical research into experiences of tragedy are in the field of psychology. Core concepts in this theoretical psychological scheme are life goals, emotions (sadness, stress), and achievement (see Brugman 2000; Lambert *et al.* 2013).

> The term 'pitiable' is applied to situations in which a fall from happiness to misery involving the undeserved misfortune of others is depicted while the term 'fearful' refers to the same situations when viewed as occurring to ourselves (Golden 1976:32).

The first dimension "pity" indicates the degree to which the misfortune is undeserved, and "fear" refers to the degree that the same misfortune could happen to us. Can the person be morally blamed or not? Is it a saint or moral villain? Is there some intellectual error (such as a misjudgement), which anyone could make, or a gross deviation from generally known? Can I also fear to be capable of making the same fault in judgement? If the situation is characterised by both pity and fear, there are often external forces at work that drive a person to acts, which he would not normally do, or which destroy the conditions of leading a good life with and for others. Finally, tragic events can also lead to new insights (*catharsis*) in what is really important in life, and what into ultimate possibilities in life.

Next, we want to stress different modalities of happiness, defined as the enjoyment of what is considered to be the ultimate. According to the sociologist Ferguson (1992:104), the different modalities refer to different conceptions of the transcendent good connected to different sociocultural settings, in which these experiences can emerge and thrive.

> By approaching the nature of subjectivity in terms of its end, and more particularly through the notion of Happiness as its unique *telos,* religious and spiritual categories will be forced into the foreground and made the organising principle of the discussion. Happiness is not, that is to say, a fixed and unchanging condition. (Ferguson 1992:130)

Happiness is not an undefined *telos*, but the enjoyment of the soul's own perfection, *i.e.* a transcendent good. In his book *The end of happiness,* Ferguson (1992:157) presents and analyses five fundamental modalities of Happiness, namely faith, belief, morality, passion, and sensuousness. Each modality is connected to sociocultural conditions that offer fertile ground for each type of experience to grow. Each modality differs in the degree to which the transcendent good is experienced as the absolute termination of the total activity of man in his felt connectedness to the world (Wood 1977:34). *The tree is known by its fruits*: If happiness fades away and the coherence and concentration of a unified self is lost, a person may be puzzled as to whether the "ultimate", for which the soul is striving, is really meaningful as such.

For example, the passions of the heart studied by Hermans and Kornet relate to embodied practices of GPs in modern systems of healthcare,

where a clinical approach to healthcare is dominant. The researchers found four passions of the heart among the GPs they studied: personal proximity, the self-direction of the person, the whole person, and giving all people access to the healthcare they need, specifically the vulnerable (Hermans & Kornet 2020). The transcendental openness expressed in these passions of the heart "thrives" on the visits, encounters, events, and conversations that the GPs have with clients. One can observe this in the stories they tell of the effect of their passions of the heart on their work (Hermans & Kornet 2020:section 5). To put it differently, the passions live in embodied sociocultural practices of the GPs, which contrast with the dominant clinical practices of healthcare. The GPs indicate that the passions are life-organising and life-concentrating. This bestows on them strength, stability, and perseverance, which we interpret as indications of the termination of the soul's own perfection, i.e. happiness. Emotional stress and burnout are interpreted as indications that the soul is not connected to an ultimate concern.

The fifth and final building bock is the distinction between spiritual experiences and religious experiences. Not all religious experiences are spiritual, leading to an experience of the actuality of a transcending good leading to Happiness. What is more, the same religious practices (rituals, prayers, singing), in which a person expresses his/her relationship towards God, may or may not involve an experience of the reality of the presence of God as the ultimate meaning of one's life. We must thus distinguish between religious experiences that are also spiritual experiences, and those that are not.

This distinction is also an issue in several articles in this special issue. The concept of contingency receiving, used by Copier *et al.* (2020), incorporates contingency recognition plus transcendental openness. It refers to contingent events, in which a possibility of ultimacy emerges as something actual and given to the person, such as new and deeper self-understandings, insights about trust in life as being good, and insights as to what is truly important in life (Copier *et al.* 2020). Half of the cases in this research were related to God and can be defined as religious experiences. The other half of the contingency receiving cases did not relate to God as the ultimate. Following our definition, they are spiritual experiences.

5. CONCLUDING REMARKS

What road have we travelled? And what is the road ahead? My aim was to describe the territory of spiritual and religious experiences as open categories. Four concepts built the core of my theory: contingency, the

possibility of the ultimate, happiness as termination, and God as Creator. My ideas should not contradict what we know from the social sciences about human beings as embodied, knowing, and feeling agents directed to the world in action and practices. Recent developments in neuroscience and the cognitive sciences are moving in the direction of a unified predictive theory of mind, culture and action, taking into account which processes and mechanisms characterise human beings in embodied practices with regard to surprise, existential relevance, learning and motivation, memorability, and organising our lives. I identified five building blocks of a theory on spiritual and religious experiences. Each building block demarcates a difference between certain types of experience: between normal experiences and experiences of the unexpected possible; between anomalous and spiritual experiences; between orienting and transforming types of spiritual experience; between modalities of happiness, and between spiritual and religious experiences. I illustrated the building blocks using findings reported in this special issue of *Act Theologica* (Suppl. 29). I found support for the distinctions I developed between different types of experience. I think that this gives reason to encourage further research into building a more robust building-block theory of spiritual and religious experiences. Therefore, I would like to formulate suggestions for further research.

A first challenge for the development of this theory regards the different measuring instruments for the different types of experiences. We must establish a battery of instruments for measuring our building blocks. Some measurements were developed to measure a specific building block, such as the measurement of contingency receiving (Copier *et al.* 2020) or passions of the heart (Hermans & Kornet 2020). Validated instruments were used derived from other research: character traits (Cloninger) defining transcendental openness in terms of a unified self; mystical experiences, in terms of a merger with something greater and happiness (Hood); and extra-ordinary experiences, incorporating anomalous experiences which are spiritual or religious (Bainbridge) (see Hermans & Anthony 2020). The challenge is to validate the different instruments in view of the concepts and distinctions in our theory and to test their reliability.

Secondly, all experiences of transcendental openness "live" in embodied practices. Kneeling in a church embodies a different idea of the transcendent good, compared to the ultimate good of forest administrators towards sustainable nature. The challenge, on the one hand, is to understand the specificity of transcendental openness in connection with embodied practices, and, on the other, to understand generic elements

of these experiences. In our field of research, we have hardly begun this difficult task.

Thirdly, Happiness is defined as a transcending anticipation of the final completion of our own existence in a felt mode of relationship to the world (Strasser 1977:373). William James coined this the "strenuous mood": an active, driving force "for living hard, and getting out of existence its keenest possibilities of zest" (Shusterman 2012:437). Transcending goods differ in the kinds of happiness they give to human beings. It is not so much what religious and spiritual experiences claim to give to human beings, in terms of happiness, but what they deliver. I think this is a real challenge for research, because we lack good, reliable, and validated instruments that can measure happiness in the sense of Strasser's definition. Most of the instruments such as the Oxford Happiness Questionnaire (Hills & Argyle 2002) measure a psychological concept of well-being. We also need to study happiness connected to situated sociocultural practices that embody different transcending goods (Ferguson 1992). There is a strong requirement for good research on this topic.

Finally, I consider discernment as an embodied practice of spirituality (Hermans & Anthony 2020). These researchers were able to show that spiritual and religious experiences and spiritual traits, as a marker of the unified self, are strong determinants of the practice of discernment among school leaders of Catholic schools in India. This makes research into different embodied practices of discernment among different religious and non-religious groups a multifaceted object of research, incorporating different building blocks for spiritual and religious experiences.

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Contingency	Gebeurlikheid
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