Theory and History in the Human and Social Sciences

Marc Antoine Campill *Editor*

# Re-Inventing Organic Metaphors for the Social Sciences

Springer

# Theory and History in the Human and Social Sciences

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Caroline Pescatore, *Walking path through the mystical forest*, painting, acrylic on paper, 2022

*Dedicated to the readers who will enjoy the following volume, for those who will read the whole volume or some article several times and also for those who just will have a quick glance in the texts, to those who agree, to those who disagree and everyone who will be found in between.*

# Preface

## Why Organic?

### *Theoretical Understanding of Developing Systems*

All science is theoretical in its core, and all theoretical constructions are metaphoric extensions of knowledge either from another field of *Wissenschaft* ("the mind is a computer") or from everyday knowledge ("the mind is a wanderer"). Different sciences put restrictions on the terms usable for understanding ("mind is a neural network") and discount others ("mind is a poet"). The latter—over the history of the given science—become involved in some general kind of "liberation struggles." For example, the twentieth-century psychology was marked by the efforts to eliminate the deeply subjective notion of the *soul* (*Seele*) in favor of the less explicitly subjective notion of the *mind*. The meaning of the latter remained as unspecified as that of the former, but the scientists who defined their selves as those of "behavioral scientists" gained the confidence of their own objectivity of denial of their interior infinities of their souls.

As we can easily see, each of such liberation struggles from some metaphoric extensions leads to new dependencies upon the newly accepted ones. Science moves slowly through the mindscape of such acceptable, tolerable, and rejectable sign constructions of the most general domains of understanding. The barriers set to the use of metaphoric imagination keep disciplines separate—until a call for interdisciplinary synthesis opens the door to new ways of thinking. History of sciences gives us many examples—chemistry was expected to be reducible to explanations coming from physics. Once it became clear that this is not feasible, chemistry developed its own system of thought that was initially physics-like (inorganic) trying to force all organic chemical processes into that straightjacket. Once that failed—and the difference of organic chemical processes from their inorganic counterparts was recognized—the new set of organic metaphors came to use. Biology was the next near neighbor to organic chemistry—efforts to reduce biological organization to organic chemistry failed, and biology in the twentieth century developed its own theoretical

terminology that fitted *living organisms*, beyond the organic chemical processes. In the twenty-first century, it is psychology—near neighbor to biology—where the struggle for accepting the primacy of the whole over its parts continues (Diriwächter & Valsiner, 2008). That struggle entails the search for new metaphoric extensions—organic ones that go beyond the structural elaborations in chemistry (catalysis; Cabell & Valsiner, 2014). Hence the relevance of the present volume. As its editor has concisely pointed out in his Prelude, what is needed is

> A field that provides new metaphors that go far beyond the field notions generated through the traditions coming from physics. Human *psyche* is based on the biological, not physical, reality.

This biological reality is the reality of organisms which develop and maintain themselves in exchange relations with their environments (see more on open systems in Chapter "Ice Cream: An Exploration of Outsiders by Parasitological Insights" of this volume). Psychology—exactly as it has self-branded itself as a "behavioral science" over the twentieth century, and adopted the reduction of the wholes of systems to scores of "measurements" created by standardized tests—has demonstrated remarkable resistance to accepting its own qualitative uniqueness beyond physics, chemistry, and biology. The notion of the *soul* may be banished from scientific psychology—yet its re-labelled equivalents (*self*, *mind*, etc.) keep up the same obstacles to our general scientific understanding of the human ways of *being* (Valsiner et al., 2016). Re-labelling does not work—it creates an illusion of innovation.

And it is here where the powerful voices of the new generation of seekers for new perspectives—gathered in this volume—make their contributions. Notably these contributions are heterogeneous—and need to be thus. The ideas expressed in this volume are starting points for new possible directions of growth. There are no final solutions—but a rich set of opportunities that can be further explored.

It becomes clear from reading this book that psychology needs to proceed beyond biological focus on systemic unity in one particular aspect absent in the biological world, but central for psychological systems. When the psychotherapy client (in Chapter "Biocenosis of the Self: The Dynamic of Relationships") expresses the wish

> I want to grow like a plant

there is a focus in this metaphoric extension that transcends the biological domain. It is the simple human self-reflexive intentionality claim "I *want*" that is absent in plants. Human beings create their needs—"I want X,Y,Z"—and then proceed to *cultivate* themselves in these directions. Here is the difference between goals-oriented (cultivated) growth and spontaneous (natural) growth of plants. And it is here where the notion of culture—specifically human feature of the organismic wholes—takes over the leadership role in psychological science. Human psychology is cultural psychology of intentional, goals-oriented and innovation creating human beings.

This specificity of the human psychological systems leads to the general epistemological issue—how do new metaphoric extensions feed into the innovation of our

understanding? Mere invention of new metaphors is not enough. In Chapter "Exploring the "Garden Metaphor": An Inter-modal Autoethnography" of this volume, the reader can follow the semiotic analysis of this process—new metaphors re-organize our previous knowledge as new sign systems, which then feed forward to the taking of the researchers' perspectives onto the phenomena. Thus metaphors are tools to overcome previous borders. Metaphors are needed for new kinds of theories which, in their turn, lead to new ways of doing empirical research.

There are many theoretical needs the creation of organic metaphors for psychological science needs to satisfy. Perhaps the most complicated border in our theories in psychology is to conceptualize the domain of *in-between*—a relationship between parts of a whole that has clear material links. In Chapter "Time as an Organic Metaphor", the notion of *aido'* is a good example of the relation that is invisibly realistic and important within the whole. Being set up inter-subjects (you and me), it can be transferred to intra-subject (I and Me) relation. In formal terms, such relationships can be abstractly defined in oppositions to others (a third position—an ephemeral non-specific reference "They"). Concrete demonstrations in the human experience may require in-depth psychological analysis where the ephemeral "They" plays the role of a catalyst in the process of regulating the I <> Me relation both in the intra-psychological and inter-psychological domains. Fluid shifting between these perspectives is needed for negotiating the autonomy of the I from the Me (and vice versa) under the conditions of the "They." In other terms, the flexibility of the intra- and inter-Self dialogue makes it possible for human beings to be autonomous in relation to society.

To summarize, this volume is an experiment in epistemology, following the previous effort (Cabell & Valsiner, 2014) that brought the notion of catalysis from chemistry and biology to psychology. Bringing catalysis to psychology leads to the need to re-construct the domain of theoretical models—in terms of those that include various uses of organic metaphors. Examples of that have been present in the epigenesis of protein synthesis where the ideas of binding and un-binding between elements within a dynamic helical structure explains the different versions of protein synthesis.

The function of the present book is even more innovative. The authors included here sail out onto the stormy ocean of knowledge making, boldly equipped by the manifold of organic metaphors, hoping to discover the New World of theoretical garden of delicious new generalizable images. Maybe we could call it *semiocenosis* (compare with biocenosis in Chapter "Ice Cream: An Exploration of Outsiders by Parasitological Insights") of the human ways of being where human beings create signs that allow them flexibility to go beyond the here-and-now demand settings and create poetry out of the most mundane everyday experiences.

Salerno, Italy Jaan Valsiner
December 2022

## References

Cabell, K. R., and Valsiner, J. (Eds.) (2014). *The catalyzing mind: Beyond models of causality*. Vol, 11 of *Advances of theoretical psychology*. Springer.

Diriwächter, R., & Valsiner, J. (Eds) (2008). *Striving for the whole: Creating theoretical syntheses*. Transaction Publishers.

Valsiner, J., Marsico, G., Chaudhary, N., Sato, T., & Dazzani, V. (Eds.). (2016). *Psychology as the science of human being*. Springer.

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# Prelude: Psychology in Metamorphosis


**Marc Antoine Campill**

The human being can always be observed in a domain of infinite axes of time and space. In contrast, the scientific fields, initialized by the human ability of perception, tend to be lost in the *Gegenwarts* ability; thus, they generate meaning in a restricted fragmental form. It is therefore essential to emphasize that the dense dialogue between the physical experienced realm we call "reality" and the meaning-generating process based on *imagination* is not restricted to the current time frame (now). Rather, we experience our world within the time frame of the present – a comforting construct promising stability, but our interpretations are identical to echoes, being noises from the past, underlining the crucial awareness that phenomenological knowledge is bonded to the active approaching of theoretical generalization and actual observable phenomena.

The decision to put together this volume comes from an epistemological need. The psychological field needs to construct new ways of generalizing how complex systems function, allowing a broader audience to cultivate their own personal meaning with information that has been hidden in overwhelming complexity in the field. The need to make knowledge sharable is not solved by making publications freely accessible, it is also of tremendous value to make the processes and phenomena understandable in themselves. This is an extension of individual maturity in psychological-phenomenological understanding. In concrete words, it amounts to connecting the need for comprehensibility and for a holistic phenomenological shape. As a leading tool to such an essential richness of metaphorical goods and new positionings the organic world needs to be explored, a field that provides new metaphors that go far beyond the notions of the field generated through the

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traditions coming from physics. Human *psyche* is based on the biological, not physical, reality.

In general, the use of such organic models have to become an essential tool in the future, allowing research to capture the phenomenological change over time, extending the psychological ability to frame phenomena, while allowing a broader audience to dive into multidimensional complex systems.

## From Allegories to Metaphors

In the name of theoretical clarity, there is therefore an essential need to dive into the fragmental elaboration of the core meanings behind the concrete designation of "organic metaphors," while elaborating its historical initialization as a potential and innovative extension of the known tools: *metaphors and models*. As an iconic example we can highlight Vogel's model (Vogel, 1979) of elaborating a sunflower, underlining the essential connection between theoretical mathematics and our natural habitat. It is crucial that this form, called the golden angle, is in its existence of a certain omnipresence, taking into consideration that it can also be found in other natural forms such as the nautilus, in artistic and religious manifestation of the observed aesthetic, as in Picasso's version of the Mona Lisa, or in religious literary works defined as a *divine order* (Dunlap, 1997; Campill & Valsiner, 2021). Such an order needs to be received through scientific understanding, rather than excluded from the domain of scientifically approachable phenomena.

It has to be taken in consideration that the very essence of models and metaphors are rooted from allegories. The term *allegory* comes from the ancient Greek inhabiting the central meaning of 'different' or 'veiled language'. It describes the phenomenon of the individual forming indirect statements in which one object, also including the constructs person or process, can be used as a sign for another particular, for example, an abstract concept. This ability can be used by a human being based on its individual collection of experiences, in irreversible time, and can be described as an act of associating a certain framed situation X with a similar experienced or remembered moment Y (Guenther, 2021) – *based on the relation between imagination and reality, during the meaning generation* – (Zittoun, 2016). In other words, the perception of the human being is the key process allowing the human being to interact in his surroundings. At the same time this perception is linked to certain restrictions and extensions in what can be perceived, remembering that one current moment is similar to another, which is in itself an interpretation connecting the past and current moment with each other. To understand such processes the metaphor used is needed to be able to move in a similar context, meanwhile giving us access to elaborated knowledge, extending our own framed perspective.

Based on the cultural psychological view of the individual creating the meaning of its environment while standing in direct dialogue with it during the shift through the flow of irreversible time, the concept of allegories can be understood as the initialization point for the collective manifestation of symbols, followed by its

multidimensional junction: metaphors and models. A role that can be underlined by the mathematical use of the term, according to *Freyd*[1], described as the concept defining two-digit relations between different sets in its category. The retractability of human beings using allegories, and with it the essential role of the adoption of allegories, can be shown by the analysis and interpretation of mythological or sacred texts (for example by the following artistic interpretation, from the baroque, in Fig. 1).

In this context, the linguistic or artistic expression of an allegory is extended into the multi-complexity of a *Naturwissenschaftliches* and general meaning-generative form, where an allegory is constructed from the outset with its particular

**Fig. 1** *Allegory of Victory*, by Le Nain brothers in Paris, France (c. 1635)

[1] American mathematician, born 5 February 1936 in Illinois. The central focus in his field of interest was the category theory.

interpretation in mind. Therefore, the concept of allegories requires a certain context, where the listener needs to make a mental leap/association from what is said to its intended meaning. Nevertheless, this also means that if a viewer is not familiar with a required context, out of which the allegory was constructed, its meaning stagnates in the hidden or alternatively describable as in the unshared.

The interpretation of a historical text shifted over time into the fragmental unbelievable or incomprehensibility, based on its stagnation in the past, whereby at the same time the human society was continuing "moving" through time. The literal statement of a potential hidden wisdom or truth becomes a clearly iconic example showing the thinking and beliefs of certain individuals from another time period as having been anticipated and authenticated in the past, a particular fragments of one's own culture and a view of the social *Gestalt*, simply underlining the ability of allegories to shift into a metaphorical *Gestalt*.

Leading to the conclusion that the individual construction of allegories can be seen as the starting point of the *Wissenschaftliche* tool scientific-model, where the construction of a multitude of signs are integrated into a holistic image based on the injected information and sign, an overview embedded in an accumulation of signs – into an *overall-sign* (Fig. 2).

The *metaphor*: linguistic expression in which a word (a group of words) is transferred from its context of meaning to another, used as an image; and the *scientific model*: simplifying the representation of a section (framed part) of reality, depending on how its inner boundaries are defined, can be seen as two tools resulting from

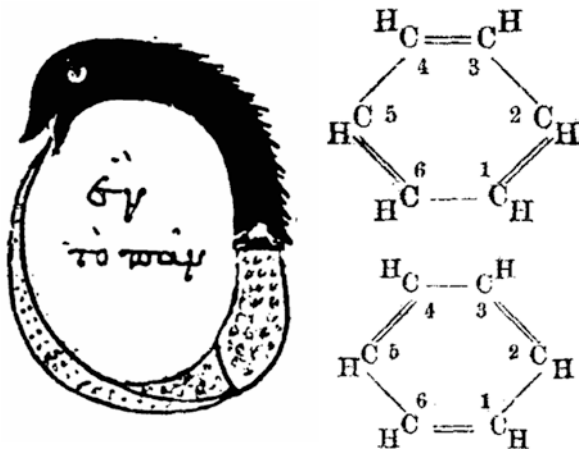

**Fig. 2** Ouroboros in "This is all one" (left), from Cleopatra the alchemist in the Codex Marcianus graecus 299 fol. 188v (approximately tenth century), followed by Kekulés suggestions of the Benzene-model (right). (In the figures for the elaboration of matching examples of individual allegories that interact as a starting point of *Wissenschaft*. August Kekulé (1829–1896) dreamed of the alchemy image ouroboros, a form that inspired him in his construction of the chemical Benzene Model, a model that later become known as fundamental knowledge in organic chemistry.)

allegories intensively interacting with each other during the generation of scientific knowledge.

## Organic Metaphors: Emergence and Disappearance

The predecessor to our quite young understanding of organic metaphors and models is the tradition of "N*aturphilosopie*," which emerged in the first half of the nineteenth century in Germany. A stream that found a strong connection to romanticism and has been an inspiration for the understanding of sciences, in Germany. From Humboldt (1769–1859) and Kant (1724–1804) to Schelling (1775–1854), the approaching of natural phenomena in metaphors has been seen as a strong tool for the exploration of theoretical understanding by an understanding of unity in nature. Dynamical ideas such as the "*Metaphysische Anfanggsgründe der Naturwissenschaft*" (1786 by Kant) has been, for example, a strong impact in research that opposed the notion of "*Aufklärung*," the metaphysical space taking more accreditation than the physical, for the generation of meaning in the human being.

Unfortunately, the science with the understanding of a deep interaction between mind and matter has only a short time in the stream of sciences, whereby the potential behind the "N*aturphilosopie*" is still untapped. In the metaphorical phenomenology explored by the interrelation between alternative organic processes and observed phenomena, the strongest potential has been especially the potential of connected growth. In other words, new understandings in sciences can become the inspiration for the extension of one's own theoretical phenomenon of interest. A process that has been taken away by a strong school of thinking that split the scientific fields from each other, even though "reality as a whole" cannot be split into such isolative field thinking. With the disappearance, also the understanding of nature as one great organism, where single units are only fragments of the whole, disappeared from the scientific plate. It was in 1828 when Paul Usteri (1768–1831) proclaimed the end of "*Naturphilosophie*" as a stream in the social sciences, whereby single voices such as Heinrich Wilhelm Dolve (1803–1879) still allowed organic metaphorical thinking to persist in the unconsciousness of social scientific research (Snelders, 1970).

## Organic Metaphors: Extending into an Irreversible Time-Including Field

After the decomposition of the overall philosophical field of knowledge generation into a multitude of individual scientific fields and schools, especially the scientific psychological elaboration and analysis of phenomena changed based on the dominant manifestation of behavioral empirical thinking patterns. In the psychological

field the changed mindset resulted in a more technical understanding of the world (identical to physics, chemistry, and mathematics). In general, the generation of holistic models became less, and the few attempts at such showed a tendency of a more or less mechanical nature. A central example of such a reduction of holistic knowledge generation can be found in the generation by the core behavioral field of the black box[2], where the non-observable/relatable *input* and *output* of a defined system are ignored, hidden in an unopenable box, and divided from relatable stimuli and reactions (Wiener, 1961; Pauli, 2002; Geitz et al., 2020). In contrast, the view that holistic models found their way into the scientific psychological field impacted the field strongly; an essential example of such a model would be Kurt Lewins' (1936, 1938) *field theory.*

## Kurt Lewin's Attempt at Creating a Psychological Field Theory

In general, Lewin's field theory (Lewin, 1936, 1938; Deutsch, 1954) can be understood as an elaboration of the cruciality of interpreting every single moment of impact by a physical-like multidimensional field of vectors. The field theory is in general closer to a methodological approach than to a theory. An approach able to allow researchers to reconstruct scientific complex phenomena in generalized concepts matching the multidimensional character of the observed environment – field – leading to the ability to analyze essential relations in their complex context of topological networking in the field. This attempt to generate a process that is able to approach the whole complexity of the holistic 'nature' of phenomenological interaction and relation shift/change can be described as essential, nevertheless incomplete, step into a new domain of psychological thinking.

Unfortunately, Lewin's more mechanical directed approaches remain unable to include dynamic and fluid *Gestalt* of the multidimensional network that we can observe in the everyday life. Lewin's interpretation of the field was of an analytic nature that was bonded to the linearity of his depictions and vectors. In the theoretical context Lewin allowed the vectors in the field to change their directions, whereby the fluidity of their proper shifting in shape and growth was blocked (Campill, 2021; Campill & Valsiner, 2021).

In conclusion, Lewin's theoretical attempts in holistic theories can be seen as temporarily failed, whereby his work is a central tool for deeper explorations in the generation of human meaning and by challenging his central thoughts there can be essential new understanding and positioning in behavioral and social sciences.

[2] Similar to the blackbox of an airplane, which was invented in 1954, whereas the Blackbox from Dr David Warren stores the information in case of a needed opening/information evaluation and the behavioral psychological procedure simply excludes that information from the evaluation.

## *Engström: The Pioneer of Organic Metaphors*

In contrast to those previously introduced theories the organic metaphors can be seen as extremely young phenomena, re-initialized at the beginning of the twenty-first century. It should be underlined here that very few previous efforts have been made in this direction. The undisputable pioneer is Yrjö Engeström, whose work in the last two decades has set the foundation for this new perspective (Engeström, 2000, 2006a, b). Other researchers have followed his lead, taking the first step in using, for example, the image of catalysators or meadows, which introduced new cultural psychologically influenced meaning by making sense of meta-physical constructions of culture. The shifting of the Gestalt in the field that Lewin was unable to realize with his vectors became achievable by the metaphorical use of organic structures while remaining functionally within its concrete representation of a phenomenon (Campill & Valsiner, 2021).

In addition, let us shortly introduce Yrjö Engeström's realization of an organic metaphor, the mycorrhizae (Engeström, 2006a, b). The actual biological construct of the fungus can be defined as a network of so-called fungal threads in the soil. Those threads in the soil often form a symbiosis with the nearest forest, in particular the trees, a process that is known as mycorrhiza (derived from the Greek, inhabiting the meaning of "mushroom root". Unique for this organic metaphor is the ability to define the co-existence of two, or multiple, organic systems and its potential development in a certain environment over time. A metaphor usable for the relationship between an individual in his/her environment/domain, individuals with each other, or, for example, from one meta-physical concept to another –for example between social constructs from cultures. Let us take the concept of so-called pop-up culture networking in the new digital arena. The participation of pop-up culture such as manga in the digital field generated a certain dialogue between the two concepts, resulting in a network system that can be described in this case as anime. Both tree and fungus are profiting from the nutrition exchange, in this case accessibility and fan-base, resulting in a mycorrhizae interaction, that is quite stable in its direct connection, but is constantly shifting in its concrete form as a network, for example, the current specific needs or the potential endangerment by conserving the current co-existence.

The use of such metaphors has a simple but crucial impact in the generation of scientific understanding, by overcoming the human restricted ability of mentally restoring complex information in a compact form, without shortening essential context information of a selected and observed phenomenon. In particular, the phenomenological shifting through the dimension of time can be integrated into the theoretical layers, without disfiguring its fluid and complex *Gestalt*. Theoretically, psychology needs a way to understand metaphysical processes in their full communicative context, underlining the dense interaction between the individual with its environment by using an adaptable and organic field. A field can follow the multidimensional meta-constructs into its shift in time and space whereas the metaphor shape remains in its simplified form. The human ability of *Einfühlung* in relating to

the field needs to be triggered, helping the audience to dive with the author into the field of interest, preventing or at least minimizing the risk of detaching knowledge from the whole (Campill, 2021).

## Organic Metaphors: Being More Than "Green"

Nevertheless, the construction of organic metaphor does not simply mean to stagnate in forest-like schemes, it needs to go further into the complex and omnipresent existence of organic existence, including the *Naturwissenschaftliche* notions into the generation of psychological meaning. The dialogical nature of the human being, already rooting from an organic baseline, needs to be manifested in matching alternative scenarios, whereby such a meaning bond has to be realized thoughtfully, taking its complex and interactive nature into consideration.

It is therefore essential not to stagnate in the first association of what organic would trigger in the common mind – organic does not stagnate in the forest. When we dive into the field of potential organic metaphors we are confronted with a phenomenon equivalent to the non-Euclidian forms in the mathematical field, in its range that is potentially endless. Examples of such fields of interest are organic chemistry, microbiology, meteorology, and parasitology (Fig. 3[3]).

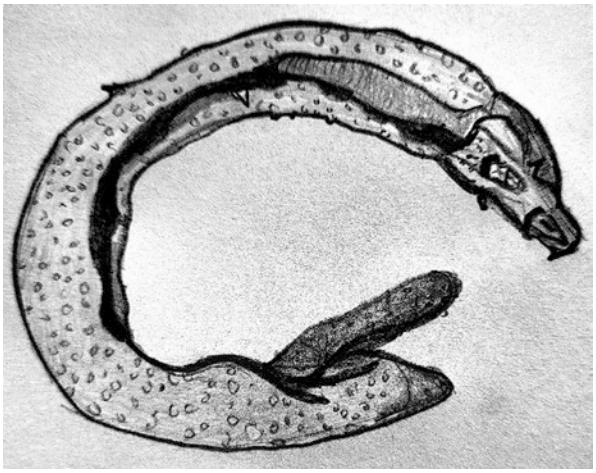

**Fig. 3** Illustration of a parasite worm couple "*Schistosoma.*" (Created by the author)

[3] Schistosoma worms, alternatively known as "blood flukes," are famous for their unique act of bonding. From the moment when a male worm connects with a female, they initialize a lifelong act of mating that cannot be interrupted, creating a co-existence that could be seen as fusion into a single "individual."

On the one hand, we are confronted with an act describable as a return to the very beginning of scientific roots – philosophy – on the other hand, it cannot be reduced to a simple return into the past taking into consideration that the current scientific innovation and knowledge may lead our understanding of *Naturwissenschaften* into new, more unified spheres – equivalent to a human shaping the field by moving further, experiencing/connecting with new *Gegenstände*, in the space of irreversible time.

In its pure simplicity:

> Researchers in the field sometimes need to be reminded of simple everyday phenomena, based on the natural challenge to be lost in the complexity of certain terminologies based on their intense dives into the field. The dialogue of voices, as Hermans described them in the Self (2001), are in themselves the answer to what is needed most in the psychological field, and in scientific fields in general, emphasizing that although we generate "isolated" field-specific knowledge, we are in constant interaction in our – *for us* – holistic environmental *Lebenswelt* (Campill, 2021, 2022a, b).

## *Organic Metaphors as Mediators Between Scientific Fields*

Returning to another example of such organic metaphors, the self-identification meadow. The meadow as a field, separated into a diversity of living elements while interbonding in a single co-existence, can be understood as one of the most promising fields for the exploration of information distribution and generation. Similar to the human brain, plants and animals co-exist in a fragile homeostasis maintained by the constant cultivation of their compilation – conserving, improving, replacing (Campill, in press).

A process realized by hormones, and other stimuli shared through smaller subcultures as parasites, resulting in a sharing of – from the forest of perceived information – and into the generation of countermeasures. In other words, the meadow interacts in an identical manner to the human being when it comes to the process of generating meaning – for its own life quality and survival. This resemblance makes the meadow a perfect tool for the metaphorical use of knowledge generation in the difficult-to-observe metaphysical meaning generation and reconnects the phenomenological essence of meaning making (Campill, 2021). As a simple example, the meaning to survive and meaning of one's own wellbeing can be reconnected in their elementary *Gestalt*, resulting in the cultivation of one's own individual culture.

## Relation Between Art and Science

It is not only the scientific extension by infinite possibilities of combinations in between the *Naturwissenschaftliche* fields but also the possibility of extending the procedure of generating a psychological model, also expanding into other forms of

human-invented meaning generation, for example, the domain of the arts. It is the composition of colors, the preposition, dimensional placement/shift, and constellation that we need to play with to generate a model that is able in its stagnated essence to extend into the dialogical reality of observed "reality" and "imaginative" conducted interrelation.

An example of such connective interrelation in the fields of science and arts are retractable, especially in the context of the meadow. At a similar time two works, in a nondirect relation, have been produced. One is the theoretical suggestion of using the meadow as a metaphorical tool to manifest the psychological understanding of the human process of generating an individual culture and the second one is the poetic contribution of the book "Meadowlands," from Louis Glück. In particular, the poem entitled "Nostos," emphasizing that in a certain manner what we see in our everyday life is simply the said memory, made out of the experiences of our past (Glück, 2020, p. 43).

Nevertheless, as previously already elaborated, organic metaphors do not have to stagnate in green fields. This particular mention is essential, taking into consideration that currently a particular boom is triggered, bonded to green field metaphors, for example, forest, meadows, and gardens. Of course, it is of great fortune that we can observe a rethinking of the psychological accessibility toward the field of potential sources that has already started, expanded by the border overcoming repositioning, but at the same time it is important to challenge the new mindset early, preventing a stagnated tendency of resting in the metaphorical green, remaining aware that metaphors can go into further alternative positions, going beyond current common expectations into the uncharted wasteland, overfilled with potential innovation.

## *Extensions in Psychology*

In the following chapters organic-based metaphors used to generate innovative extensions in psychology will be introduced as new potential inspirations for the theoretical and practical fields of psychology. Organic metaphors are multidimensional designations of phenomena, emphasizing the dense dialogue between the physical experienced "reality" and the meaning-generating "imagination," embedded in the phenomenological fluidity during irreversible time, resulting in the question, what does this musubi-like fusion of meta-fields mean for our future procedure and knowledge generation in the scientific domain?

Based on the focus on multidimensional relations in observed phenomena and to praise the organic foundation of the new insights reconnecting psychology with the basic *Naturwissenschaftliche* perspectives, the volume is ordered based on the most central generalized condition of organic material, linked to *Leben* (life) itself. Therefore, the central focuses of the contributing researcher will be arranged into *Lebewesen, Lebensraum, Leben,* and *Lebensbaum.* Categories that interact as a tribute toward the holistic thoughts of the nineteenth century stream N*aturphilosophie*. The view is focused in other words on the single units in the context of the whole

individual in the environment (*Lebewesen*), on the whole in correlation with its single units (*Lebensraum*), and on the unification/catalysis points in its role of connecting parts and whole (*Lebensbaum*[4]).

## *In Dialogue: Introducing a Chapter Extension*

Besides this general structuring of the volume, an inner extension to the chapter's construction has been made which I would like to introduce as: the *Dialogue sequence*. In contrast to most volumes, the following work will be one with a very unique character that matches in my opinion perfectly the essence of the researcher's ability. In other words, the single contributions are extended by a second *Discussion sequence* that is probably a*typical* in its appearance in contrast to the usual. In short, it will be a paper where the contributing authors can ask questions that allow the emerging extending materials that can be of interest for a deeper understanding of the shared research material or can be used to connect the single contributions using a stronger bond. It can be seen as a more holistic approach in which you as readers will not simply experience new insights and gain deep phenomenological knowledge but it will also allow you to gain insights into how they can co-exist or even improve in their *Gestalt* based on dialogue.

As an allegory we may be able to return to Hubert Hermans' theory of the dialogical-self (Hermans, 2001), a field where an endless amount of information streams are colliding and where every position is able to impact the meaning making and behavior of the current moment. The psychological field – like every research field – is a construct that shifts in its nature based on the social, individual expectations and needs, which in its essence is identical to our personal identification as individuals. *So why not profit already in contributions themselves from the phenomenon of dialoguing?*

In conclusion, it is my particular goal in this prelude to once more underline the need for and to offer clear examples of generating organic metaphors; meanwhile, there is a subliminal goal in the purpose of this volume. As we are all aware, the human is determined to interact and bond within its environment. A condition that is set from the beginning of our existence and interferes with every decision we take. Based on this awareness, it is the goal of the sub-parts included to re-introduce the character of *dialogue* in the early phases of scientific exploration and to allow field growth in such way that cross-movements between different interest fields are facilitated and new meaning – as deeper understanding – can be generated out of it. The results of this alternative extension of papers can be admired and explored in the following works.

[4] *Lebensbaum* a religious construct (from Western cultures, for example, Yggdrasil) that has been used to connect the metaphorical (God and angels) with the physical (human and environment), connecting everything in its single nature – in its context as part of the whole.

## References


Campill, M. A. (2021). Towards a wholistic model of identity: Why not a meadow? *Integrative Psychological and Behavioral Science., **55***(1), 112–127.

Campill, M. A. (2022a). Cultivation of humanity: How we can stagnate within the eternal flow. *Culture & Psychology.*

Campill, M.A. (2022b). How outsiders make the difference: Process of inner meaning-generation in borders? (*unpublished Master Thesis, Psychology*). Austria. Sigmund Freud Privatuniversity Vienna

Campill, M. (In press). A Cultivation in self and environment: When a voice echoes from one garden to another. The semiotic field of the garden. Advances in Cultural Psychology.

Campill, M. A., & Valsiner, J. (2021). Spiral and helical models for psychology: Leaving linearity behind. *Human Arenas*, 1–21.

Deutsch, M. (1954). Field theory in social psychology. *Handbook of social psychology, 1*, 181–222.

Dunlap, R. A. (1997). *The golden ratio and Fibonacci numbers*. World Scientific.

Engeström, Y. (2000). Activity theory and the social construction of knowledge: A story of four umpires. *Organization, 7*(2), 301–310.

Engeström, Y. (2006a). From well-bounded ethnographies to intervening in mycorrhizae activities. *Organization Studies, 27*(12), 1783–1793.

Engeström, Y. (2006b). Development, movement and agency: Breaking away into mycorrhizae activities. *Building activity theory in practice: Toward the next generation, 1*, 1–43.

Geitz, E., Vater, C., & Zimmer-Merkle, S. (2020). Einleitung: Black boxes. In *Black Boxes–Versiegelungskontexte und Öffnungsversuche* (pp. 3–18). De Gruyter.

Glück, L. (2020). *Meadowlands* (English Edition). Ecco.

Guenther, L. P. (2021). Homo allegoris: How art perception and allegory analysis reveal the life script ideology. *Human arenas, 4*(3), 471–486.

Hermans, H. J. M. (2001). The dialogical self: toward a theory of personal and cultural positioning. *Culture & Psychology, 7*(3), 243–281. https://doi.org/10.1177/1354067X0173001

Lewin, K. (1936). *Principles of topological*. Kurt Levin.

Lewin, K. (1938). The conceptual representation and the measurement of psychological forces.

Pauli, R. (2002). The scientific work of Wilhelm Cauer and its key position at the transition from electrical telegraph techniques to linear systems theory. *Meeting on Cybernetics and Systems Research EMCSR Cybernetics and Systems, R. Trappl. 2*. 934–939.

Snelders, H. A. (1970). Romanticism and Naturphilosophie and the inorganic natural sciences 1797–1840: An introductory survey. *Studies in Romanticism*, 193–215.

Vogel, H. (1979). A better way to construct the sunflower head. *Mathematical Biosciences, 44*(3–4), 179–189.

Wiener, N. (1961). *Cybernetics: Or the control and communication in the animal and the Machine*. MIT Press.

Zittoun, T. (2016). Studying higher mental functions: The example of imagination. In *Psychology as the science of human being* (pp. 129–147). Springer, Cham.

# Part I
# Lebensbaum

*Space of life*

*Space we live in*
*Where organic life meets,*
*Results in the unity we,*
*While staying oneself?*

# Time as an Organic Metaphor


**Natalie Jancosek**

## Introduction

The notion of time, with all its attributes and possibilities, as well as borders and mysteries, has been an important part of psychological literature as long as we speak of psychology as an own scientific discipline. Before even starting to discuss its importance within theoretical and empirical models of human thinking and acting, discussions about the idea of time have already managed to cross borders of all scientific disciplines unifying them, or being the reason for splits in opinions and interests.

The idea of human perception and understanding of time combines two large scientific disciplines – physics and psychology. Those might seem like complete opposites at first, but their acquaintance goes far back in history.

Psychology had to justify itself as a separate scientific discipline throughout its entire existence and even now psychology is searching for its unambiguous position within the sea of sciences and opinions. The lack of clear borders of relevance for psychology that shall not be crossed and act as absolute separators, comes with one crucial advantage (amongst all the disadvantages), which are its limitless presence and possibilities to join any discussions regarding any topic possible – no matter if these are trivial everyday moments of experience or complicates matters of existence. Moreover, there is no such thing as the one and only psychological perspective, as this scientific discipline very much depends on the individual scientist, their knowledge, interpretation and beliefs regarding the studied topic (Swidler, 1994).

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Human beings, especially their mind and knowledge, are composed of a large variety of items that connect, intersect and communicate (Hermans, 2001; James, 1890). Thus, we can state that our knowledge is cultural and all knowledge is semiotically mediated (Valsiner, 2017), and thereby it is possible for psychology to widen its horizons and include aspects of other sciences, even though they might seem rather distant and converse.

This particular volume is focused on the matters of organic metaphors (Campill, 2020) – which are moments that might be applied to an object or action to which they are not literally applicable. To my opinion, there is no better metaphor than the notion of time. This very unique panjandrum that is objectively measured and subjectively perceived at the same time. To note some famous metaphors, according to proverbs, time heals, steals and flies, but actually it does none of those activities; it is humans who are able to do them because of time – which certainly makes it one of the most intriguing organic metaphors within human psychology.

## Merging Borders of Two Seemingly Distant Sciences

Physics and Psychology share a history in psychophysics, made famous by G.T. Fechner (1860). Fechner (1860) understood psychophysics as the study of the relationships between mental (subjective or phenomenal) and physical (objective or physical) conditions, whereas external and internal psychophysics was distinguished. While external psychophysics examined the relationship between physically measurable stimuli and the experiences they trigger, internal psychophysics dealt with the sensory and neuronal excitation processes, which can in principle also be measured using physical methods. Simplified, the idea of psychophysics was to quantify subjective experiences. This idea has stayed present over time in psychology and developed into an in-depth study of the psyche through a variety of tests, some of which are still of use in modern clinical and social psychology (personality tests, Big Five, etc.) and structural ideas of cognitive neuroscience, which has over time advanced away from physical principles and focused rather on biological properties and chemical reactions (Ehrenstein & Ehrenstein, 1999). Leaving behind most ideas of external influencing factors on certain physiological moments, e.g. the eyesight, that could be influenced by properties like darkness or a manual adjustment to the eye, the key topic to modern neuroscience are the chemical reactions happening in the brain in given circumstances that help understand the connections within the brain and the central neural system and its extension towards the whole body. The re-interpretation of these ideas becomes very relevant for the current topic – psychological perception of time and space (Campill & Valsiner, 2021). This idea becomes rather tricky, as time is an independent continuum making everything we know and have dependent of it. It is a very mysterious part of our lives and everyday, that we must perceive and deal with constantly (Eriksen &Vøyenli, 1976).

## The Perception of Time Over Time

Many individuals have studied time, most relevantly Hawking (1988) and Feynman (1948) and most recently Abdalla et al. (2021) yet humans have been preoccupied with thoughts about this dimension for a much longer time. Already ancient Egypt, an epoch famous for the invention of the sundial, was determining individuals' age, based on a generalised measurement and predicting durations and events coming from just the same scale. What this civilisation had has become slightly degraded only to be re-discovered in France in 1891. This year marks the unification of time for the use of understanding train arrivals and departures across the country. As funny as it seems, there would be no necessity to establish a unified clock unless people would not be late all the time. This idea was then further elaborated into time zones and daylight savings time by the entomologist and astronomer G.V. Hudson (1895, 1898). The modern interpretation of the impeccable astronomic and physical discoveries was perhaps taken a step too far, as global time zones and daylight savings time causes confusion on social micro and macro levels and has become a never-ending topic to the equally never-ending discussions in the European Parliament.

Yet the notion of time became relevant for psychology in different ways; mostly by the understanding that there is constant movement happening in society and individuals, that is directed towards a future only – meaning that it cannot be reversed (Valsiner, 2014). Thus, the idea of stability cannot become justified, as it would mean that the person would need to be found in a certain "synthetic thoughtless vacuum" and even then the surrounding would still become a victim to the never stopping motion of time. Yet through a constant we have established an illusion of a lasting present moment. The present can be only found in a very small fracture of time, as its vectors are always facing towards the future. This illusion of presence has been kept by long lasting feelings, just as the mothers love for their own child. A mother will always love her child, yet the feeling will still change and become stupefied or amplified by diverse adjectives that are context bound:

I passionately love my child when it does something to make me proud.
I love my child, but become anxious, when I watch it try new things.
I love my child the most when it is asleep and does nothing.

All examples of the expression of the mother's love are conditioned by a context and past experience. The conditioned feeling of love changes even though we are still speaking of love and each mother would claim that it is unconditional.[1] The general feeling, in this instance "love" is the constant of this equation. The adjective becomes a variable, that is dependable on the constant and directs its path into the future.

[1] Mothers and children go their ways believing that they will always love each other unconditionally. They share an unbreakable bond, yet at some stages of their lives, this bond may become conditioned - the child's puberty or the mothers menopause.

The feeling of just loving the child[2] is always present and by its significance, it reaches a point in which the mother cannot express it:

> I love my child so much, that I cannot describe it.

And thus this feeling is a hyper-generalised, semiotically mediated one (Valsiner, 2012b).

Such moments are an important part of our thinking and being, and a way for our mind to function and operate productively over the course of a general irreversibility (Valsiner, 2014b). Here it is important to note, that psychological time is different to the physical definition of time. Both meanings act along each other – time flies, no matter how we perceive it, but we experience it in different ways based on our knowledge about the physique of time.

As it is, feelings do not have to be understood; neither do they need to be expressed, in order to be present. In the non-verbalisable state, those feelings cannot be communicated and attempts of their interpretation result either in failure or another feeling.

Once the future, to which the feeling was oriented, becomes the past, we speak of experience but also of an important process that our mind does constantly. If we think of someone who died, they do not get older in our memories. We capture them just the way they were in our latest memory and do not change it in ways proportional to our ageing. Our mind has been able to defeat a force, greater than human kind – we have been able to create the illusion for ourselves of making time stop at a moment that shall forever remain present even though we are still moving in time towards the future. This most radical example is just a metaphor for such processes our mind does in order to act against the absolute influence of irreversible time. The human mind, a unity that functions in the physical notion of time and is absolutely dependent of it, tries resetting it by capsuling processes that shall preserve a present moment and make it last forever in our memories. In this instance it is just as interesting to see, that all memories become modified over time. Here too, the general content stays, but anytime it becomes retrieved, some aspects of it become modified only to be saved again in the processed state. This idea was elaborated by Paul (2022) who compared the process of re-calling memories to a childhood game, in which a group of kids would whisper a message into each other's ears and once it reaches the last recipient, the final outcome will differ from the original. This is how, for example, the sentence "You've got mail!" Develops into "June will fail", as the words may sound similar but are completely different in their meaning.

Another idea could be of memories of specific places, returning to which people always get surprised about the changes happening. The first time I collided with this phenomenon was when my parents had taken me to see the Death Sea from Israel's shore and my mother became speechless over how much the sea level has shifted away and reduced its size. As a child, I did not pay much attention to it, yet returning to the Death Sea as an adult, I experienced the same moment my mother did 17 years

[2] Besides loving their children, mothers, as they are human, are capable of other loving bonds - animals, nature, partner, etc.

ago. By the return to the place, this memory has been brought to a higher psychological state, through the process of glorification. An emotion of the previous visit was attached to the memory and not only the water-level shrinkage has caused another emotion, but the memory in comparison with other events has been glorified. Most memories captured by our mind act like photographs, creating a capsule that shall remain in this conserved state, until it may be open again and modified by the currently latest experience.

This metaphor has been present in psychological literature for quite some time, yet the specific notion of how the mind chooses to act against time has been overlooked.

## Time as a Liminal Structure Within the Human Mind

Time and the human mind share interesting commonalities, that both, contribute to their uniqueness and mystery, but at the same time those connections act as invitations for the intrigued researcher to become mesmerised and eager to unravel those secrets. The human mind is not structured in units and built in Lego blocks; its structure is rather complex and undergoes constant movement. Each human being has a mind; a mind composed of feelings, thoughts, experiences, knowledge, identities and many other dynamic processes that are inconstant movement and development. The paradox here is that the non-stop movement allows for consistency in our development and social characteristics that are perceived by the ones that surround us. Those paradoxes regarding the human mind can be subsumed as Liminal moments (Stenner, 2018), as we speak neither of chaos nor of structure, but at the same time we include both and their continuing dynamics.

Liminal moments and structures (Stenner, 2018) are ones in which no absolute can be applied, but neither the relative. Liminal moments happen when we experience something, that is neither this, nor that, but it is kind of both, yet something else. Those experiences happen on the non-verbalisable layer in the semiotic mediation model (Picione & Valsiner, 2018; Valsiner, 2017) and are structured somewhere between the known and the unknown.

Seemingly, our mind should be just permanent chaos, yet it somehow happens to manage its integrity and create a logical structure, that keeps our thoughts, experiences and feelings organised and makes it possible for constant development processes to happen. This organisation of our experiences and knowledge happens though a narrative process during which the individual is able to "structure" their mind, their memories and also positions within it (De Luca Picione & Valsiner, 2017). Narrative-structural processes in our mind are very complex phenomena that bring our mind and multiple dimensions of time into an exciting exchange. If we expand on the experience mentioned previously – visiting the Dead Sea in Israel and seeing the changes that happened to its size, we can now imagine the following:

As we are remembering the latest visit to the Dead Sea now, the positions in the mind of the visitor are different, as liminal processes are indeed working and they

are naturally trying to organise the experience within a narrative process. Time becomes multi-layered and multi-dimensional in this process, as we are currently thinking of a past moment, but re-experiencing it in the present, but in a different place (as I am not in Israel). We also expand our role from just the experiencer to the narrator and observer. This narration, observation and experience are also happening in a different place, in a different time – but actually, it is happening just right now in our mind. The outcome is a complex memory, that has now been retrieved, re-organised and saved for further use and modification that shall happen in the future. In this narrative-organisational process, an extraordinary physical phenomenon happens; past, present and future moments are happening at the same time.

Oftentimes our mind likes to play a little trick on us. One of those might be the seeming act against natural sciences, in this case, against the physical definitions of time. It oftentimes manages to create sudden bridges between a past and future in which one chooses to distance from the past through a present moment. No moments of simple time-travel are happening in our mind; it is not possible to re-visit an event without not influencing it, as we have moved towards the future already and the way we re-live the event now is different than when we experienced it live for the first time.

Based on such experiences we create a certain capacity of knowledge in our mind, which helps us in the approach of the yet unknown. If we see something or think of something that we don't know, but we identify it based on what we know – and the rest is a guess and desire to know more, which is when science enters the scene.

## Beal's Conjecture as a Theoretical Model for Cultural Psychology

Beal's conjecture is a mathematical construct; an equation that has evoked the interests of many scientist and lays, because unlike most mathematics, this very specific set of secrets has received an interesting numeric value. This value was given by the American Mathematical Society once they promised to pay one million USD to anyone who will manage to come up with a solution to this equation that will not be negated or disputed over the course of two years. It is no wonder that Mr. Beal has decided to play with values and numbers, as his occupation was an investment banker during the time of the creation of the conjecture (1993). Until now, many enthusiasts have tried to come up with a plausible solution. But as it is in human nature, instead of actually solving problems, people like to create new ones. The Beal's Conjecture has become the source of many new mathematical theories and mysteries. Its basic ideas state that Beal's Conjecture is a generalisation of Fermat's Last Theorem. It states: If $a^x + b^y = c^z$, where all components, A, B, C, x, y and z are positive integers and x, y and z are all greater than 2, then A, B and C must have a common prime factor.

$$a^x + b^y = c^z$$

This kind of mathematics (just like most of this science) does not deal with numbers, although the findings can be represented just as easily, in a numeric way. Here the presentation that I came up with:

$$2^9 + 8^3 = 32^2$$

This solution to the Beal Conjecture acts against all the mysteries, delivering a clear answer to one, or more open questions. The numbers placed in the equation show certain relations, that correspond with the general definitions and requirements of Andrew Beal, yet I have chosen to make z equal exactly 2. This little edition makes it all fit for further processing and allows for creating models that explain just what this chapter aims to do – the important correspondence of time and the human mind.

Knowing the answers now, we can stop worrying about mathematics and cross its borders by starting to ask some rather psychological questions;

The first one would be quite pragmatic, and could sound something like "*What to do with this information?*" This is a rather comical moment, as it was the ultimate goal for many people to tackle the Beal's Conjecture and find solutions. Yet once solutions are found, what is now the next step to go? This situation finds many parallels in everyday life of each and every one of us; one opportunity where this phenomenon could be observed was at the recent Winter Olympic Games in Beijing. Athletes, desperately wanting to become Olympic medalists, invest a fair amount of their lives and devote themselves to the sport and once they become Olympic winners, their biggest goal is completed. Journalists in press conferences almost always address the question, what the athlete would like to do next after achieving this huge success? The answers are usually short term directed, like celebrating the win, or very general, e.g. continuing to work on my skills. In both cases, the answers are distractors from the very intense psychological process happening in the athletes mind, in which they are seeking a plausible response to the question "What to do now?". Athletes devote themselves to their sports and integrate it as a meaningful part of their life and identity (Jancosek, in preparation). Within the sports, they set goals they want to achieve. Those goals serve as motivations to continuing building their devotion and also to continue their engagement in order to master whatever they have decided to do. Becoming an Olympic champion means that the athlete has mastered the skill currently on the highest level on the planet. It also means that they have achieved the goal that was motivating them throughout their sportive career. Goals, no matter of what kind, are always future oriented. They are an intended change with a planned or expected outcome that is usually of positive nature. The individual is doing everything possible to make a constructed and deeply desired future moment become a present one. They are now devoting their present time to a possible future. Once this desired goal is achieved, the individual loses the reason to work towards a future. They may now either set a new goal and continue their path in positive terms or they might experience a moment of rupture, as they now lost

their ultimate desire (Jancosek, in preparation). For professional athletes, who are personally devoted to their sports the latter is usually the case. Yet for enthusiasts and psychologists concurring the Beal's Conjecture, the first option should be just fine, as there are still many more mysteries to solve in both, mathematics and psychology.

Besides the idea of personal goals, Beal's conjecture offers the opportunity to address many more questions regarding the prime interest of this chapter. The next one shall be: *"What happens if we chose to keep in touch with Beal's Conjecture for a bit longer and expand the idea to a theoretical model in psychology?"*

Taking the equation one step further, we can add another power to each of the positions within the equation:

$$\left(2^9\right)^x + \left(8^3\right)^y = \left(32^2\right)^z$$

Keeping the coprime aspect, we open a new view on the matter of relations and proportions in mathematics but also in other sciences. In psychology it becomes relevant as the dimension of thought, which may be either personal or collective. Speaking of collective thoughts, we can easily confuse them with beliefs, yet beliefs are unfortunately a dead-end, both to science and further inquiry of thinking. Once we interpret something as a belief, it may be understood as an absolute truth for the given moment. Both, absolutes and truth are dangerous matters in psychology and need to be approached with caution. In this case, collective thoughts can be taken to a higher level by bringing in the notion of semiotic mediation (Valsiner, 2017) and thereby removing the idea of the absolute. Common collective thoughts can be best presented through the question:

> Are you thinking what I am thinking?

Without being informed about the thought process of the other one, the interrogated person may easily answer the question with a "yes", given that they think to know what the other one is thinking. The individual thought becomes partially collective without being shared verbally, but as the sharing is already happening, there is no need for further verbalisation. The parts that can be shared are the ultimate outcomes of the thought; the meaning, reasoning and construction part are completely diverted. The process of hyper-generalisation happens here in a conjecture between a moment, context and something else, that both people sharing the thought have in common. Just in this moment of realisation the present moment becomes past and context dependent, allowing for a clear striving towards the future. Knowledge about collectively shared knowledge causes feelings that are highly individual. For a murderer who knows how they committed the crime, knowing that the chief of the police department knows, might evoke a rather different feeling than for a woman who knows that the gentleman sitting at her table is about to propose to her. This discrepancy questions the idea of generalisation and even its need, as it was now demonstrated that shared knowledge does not equal a common experience. Psychology aims to study both – what individuals (and collectives) know and what

they feel. Neither of these matters can be quantified or given a value, as knowledge is priceless and feelings are strange. Numbers are exact and limited, which is why their way into psychology under the disguise of statistics is rather surprising. In this way, it is possible to speak of psychology of non-psychological phenomena as a number gives an impression, abstracts and acts seriously in social science (Valsiner, 2017). Numbers also create the impression of value, which tries to be interpreted as the value of science. Beal's Conjecture opens up an opportunity to integrate numbers into psychology in a different way, as this mathematical statement also includes the question of the largest and of the smallest number. If there should be a largest and smallest number, are they just plain opposites with a + and - attached? And if we today should know a number that is possibly bigger than the highest number, how do we define its value?

Time and space are dynamic matters that undergo a constant expansion in one or multiple directions. If our more distant surrounding is constantly expanding, so should our knowledge and the capacity to communicate it. Numbers aid very much in terms of communications, as they act as signs behind which a size, amount or some other quantity or value can be hidden and recognised by the interpreter. Time and space have possibilities for quantification, even though they are both of dynamic nature. This is perhaps one of the differences those units have to the equally dynamic human mind. Quantifying its content, processes or nature is rather problematic, as the measurements will be always contextualised and time-dependent. If we should be able to measure someone's mental capacity today, it would be different from yesterday and tomorrow. And if we would do so, objective measurements and tools would be necessary. IQ tests declare themselves as such tools, yet what they actually measure is the current performance and a limited range of execution. Thereby they fail in delivering knowledge about the range and possibilities of the individual's mind and intellectual ability. Here it is also polemicising if it is necessary for the individual to show measured mental excellence in all the spheres such tests are trying to study or whether one would be just fine with average performance in some regions, but exceptional in one or a few. If we take this idea into everyday instance, the example of the practice of Dr. Fiquet demonstrates this idea in a very interesting way. Dr. Fiquet is a famous French orthopaedic surgeon, who only specialises in surgery and reconstruction of the cruciate ligament. He is being visited every year by hundreds of patients, seeking help with this problem. Together with his team, he performs an average of about 1700 surgeries a year on knees and cruciate ligaments only. For his excellence in this particular field, he has won multiple awards and is ranked amongst the top cruciate ligament surgeons worldwide.

Dr. Fiquet would sure be able to do other kinds of orthopaedic surgery, yet his performance would perhaps not be as excellent as the one on cruciate ligaments, simply because he is not often engaged in such surgeries and perhaps does not feel as interested in them as he does in his specialty. This is the case for all of us, even if we are not world class surgeons. We are better at tasks that we perform more often and at ones that we are actually interested in. Passion and devotion usually walk hand in hand and create a strong base for possible excellence. We cannot be the best

in everything, but each one of us can be great at something. Whether this is an advantage or disadvantage to our lives and existence is still an open question. Perhaps there will be some psychological test created somewhere in the future that will let us know more about it.

## Striving Towards the Unknown – A Future Oriented Guess

The model of Beal's Conjecture opens up possibilities for further thinking and at this point, it takes us even closer to everyday phenomena by bringing back the connection to physics. One of the most important pioneers of this science was Albert Einstein, who just like Andrew Beal came up with a famous equation:

$$E = mc^2$$

The birth of this equation marks an important point in history, as it has become the most plausible, and still undisputed, explanation of the relation between energy and the mass of an object, where the two values differ only by a constant and their units of measurement. This equation has crossed the borders of its original discipline multiple times and shall do so one more time in the following discourse:

What happens to us when we die?

There are many takes on this question, but choosing to respect all laws of physics, it is so, that the energy of each human, animal or other living organism cannot simply become lost (Clark, 2022). Humans and animals have an energy – it may be seen as a spirit, as their psyche or something else. Yet it is a force in a deep connection to their body. The soul cannot be taken out of a human and once the human dies, the soul cannot simply leave the body as those two are deeply attached through a constant. The mass of the deceased organism will become reduced by natural decomposition process which in their attached energy becomes either transferred directly or aids in the catalysation of those processes. Yet, what happens to the mental energy? This question is rather philosophic, but the answer is again very pragmatic and can be found within the idea of energy conservation. The first law of thermodynamics states, that no energy gets created in the universe, and none is destroyed (Günther & Müller, 2019). All our energy, every vibration, every bit of heat, every wave of every particle that was an organism once remains in this world (Freemen, 2005). Now looking at the other end of the story, towards the rather joyful event of life creation, it is so that once a life is created, there is a beginning to the process of connecting a mass to an energy with the help of a constant. As the constant represents the infinite, both in mathematics and physics, each newly created life confirms over and over again the idea of energy conservation. Although some science fiction writers have introduced us to the idea of aliens entering our body and creating a new life through this method, it is much more probable that the energy starting this new life comes from something that was already present on the planet earth. Yet the possibility of

alien fertilisation does not necessarily go against the laws of physics as they would also only come with some energy already existing in our universe. Nevertheless, all included scientific views have some ideas about the past, presence and the future, but the intriguing part about all the constants, including the ones in Beal's Conjecture is that all of them have to start somewhere. In this way it may be that all infinities are finite on one end – at their beginning.

Returning to the beginning of this chapter, a psychological detour is now necessary to observe one more interesting idea originating from the connection between our minds and Beal's Conjecture. The conjecture has very specific requirements that need to be fulfilled in order for the mathematical statement to be true in the first place and to work further in the way it intends to. Afterwards, expansions become possible, as the base is set for them to function (see previews section). This logical build up is the framework for most developmental processes and the whole schooling system, in which children are first instructed to learn to write individual letters, which then can be expanded into words, then into sentences and so on. But can sentences still be seen as words and words as letters? This kind of question is just right for the grounds of tautology, a discipline in the mathematical-philosophical sphere, which represents the creation and analysis of formulas or assertions that are true in every possible interpretation. Such statements have two end possibilities, and can be written down as an "either–or" sentence:

> Either the sky is blue, or it is not.

The sky is blue and once it is pink it is not blue. So the statement is true. If it is any other colour, the statement is also true. The philosopher Ludwig Wittgenstein first applied the term to redundancies of propositional logic in 1921, borrowing from rhetoric, where a tautology is a repetitive statement. In terms of logic, a formula is satisfiable if it is true under at least one interpretation. Thereby a tautology is a formula whose negation is unsatisfiable – meaning that it cannot be untrue.

The expansion of the Beal's conjecture from $a^x + b^y = c^z$ to $(a^x)^\alpha + (b^y)^\beta = (c^z)^\gamma$ includes the possibility of interpretation as the exceeding of the general requirement. So, what if the requirements of something are exceeded up to a point in which this something becomes something else? If the sky is blue and pink at the same time, then simply it is and is not just blue, so the tautological statement still remains true. But if we speak of a child developing from a boy to a man at the time of puberty, where the individual has exceeded the requirements to be called a boy, but not yet reached the ones to be classified as a man, the person finds itself in a liminal moment, of neither A nor B, but some kind of vague C. Metamorphosis is just one of many states, during which absolutes vanish and the focus comes to the dynamic processes. Tautology focuses on stabile instances, but psychology deals with dynamic ones. And one of the most interesting dynamic processes of the human mind is procrastination – a state where borders of thoughts are being let loose and the mind manages to visit corners that it perhaps might not have intended to (Campill, 2021). A thought is followed by another one and another one through associations that might be based on logical, emotional or personal connections.

One general idea is being followed by multiple new ones that may also expand into other ones, etc. Mindmaps are tools to capture such mind flow processes, yet by their consciously controlled framework, they fail to allow for the absolute freedom of thought and manage to bring the person back to the general idea. Thus they are not suitable for procrastination (Fig. 1).

If we procrastinate with the Beal's Conjecture, we can add infinite amounts of powers to the powers of all the positions within the statement.

$$\left(a^{x}\right)^{\alpha^{n1}} + \left(b^{y}\right)^{\beta^{n2}} = \left(c^{z}\right)^{\gamma^{n3}}$$

By this, the integrity of the statement does not get lost. It expands to possible infinities and visits corners or numerical heights that are perhaps too large for the

**Fig. 1** Women's thoughts (Ovsyannikov, M., 2022, created for the purpose of this chapter)

average psychologist. The average psychologist has gone so far within the process of procrastination that they visited the very distant world of mathematics to access a little bit of knowledge about the mind itself. What other questions will be now possible to ask with the realistic possibility of receiving an answer and what other distant worlds will connect and surprise scientific harmony is something only for time to tell.

## Revisiting the Past and Discussing the Openness of the Future

Science is a continuous process of acquiring information about something the scientist wants to know about and knows too little about yet. No research on the unknown can be made, even though some claim that the space and time is unknown (Valsiner, 2009, 2012a). Research regarding time and space is always based on a guess – and the desire to do such research excludes objectivity in itself. Research about the human mind is not different in its principle, but very much in theory and approaches. While many people respect physical and mathematical sciences and are shy to enter their complex worlds, psychology seems like a "one size fit all" science that is made for everyone to join and discuss.

Psychological everyday phenomena regarding ourselves concern us directly and consciously. Numeric phenomena in the world of mathematics or astrophysical discoveries concern us just as much; we may just not be directly aware of them. So it happens that almost anything can be labelled nowadays as psychology. This is not necessarily wrong, as psychology can truly contribute to discussions about all kinds of topics about the everyday life, as well as complex and abstract theoretical models. It is not about the knowledge itself – it is much more about how it will be put to use.

In the movie "Music and Lyrics", a psychologist decides to help Drew Barrymore by trading her clothes so Drew can confront her former lover and move on from her past towards a future with Hugh Grant. The psychologist trading her designer dress for days old jeans and a simple shirt excitedly says: "I have worked as a psychologist for 10 years and this is the first time I've actually helped someone." In this chapter, psychology is not changing the love life of Drew Barrymore and Hugh Grant, but contributing to the understanding of time as an inseparable part of our existence.

Psychological knowledge obtained in this chapter is neither of strict natural science nor of social science – but actually, we are including both of them, but somehow it became something else in the process. Thereby this knowledge is liminal, fulfilling the requirement of communication and also leaving the possibility for open access and interpretation.

Besides the wide range of application in terms of psychology, Beal's Conjecture has helped in confirming a very important theorem:

By adding multiple powers to the equation, its integrity has not been ruptured and the constant of the initial positions manages to remain intact even if the process is repeated multiple times. This is the case, if the equation is kept the way it is – as

on open system. If closing the constant into brackets and inducing powers to it as to a closed system, the expansion process of the numbers will become cyclic.

$$\left(a^x + b^y = c^z\right)^N$$

By caging the open system into bracket borders, the general idea of the conjecture will become conserved and is no longer able to be extended; still it is able to continue working as it is. Hereby the equation starts acting like any other one and shall just continue to multiply itself. The equation in this constellation confirms that x + x = 2x. The double of a number will always equal the addition of the number and the number itself. So, x = x. 1 + 1 will always be 2.

We can go the long way with studying the rational background behind numeric operations, or we can lift two different fingers on our hand and count how many they are.

This is what essentially makes up the nature of psychological thinking and allows for popular psychology and abstract theoretical psychology or psychoanalysis to share the same label in bookstores. For either corner of psychology, time plays a significant role, as all dynamic processes are strongly connected to the notion of the irreversibility of the past, a liminal present moment and an inescapable future. Psychology cannot escape time and, now, time will not be overlooked by psychology anymore.

Central for this is the role of the organic metaphor, as it describes and represents the idea of escaping brackets and borders and finding meanings in things that at first look mean something drastically different. Here, as a meadow (Campill, 2020) consists of individual flowers that in their given symbiosis create something beautiful. At some point a meadow stops being a meadow; for example if we put a fence around it, it may be a garden. If there are more trees growing, it may become a forest. It can turn into any natural constellation without losing its initial values and properties. The same could be said about time, as it keeps passing on as we count minutes and hours, yet it is up to each individual how they choose to perceive, use and spend it. In order to keep its metaphorical integrity, the dynamic time flow needs a static counteract, which here becomes the illusionary belief of stopping time. Per se, human beings are rather powerless in terms of controlling time (Campill & Valsiner, 2021).

However they are incredibly powerful when it comes to deciding what they want to do in their given time. Sometimes it may be spent writing a scientific paper, and sometimes time is just a metaphor.

## Dialogue Sequence

*D: Psychological time is different to the physical definition of time. "Remembering Einstein's time construction". But why is it difficult for use to separate both forms of time? Is time based on physical definitions even experienceable for us human*

*beings or is it just a by our side running counter measurement to help us to norm the overcomplex construct of change by a "Blackbox" like unite?*

Time is such a strange matter, although we think of knowing a lot about it. If we take a discourse into Greek mythology, to a point when there was no time, everything we know of today began in Chaos (and shall also end in Chaos). We have to accept the fact that there was nothing yet. Once the imaginary "start button" of time was pressed (that was once Ouranus covered Gaia). Together with time, as a physical entity, time as a psychological moment emerged. Human beings are great inventors of drama and together with the dramatisation we create a psychological sense of time. And ever since then we wish to defend time, to turn back time, we think that time is slow, or running too fast etc. but actually we are subjectifying something highly objective. Whenever there is an object, there is also the interpreter. By becoming an interpreter, we turn the object into a Gegenstand. This is how we have come full circle in terms of different meanings of time; on one hand it will continue passing by and on the other hand, human beings will do anything possible to keep it from its marvellous simplicity and power.

*D: How far is setting goals also an experience that we tend to stabilize – time freeze – even though the goal actually is following us in our transition between the physical laws of "reality" and in-between the complex construct self.*

– Setting goals is a wonderful example for such an act. Even though, it is quite a complex structure:

– We first need to come up with the task, evaluate its difficulty, our abilities, and rationalise how quickly we can have it completed. If there is a set deadline, we must evaluate the best strategy to make our work adhere to that deadline (again the notion of time comes in). Sometimes though, we do not manage to keep the deadline, no matter if it is set by ourselves or someone else. Then we simply go over time. And in this way, we act against the physical absolute of time.

*D: In the past, it has been often quoted that the second one on the winner podium and maybe the fourth one is the unhappiest under the eighth best. Ironically, this changes in the context of the athlete. For me personally, the focus was set on the second place instead of the first, simply based on the difference of pressure: the first one can only protect his title and is lost in a competition against himself, while the second is forced to shoulder high expectations that are stronger connected to the belief as to the awaited result allowing a less pressured future. In other words, the second one is the first loser and so the one closest to be the next winner while the experienceable developmental potential is conserved. (Little insight from my side).*

– Certainly, but sometimes sports, especially the Olympic Games, come to a high standard in which the achievements of the top 10 are almost equal. Their separations are in microseconds, millimetres or decimal points. In such cases everyone feels to have a chance to win. Thus the moment of not-winning becomes a disappointment.

– But some, as you said, may not have set their mind on winning. They may just want a medal or place in the top 10, achieve a personal best, whatever other goals there might be. If the personal expectations are fulfilled, one did exactly what they wanted to do. If they did not achieve their goals, the feeling might be frustrating as in competition they only depend on themselves, may only blame themselves and once losing, they are being let down by themselves. Oneself is the closest "person" we all have. It is hard to take such a letdown. Here it is a very intense dialogue of the self-as-an-athlete and the self-as-an-individual (very basic level). Both parts of the identity play important roles for each person and once the dialogue turns into negative terms, the person experiences negative feelings. Here psychological work is very important, because athletes will often be confronted with failure and not achieving their goals. In order to process this in healthy ways, focused work with the inner dialogue is in order.

*D: You mentioned the Olympic Games. Maybe interesting here to underline that the games themselves are also used to stop time. The title stays always with the winner of that year and even when the athlete would be last one on the next event the title of the best would be conserved and would allow him to be honoured even when six new better Olympic winners have been found.*

– Absolutely, by becoming an Olympian, a person adds to their personal values something permanent that cannot be removed. One cannot un-win a game. Here two interesting moments can be observed; for once, the abrupt change from not being an Olympian to being one and then the continuous state of being the Olympian even if the Olympic Games have ended.

– Interesting might be the thought about the ones who wanted to become Olympic Champions but did not succeed. They invested large amounts of time into becoming the Olympian, competed and tried just like the ones who did one. To the non-winners, this permanent change did not happen and they might either try again or give up this dream and live on like non-champions. But here we are drifting more to the idea of coping with loss. Actually even interestingly, a loss of something that was never actually there, but was something the individual hoped for.

## References

Abdalla, E. et al. (2021). *Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies.* Submitted to the Proceedings of the US Community Study on the Future of Particle Physics (Snowmass 2021).

Campill, M. (2020). Towards a Wholistic model of identity: Why not a meadow? *Integrative Psychological and Behavioral Science, 55*(1), 112–127.

Campill, M. (2021). *Dialogue around favors: Introducing a field model of how service is psychologically possible*. Human Arenas.

Campill, M., & Valsiner, J. (2021). *Spiral and helical models for Psychology: Leaving linearity behind*. Human Arenas.

Clark, M. (2022). *A replay of life: What happens in our brain when we die?* [online] Science & research news | Frontiers. Available at: https://blog.frontiersin.org/2022/02/22/what-happens-in-our-brain-when-we-die/. Accessed 1 May 2022.

Ehrenstein, W. H., & Ehrenstein, A. (1999). Psychophysical methods. In U. Windhorst & H. Johansson (Eds.), *Modern techniques in neuroscience research* (pp. 1211–1241). Springer.

Eriksen, E., & Vøyenli, K. (1976). The classical and relativistic concepts of mass. *Foundations of Physics, 6*(1), 115–124. Springer.

Fechner, G. T. (1860). *Elemente der Psychophysik. Bd. I & II*. Breitkopf & Härtel.

Günther, H., & Müller, V. (2019). Einstein's Energy–Mass Equivalence. In *The Special Theory of Relativity: Einstein's World in New Axiomatics* (pp. 97–105). Springer.

Hermans, H. (2001). The dialogical self: Toward a theory of personal and cultural positioning. In *Culture & Psychology (2001), Vol. 7/3* (pp. 243–281). Sage Publications.

Hudson, G. V. (1895). On seasonal time-adjustment in countries south of lat. 30. *Transactions and Proceedings of the New Zealand Institute, 28*, 734.

Hudson, G. V. (1898). On seasonal time. *Transactions and Proceedings of the New Zealand Institute, 31*, 577–588.

James, W. (1890). *The principles of psychology* (Vol. 1). Macmillan.

Jancosek, N. (In preparation). *Psychological dilemmas at exiting from competitive sports: Coping with loss and the life-course continuity of devotion*. SFU.

Paul, M. (2022). *Your memory is like the telephone game.* [online] news.Northwestern.Edu. Available at: https://news.northwestern.edu/stories/2012/09/your-memory-is-like-the-telephone-game

Picione, R. & Valsiner, J. (2018). *Psychological functions of semiotic Borders in sense-making: Liminality of narrative processes.* [online] academia.Edu. Available at: https://www.academia.edu/34442443/Psychological_Functions_of_Semiotic_Borders_in_Sense_Making_Liminality_of_Narrative_Processes?auto=download&email_work_card=download-paper. Accessed 1 May 2022

Stenner, P. (2018). *Liminality and experience*. Palgrave Macmillan.

Swidler, L. (1994). *After the absolute*. Fortress Press.

Valsiner, J. (2009). *Dynamic process methodology in the social and developmental sciences*. Springer.

Valsiner, J. (2012a). Psychology Courting Culture: Future Directions and Their Implications. In J. Valsiner (Ed.), *(2014), An invitation to cultural Psychology*. Sage Publications.

Valsiner, J. (2012b). *The Oxford handbook of Culture and Psychology*. Oxford University Press.

Valsiner, J. (2014a). *Functional reality of the quasi-real: Gegenstandstheorie and cultural psychology today*. In *Culture & Psychology* (Vol. 20/3, pp. 285–307). Sage Publications.

Valsiner, J. (2014b). Towards cultural psychology of affective processes: Semiotic regulation of dynamic fields. In *Estudios de Psicologia (2014)* (Vol. 31/3, pp. 243–251). Online Journals.

Valsiner, J. (2017). *From methodology to methods in human Psychology*. Springer.

# The Regeneration of the Space of Landscape: Where Experiencing Is Fundamentally Sustained

**Masayoshi Morioka**

The snowflakes that dance in the air like a dream of a husband, who has passed away due to the Corona disaster. Keiko Sugawara
[コロナ禍に逝きたる夫の身残しの夢のようなり舞いくる雪は 菅原恵子][1]

When I reach out my hand to meet my elderly mother on the day of visitation, I am blocked by an acrylic board. Miharu Sugiyama
[アクリル板に阻まれて逢ふ面会日手を伸ばせども老母のとほし 杉山みはる][2]

## Introduction

The crisis of the Covid times is an unknown threat to most people and uncertainty reigns. It is yet unclear what is troubling us, and a vague sense of insecurity permeates the situation. We become disconnected from what was previously self-evident. It is impossible to be optimistic that the situation will eventually be resolved, and life will return to normality. People all over the world face the chiasm between life and death, the nature of interpersonal relationships is regulated, and the very relationship between oneself and the environment and the world itself is forced to undergo major changes.

Subtle tensions and conflicts are included in the experience of daily events. This is highlighted by the invisible threat of the Covid time. The foundations of our

[1] (Quoted in 'The Corona Disaster Poetry Anthology', edited by the Modern Poets Society, 2002).

[2] For the quoted Rei Naito art, refer to the following site.
https://bijutsutecho.com/magazine/interview/promotion/24711/pictures/1

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experience are inherently fragile, and tension and anxiety may always be present. In this situation, we are sensitive to this. The here-and-now experience contains something undetermined. The crisis of the Covid time fluctuates the way our minds make sense of events as experiences. Where is the domain in which experience is made up? How is it possible to establish what makes and supports the ground for receiving events as experiences?

In the Covid time over the past three years, it seems that a rupture has occurred in the very space such that was based on face-to-face counseling sessions, and this space has qualities that are co-created by the therapist and client who participate in it and engage in dialogue. The very natural feeling of being close to someone else seems to have been closed off, online artificial spaces have become the order of the day, and the inherent sense of meaning associated with the landscape seems to have been diluted. Now is the time to return to the pre-conceptual dimension of experience and explore what is required now to achieve this.

To approach this theme, a difficult process of giving some form to the unspeakable and unrepresentable can be expected. It is necessary to take up the challenge of the field before awareness, which is usually not even perceived. The focus here is on the indeterminacy and unknowability of one's bodily experiences and relationships with the presence of the other in front of us. Now that what was self-evident in everyday life has been shaken by the Covid time, how do we perceive the pre-subjective experience before the object rises, so to speak, and how do we open wup the field of co-experience? In the current situation, this issue is an unavoidable one.

On this argument, the author draws on some of the classical theories of clinical psychology to provide a clue to this question. This work remains within the scope of the understanding of the local situation and does not aim at universal theorizing. It is hoped that by following the above path, we will be able to approach the world of the organic metaphor, which is the subject of this special issue.

## Lived Space

### *From a Tableau*

I came across an impressive exhibition last autumn. It was the exhibition 'Breath' by Rei Naito (Fig. 1). The screens are lined with thin, faint traces of color and shape, stain-like screens. They are arranged according to the date of the artist's inspiration. When I stare at the tableau, I feel as if I am being transported somewhere. It is as if I am looking into my mind, or that I am exchanging some words with the artist in my mind. Through the faint traces of color and shape, I am aware of my breath and posture as I interact with the tableau. It enters my mind. As if intersecting with this movement, a space with depth unfolds on the other side of the screen. It is another space that cannot be measured only by the dimensions of the tableau, the relationship between the arrangement of the colors and shapes scattered around it, and the distance between the tableau and me looking at it. In other words, another space that arises through sensory experience, which cannot be reduced to perception, spreads out.

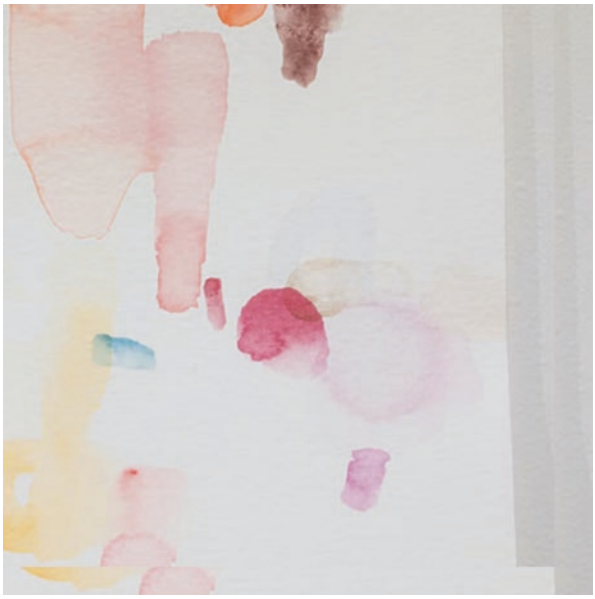

**Fig. 1** Rei Naito 'color beginning' (detail) 2021, acrylic on paper © Rei Naito[3]

What is the nature of this space? The artist told me that she was also inspired by the Rorschach test. Here, from a psychological standpoint, we see how the mind works in terms of projection. The Rorschach test was devised by illustrating the ink stains that appear when ten ink blots are folded in half and unfolded. The subject is asked 'what do you see' in each illustration. The illustrations are rarely seen in everyday life. In other words, each image is an encounter with the unknown world for the person being tested. The test attempts to read the characteristics of how the subject copes and reacts when placed in such an unfamiliar situation.

[3] The Squiggle Method was devised by Winnicott, D.W. (1971) in the clinical setting among the drawing methods, and it is a method in which the two alternately draw something on paper to make one picture. Nakai, H. (1984) developed this method independently. The person who performs the drawing stage is called the 'server', and the person who performs the projection coloring stage is called the 'receiver'. One draws (serve) as you can think of in the 'drawing stage', and the other projects on the drawing line in the 'projection stage' and adds an auxiliary line (receive) to complete. This role is changed several times, and in many cases, one picture is completed for each round trip. This allows the two to communicate visibly without using language.

## *Projection and Composition*

Nakai (1971) divides the characteristics of the space underlying projective testing and drawing methods into two parts, and characterizes the space opened up by the Rorschach test and the Squiggle Method[4] as a *projective space*. On the other hand, the spaces created by Sandplay Therapy[5] and Landscape Montage Technique (Note 6) are characterized as *constitutive space*.

The former is an internal space, a mental space. Its spatial characteristics are floating distance and indefinite. The physiognomy is predominant, and the pre-form is in front of the emergence of the form, i.e., it is filled with pre-Gestalt. There is a process by which one of the forms (Gestalt) is selected by the subject. The dominance of physiognomy is a situation in which the connotation in semiotics takes precedence over the denotation, which Nakai also refers to as predictiveness. Each illustration of the Rorschach test is made up of ink stains. Intuitively, one should be able to respond to all ten illustrations by saying that they look like ink stains. However, it is classified as a rather specific response. The same applies to the Squiggle Method. The shape is read from an improvised drawing, relying on the instruction 'what does it look like'. Both the Rorschach test and the Squiggle Method follow a *paradigmatic* process of selecting one of several similar figures, in the sense of selecting one of several synonyms from the standpoint of Semiotics.

On the other hand, Sandplay therapy and Landscape Montage Technique are constructive, in contrast to projection. Constructive space has the characteristics of external space, where distances are clearly defined by the presence of an outer frame. The center and periphery, top and bottom, left and right are then structured. It is characterized by a constitutive process that 'selects "distance" as one of the essential elements under the phase of objecthood' within the external space (Nakai, 1971/1984, p.61). The process is *syntagmatic* in Semiotics, in the sense that the

[4] It is based on what Lowenfeld, M. created The World Technique and published in 1929. Later, Kalff, D. further developed it on the basis of Jung psychology and established it as 'Sandplay Therapy'. Place miniature toys in the sand box and play freely. When Kawai, H. came into contact with this technique, he introduced it to Japan and developed it because he thought it was suitable for Japanese culture, which has more nonverbal expressions than in the West. In Japan, there are traditionally bon stones that create landscapes by placing stones on the bon, and bon mountains and *bonkei* (bon-scape).

[5] Landscape Montage Technique is one of the techniques of drawing therapy (art therapy), which was invented by Nakai, H. in 1969. First, the therapist frames the four circumferences of the drawing paper with a felt-tip pen in front of the patient, and hands the drawing paper and felt-tip pen. As an instruction, I will tell you that you do not look at the skill of the picture, and that it is the patient's own scenery, so you can create any kind of scenery. After that, ask them to draw one by one in the following order. First step: Large view group 'River' → 'Mountain' → 'Rice field' → 'Road'; Second step: Middle view group 'House' → 'Tree' → 'People'; Third step: Other items "Flowers'- > 'Animal'- > 'Stone or rock-like things'- > 'What you think is missing, what you want to add' The Landscape Montage Technique is an approach that contrasts with the interpretation of projection representations such as the Rorschach test, which reads constructive representations that are expressed with integrated directivity for structured spaces within the framework.

direct reference of the object is predominant, and it constitutes a coherence through the selection and arrangement of the object. Once the construction is established, it is fabricated and static, whereas what emerges through the projection is dynamic and kinetic. The trajectory of the movement further triggers the next projection.

## *Space of Landscape*

Erwin Straus, who explored psychopathology from a phenomenological standpoint, distinguished between Space of landscape (Landschaftlicher-Raum) and geographical space (Geographicher-Raum) (Straus, 1956, pp.334–340). Space of landscape is a unique space with sensory experiences that overlap with, but cannot be reduced to, the geographic space captured by perception. In contrast to measurable geographical space, Space of landscape is a variable space that is constructed according to our way of being and relating to the world. From the perspective of psychopathology, in schizophrenia, Space of landscape is disconnected from geospatial space and objective perceptual feedback is cut off, causing people to withdraw into Space of landscape. In this case, Space of landscape itself is impoverished because it is cut off from the common world. When a Space of landscape emerges, it is enriched through the comparison with one's own experiences and the perspectives of others. There are a number of tools in clinical assessment, such as Rorschach Test and Sand Play Technique, that can be used to bring up the projected space. There seems to be an overlap between such spatial experiences and Space of landscape described by Straus.

The space opened by Rei Naito's work shifts according to how the viewer engages with the screen. In other words, it is a non-localized, movable space that appears differently each time depending on our attitude and the way we interact with the screen. This is exactly where Space of landscape opens. At that time, I am a little removed from my everyday self, out of my perceptual and objective distance, and immersed in the space opened by the screen.

## *Changing Quality of Spatial Experience*

It may seem somewhat abrupt to start examining the different aspects of space as described above. However, the way we live our lives and the distance between people in the Covid time undergoing major changes. Reflecting on this, we can see that the very quality of the experience of space is affected. For example, with the Covid time, social networking online interactions have become a significant part of daily life. Talking and social events with people on online screens are often attempted, but do not fit in uncomfortable feeling is heard of 'not sharing the same air'. This sense of alienation is important: the space created by social networking sites is like being together, but not sharing the Space. No matter how much we seem to be interacting

with each other online, it is unlikely that the scene will stick as an experience and be recalled as an expansive Space of landscape when recalled.

The environment that surrounds us is like air, and only when it is absent are we made aware of its meaning. The sensations and meanings of the air, the atmosphere, the ambience that surrounds us are only made conscious when they are shaken and fluctuate. For some time now, there has been a pervasive feeling of vague anxiety arising from the environmental changes caused by the Covid time. To resolve this, the restoration of a quiet, stable place is more necessary than anything else. As we spend more and more time alone, we are reminded once again of the significance of 'subtle interchange' between people (Winnicott, 1986). When a Space of landscape takes shape, even if one is alone there, one can feel the warmth of being with someone or something.

## The Space of Memory

There are always unfinished zones in the experience. Zones that stay as possibilities choose one of them and then retreat into the background. In this sense, the here-and-now scene is constructed through a paradigmatic process. Experiences that are not selected from there, retreat into the background and remain incomplete, lead to the creation of the next one. It is a kind of matrix of potential experiences. It may work to create the future.

Let's explore the area that we usually don't realize and have forgotten about. Clues relate to the realm of private experience, memory, and recall. Explore former memories. The space of remembering expands. Distant memories of childhood play. It is also a spatial experience.

### *A Vignette*

I spent my childhood near a large park, which is now an athletics track. At that time, it was a vast field. I chased insects, caught grasshoppers too big for my hands, occasionally lost my footing and got stuck waist-deep in large puddles. The area around my home at the time was a busy residential area, but there were many children in the neighbourhood, and the narrow alleys and roadsides became playgrounds as they were. In the weed-filled open spaces, ears of silver grass grew and spread across the autumn fields. We broke off the thick stalks of awn, which were far taller than we were, and used them as swords, and we played *Ninja* running around until the sun went down.

My childhood is embedded in this memory space. I am not certain whether it is fact or fantasy. At the very least, it is not a visual afterimage of the young me as I saw it. It is a reconstructed image of an experience from long ago that I am drawing

in my mind. In the background, there is a landscape at dusk. My friends and I are playing with the red autumn sunset at our backs, between the houses in the distance.

The geographical space remembered as a fact is not recalled here. The landscape is spread out in the background, person to person, me to me. The space of the landscape of the mind includes my figure and has an expansive background space as well as the interactions between people that come to the foreground. This is the Space of landscape. This space is between people and people or people and things and does not only emerge in the foreground but also has a background that envelops and sustained them. When I am in the Space of landscape, I feel deep down that I am not alone, even though I am playing alone. I am playing with grasshoppers, chasing them. I am unmistakably in that landscape, acting and moving, involved in the events. In a way, it contains a sense of being involved. This sense is sustained by the Space of landscape.

The very landscape is damaged when there is a catastrophe. The self-evident reliance on the Space of landscape fray. The transient occurrence of a sense of depersonalization, such as a loss of memory of the event or a lack of a sense of what is happening to me, can be attributed to changes in the Space of landscape and the loss of a sense of holding by the space. The familiar, usually unnoticed, and quickly passed by, has undergone a transformation in the wake of the Covid time. This, in turn, brought into sharp relief the meaning of things that had been overlooked in everyday life.

If there were no changes in life during the Covid time, for example, if there were no excessive online situations, would the Space of landscape naturally form in daily life and remain in the mind as an experience? Not necessarily. Space of landscape is a space that is created through the involvement of the subject him/herself. It is a Space of creation, where meaning is always created. When we suffer a disaster, when we are wounded, we may not even feel the negative emotions that usually accompany it. Only the shock of the earlier event remains, which cannot be signified. The very groundwork for perceiving the meaning of the event and supporting the experience is frayed.

## Intimate Unknown

### *In-between; Aida(間)*

It is psychopathologist Bin Kimura who states that trust in others is born in the 'in-between', the fluctuation between intimacy and unknown. Kimura (2005) uses various metaphors in discussing *Aida*. *Aida* is explained using the example of musical accompaniment and ensemble situations. The experience of an ensemble is, for the performers, experienced in their own place with a kind of sense of self-attachment. But in the next instant, it could be that the place where the whole music is sounding shifts completely spontaneously to a place other than their own, and the performer's

sense of being is completely absorbed in this place. The fact that the music can move freely between performers in this way means, in other words, that the place where the music takes place is a kind of 'empty(虚) space' that belongs to no one. This empty space is like an independent organism, and 'Music sounds within each performer and each listener, and at the same time it sounds 'between' all these parties' (Kimura, 2005, pp. 39–40).

The 'in-between, *Aida*'is, first, the intermediate area between me and the other. There are times when I am at one end of the space between myself and the other, while at the other end of the space I am the 'in-between' itself. In the 'in-between, *Aida*', there is a self-duplication. If the viewpoint is taken from the individual subject, *Aida* is an intermediary term between subjects, but if the viewpoint is shifted to the shared collective field, I and the other person are moving as *Aida* itself. To introspect and accept the dynamic self-duplication, it is a prerequisite that a free shift of perspective is possible.

On the other hand, the shifting of perspectives is disabled when seen from the perspective of myself. The view from my perspective is always one-sided and my perception of the world is fundamentally lacking. Here, my perception of the world is complemented by borrowing the perspective of the other person. For a mutually complementary field to be established with another person, an active act of throwing me into *Aida* is indispensable. The movement of me slightly away from myself occurs there. Once I leave judgment behind. If I maintain this attitude, the other first appears as an unknown. The sense of the unknown, not just people, is alienating and unsettling. On the other hand, there are sensory-emotional experiences in which the unknown causes curiosity and interest.

Kimura describes the movement of 'inserting oneself into the space' based on the following experience. When travelling or going on an excursion, among previously unfamiliar landscapes, 'that place alone becomes a place with a strangely familiar feeling of familiarity, a place imbued with subjective meaning (relevance). I feel as if a part of my own continuity has flowed into it, or as if the place has entered as a part of my continuity. The house suddenly emerges as a subject in the surrounding object world' (Kimura, 2001, p.304). Of this experience, Kimura describes it as 'strangely overlapping with a sense of familiarity, in which I also feel an absolute unknowability' (Quoted above). Unknowability here encompasses possibility. 'It is unknowability as a subjective meaning, of a fundamentally different kind from simply seeing for the first time. It is not quantitative unknowability, but qualitative unknowability. It is a feeling that my world, which should be known, has been deprived of its knowability in one important part' (Quoted above).

Of course, Kimura's description is only based on the context of psychopathology. By regarding paranoia as an extreme lack of unknowability and schizophrenia as a lack of intimacy, he attempts to contrast the two pathologies and expand the possibilities of understanding. However, this dynamism of unknown and intimacy contains perspectives that need to be examined in the affective relationship between the self and the environment/world, which produces subtle alterations in the body-mind.

## *Dynamic Relationship Between Unknown and Intimacy*

The object embedded in the external world rises and closes in on the self. Unknown but attracting intimacy. The experience of touching here is also a slight departure from the known self. The familiarity of the self is taken away a little. This dynamic is the basis on which relationships and connections are created. Sometimes the known meaning assignment does not work for the unknown. There is still the possibility of rushing to an understanding with the known, but there is also the possibility of standing still together for a while, until new meanings emerge from it. The space that contains the possibilities that arise from this, namely *Aida*, supports and moves the exchange on the spot, but it does not become aware of it. *Aida* can be understood as a shared reality in the intersubjective realm. There arises a movement in which you and I mutually surrender and cast ourselves into *Aida*. It is a dynamic space that constantly expands and contracts between the participants, exerting a pneuma-like force, so to speak. The fact that the appropriate *Aida* is determined each time by the dynamism of you and me means that this space-time is highly qualitative and does not lend itself to quantification. It is a dimension that is difficult to describe in language.

The process of psychosomatic transformation undergone in the environment/world, including interpersonal relationships, seems to involve both the unknown becoming familiar and the familiar becoming unknowable. Movements seem to be at work.

Is it possible, then, to restore this fluctuation in relation to familiarity to the unknowable, such as the Covid time? Naturally, the sense of the unknown leading to possibility relies on a trustworthiness that maintains a relationship with the environment/world. In the contemporary context of the Covid time, where such reliability has been fundamentally overturned, access to intimate unknowability appears to be too difficult a task. The reversal of the familiar into the unknown sometimes occurs in times of crisis and not only in the case of the Covid time. When one experiences a sudden change in the face of everyday life, and one's self is cut off from it, an extraordinary challenge emerges that undermines the contact between self and the world.

The following words are from a Great East Japan Earthquake survivor (male, in his 40 s), describing his experiences immediately after the disaster (Morioka, 2017). The man said, 'When I stood in front of my burning home, the person I had been before was momentarily lifted into the air. I experienced a subtle change. When I realized that everything that had shaped me was lost, what was I? My daily thoughts began to change.'

Later, when the rubble was completely removed and the city was 'rebuilt', he expressed a different sense of loss and emptiness than immediately after the disaster, but he also said the following. 'But I still felt that I was there.' For this man, the self is in the debris. Reflecting on the early days of the disaster, he said, 'When I was staring at the debris, I felt like the debris was melting into me'. This is where the experience of the inseparability of debris and oneself arises. Is it possible to recover

the perspective of seeing the debris and oneself as a living whole? During the crisis of the Covid time, the challenge is once again to recover such a perspective.

## Meaning of Coincidence

View debris and self as a living whole. The man looked at his home, which had been reduced to rubble, and composed a Space of landscape there. The man himself is still there in the space where the rubble has piled up. 'In that space I am rubble'. He lives in such a world. However, if the Space of landscape remains disconnected from the actual geographical space, the Space of landscape in which the man lives will eventually become poor itself, as the objective feedback from perception will cease and he will be cut off from the common world. If he is not careful, he will be shut up within the Space of landscape. I do not separate myself from the debris space but perceive it as a living whole. How can such an experience be recovered?

This waits at the point before meaning is determined. It will maintain a posture that suspends the differentiation by signification. In the paradigmatic projective space, we remain on the plane before the differentiation of meaningfulness. From there, we are led to contact with the background that encompasses us in the Space of landscape, the pre-Gestalt, pre-meaning differentiated world. How is it possible to place ourselves in this world, the pre-existing part of our experience?

In Carl Gustav Jung's note in his autobiography, 'Seven Sermons to the Dead', he contrasts two worlds: the world of *Preloma*, or fullness without distinctiveness, and the world of *Creatura*, or life divided into various parts. The two worlds are contrasted and discussed (Jung, 1963). Preloma is an indivisible world. On the other hand, people and animals also live in a world that is primordially distinctive and identifiable to protect themselves from foreign enemies in the process of living. In particular, people divide the inherently indivisible world by introducing various pairs of oppositions into it. By making distinctiveness this world, we create a reality. In other words, different realities are created by the way they are compartmentalized. How can we here meet the Preloma to the Creatura, the world before it is divided? Or rather, we can see that the divided world, the reality we live in now, is sustained by the Pleroma.

The pleroma can appear in the world of the Creatura, triggered by an accidental encounter with a person or object. It is a moment when a gap in the everyday becomes visible, and at the same time it can lead to the creation of something. Assuming a flow of time succession, things are organized into causal or goal-achieving sequential relations, but on the other hand, events occur that are outside of these sequential relations and cannot be understood. Chance encounters and discoveries can be perceived as a crack in the world of the Creatura, but they can also be an opportunity to give oneself over to a space of coexistence that embraces its heterogeneity and unfamiliarity.

When people come together, something is set in motion. Coincidences arise from such movements. In the Covid time, however, this is precisely what is blocked. People walk freely, come across something or meet someone. These coincidences do not work well. The way our lives work is partly sustained by some such contingency. Jean Oury, founder of the Clinique de La Borde, which pioneered psychiatry in questioning and using institutions, calls the 'coming together and moving' *collectif* (Oury, 2005). Collectif is essential for people to maintain and recover from living after being injured. When opportunities for collectif are taken away, access to the resource of chance is probably scarce.

## Recovery of Storytelling

### *Narrative Mode of Thinking*

In the context of the Covid time, it goes without saying that what is needed is a calm analysis of the situation, an understanding of cause-and-effect relationships and a steady response in accordance with the system. On the other hand, it is necessary to focus on the events experienced by individuals and to restore the narrative practice of making loose connections between events. Jerome Bruner proposed that there are two modes of human thought (Bruner, 1990). One is the 'logical/empirical mode' (paradigmatic mode). This is a mode based on delimiting and relating the subject world with clear scientific concepts and with a close model of causality. In contrast, Bruner believes that there is another mode of human thought. This is the 'narrative mode'. Narrative (narrative, story) is the form, content, and act of language that selectively sequences events and conveys the meaning of experiences (Morioka, 2015; Morioka et al., 2019; Morioka & Nomura, 2021). It is a mode of thinking that relies on the truth of explanation by connecting and plotting between events based on this form.

Bruner (2002) suggests that the drive to tell stories is innate in humanity. This mode uses the conjunction *and* to create loose connections between multiple events; through the associations and meanings connected by *and*, a different world is found than in the logical/empirical mode. In the narrative mode, the unusual, the unfamiliar and heterogeneous, can be loosely encompassed and placed alongside the ordinary (Bruner, 1990). The narrative mode of thinking is easily adapted to depict the creative process of producing something. Connecting various items with 'both... and' leads to new discoveries. Or, to place oneself in the undetermined world of 'neither …nor ', to appreciate it and wait for the time to ripen. Instead of hastily judging an ambiguous situation and rushing to conclusions, we receive the situation and stay with time until the next one is born from it. The narrative mode of thinking fits in with the processes associated with such creation. The preconscious experiential system is related to the narrative mode.

### *Space Opened by Narrative*

As is well known, stress-related societies have issued guidelines named 'Psychological First Aid' (2006). Basics are support, listening, empathy and information. According to Psychological First Aid, support means first, 'being there'. In emergency support, this is in fact the most sought-after attitude. The goal is to provide a sense of security. Just the fact that someone is there can make people feel safe. The warmth of a person is the best help. In situations where this warmth is lacking, it is an important attempt to create diverse adjacencies. Things to put alongside one's life. Favorite music, art, photographs and films, memorable buildings and landscapes, and collections and books. All create an important personal environment. Culture creates the environment that surrounds the individual. Everyone holds the intangible cultural environment that has sustained him or her, i.e., the Space of landscape.

Even if we and our neighbor sit together silently, we cross each other somewhere. An invisible zone of intersection is created between them. Silence also creates a movable space. It is not a fixed space of social distance as measured by a ruler. Nobuo Kioka states that the greatest function of a narrative (語り) is to inspire other narrative, thus opening up a space of mutual narrative (Kioka, 2007). The space opened by narrative is not a geographical space. It puts aside once and for all the objective stipulations of time and space. It can even fluctuate one's own disorientation. It is sometimes the case that when one is immersed in a narrative, one loses track of where one is at the moment. This is not a unique situation, but one that occurs when children are absorbed in play, losing track of time. The opportunity to forget oneself, to leave oneself, is the basic movement that takes place in play. The landscape that emerges at the end of this process is what sustains the groundwork of our experience.

In a non-linear, vital process, narratives create a new reality of experience (Modell, 2005). According to Robbins (2008), the metaphorical potential or metaphoricity of an experience refers to the optimal vagueness of an experience with respect to its present, past, and future meaning—a necessary vagueness or openness that allows future and past chains of experiences to be meaningfully conveyed to each other. Telling the story temporalizes spatial elements. It opens up a place for events to come. Reclaiming a metaphorical relationship with the world creates new meaning. It leads to the discovery of hidden relations between events. This work of re-metaphorization brings us great joy.

## Concluding Remark

Arthur, C. Danto (1981, p.175) suggests that metaphors and artworks share a similar structure. They invite us to see a common object as something else. Artworks and metaphors transfigure a common object that we thought we knew and, in doing so,

they change our ways of seeing it. Aesthetic experience constructs an imaginative space in which art and metaphor happen.

Last autumn, when the COVID-19 infection situation had somewhat abated, I went to a concert by Valery Afanassiev at the Phoenix Hall in Osaka. The concert left a lasting impression. The program consisted mainly of Bach's Mean Clavier Cycle. The concert leaflet included a text by Afanassiev entitled 'On Bach'. It began, 'Only one blank sheet of paper can represent your music. For it is all-embracing. Whether it is one sonnet by Shakespeare or one cantata by Webern: .....'

Afanassiev is often described as a musical philosopher, and his concert is not about being treated to a piano concert but the experience of a performance that is about to begin. His whole body weaves out each note as it carefully looks at Bach's score. Something begins there. It is a time when new music is just starting up. In fact, I lost track of whether this is Bach or whose music it is. There were several moments like this.

A space before meaning, which fundamentally excludes words. It could be described it as a 'blank space'. In the blank space before signification, it is the power of sound that is produced, that a new world is created there. On the other hand, there is also something that is constantly repeated when some kind of art, not just music or painting, is born. Sometimes we come into contact with this something. This something may be eternal, transcending judgment such as subjectivity and objectivity. Within experience, there is an intervening transcendent that makes it possible to experience. *When I come into contact with this repetition, I feel a spiritual and unearned happiness.*

## Dialogue

Questions from a reader: *'I would like to read more about your dialogue with the artist in your mind. What position has the artist in this moment, what are your feelings to him? What roles are represented in the encounter with the pictures? 'Each picture is an encounter with the unknown world for the person being tested', who is testing the person? The artist and observer the environment or the person self? For what position it is unknown and how does it can be described in the context of a landscape?*

In response to your question, I would like to add the following to my experience at this time. *A screen enters my mind. As if intersecting its movement, a space of depth unfolds on the other side of the screen.* At this time, I am still in a state before I have captured a coherent meaning. Once meaning is created, it is connected to words. Its semantic action comes to be used automatically.

This is a state before they call out to each other with their proper names. In that space, they become shadowy figures of each other's existence, standing side by side rather than face to face. It is as if only the other person's breath can be felt softly. I do not know where I will be led from there. When I give myself over to the space with my whole body, I am lulled to sleep. In a half-awake state, I feel like I am

returning to my childhood and following the memory images that spontaneously come to mind. Instead of pursuing the meaning of the images that come to mind, a group of images that cannot be reduced to semantic content are brought to light, and if I continue to face them, I can shake up the fixed semantic world and get closer to the first occurrence of the experience.

Questions from a reader*: 'I have heard once a similar sentence by a Mangaka looking at the work of others, speaking of their fonds and their picture orientations for the pages: A Manga inhabits such complex meaning as in a Rorschach test and represents the dreams, fears and thoughts of the creating Mangaka-hidden in the background of a story.'*

You are right. In the Japanese cultural tradition, there is a tradition of picture scrolls and *haiga*, which is characterized by the drawing line itself opening up and creating new spaces. Manga can be seen as building on this tradition.

Questions from a reader: *'What is the relation between your space of landscape and the time that passes on this landscape? What role has time in the perception of it? Time from the observer, time from flowers and animals on the landscape, time of the annexed landscapes – what changes in such interrelations?'*

The relationship between the Space of landscape and the passage of time is my next major challenge. When recalling an event, an event can overlap and intersect with events of a completely different context, creating a new Space of landscape with a sense of reality. People intersect dreams and reality, reality and fictional worlds, creating half-realities or quarter-realities. Such half-realities are necessary for people to live.

Also, putting events into words 'here and now' and speaking about them in the here and now itself has some effect on what is said. The act of remembering and telling here and now changes the meaning of past events, while the here and now of remembering is affected by the past and the future. The future and the past creep into the space arising in the here and now like shadows. The phenomenon of past and future time mirroring the present in the spatial field of the present, intersecting with each other, and giving rise to new meanings of life, can be named here as 'shadows of time'. Through events being narrated and transferred to different semantic spaces, new meanings are also created. This is how I would like to respond to the relationship between the Space of landscape and the passage of time.

Final thought of the author:

This work remains within the scope of the understanding of the local situation and does not aim at universal theorizing. In order to aim for a theoretical construction that explains and structures the relationships between concepts, a follow-up could be made. In my case, all of concepts presented in this paper stem from the practical demands of clinical practice. It is assumed that each of concepts will be useful in the context of personal life in understanding their physical and mental challenges and characteristics, and in connecting them to recovery. The meaning of concepts varies depending on the relationship that is created between the client, the family, and the community. In psychosocial support, concepts are used in accordance with accountability based on collaborative knowledge, i.e. knowledge that is created 'together' with the other person (togetherness knowing).

## References

Bruner, J. S. (1990). *Acts of meaning*. Harvard University Press.
Bruner, J. S. (2002). *Making stories: Law, literature, life*. Cambridge: Harvard University Press.
Danto, A. (1981). *The transfiguration of the common place: A philosophy of art*. Harvard University Press.
Jung, C. G. (1963). *Memories, dreams, reflections, co-written with Aniela Jaffé, NY*. Pantheon Books.
Kimura, B. (2001). On the problem of subjectivity of the other. In *Collective works of Bin Kimura. Vol.2. Time and other/On Ante-Festum* (pp. 299–232. (Japanese)). Kobundo.
Kimura, B. (2005). *Aida*. (Japanese). Chikuma Shobo.
Kioka, N. (2007). *The logic of landscape-from silence to narrative*. (Japanese). Sekaisiosya.
Modell, A. H. (2005). Emotional memory, metaphor, and meaning. *Psychoanalytic Inquiry, 25*(4), 555–568.
Morioka, M.(eds.) (2015).*Clinical narrative approach*. (Japanese) Kyoto: Minerva Shobo.
Morioka, M. (2017). Collaboration as generating hope. In Yamanaka, Y. et al.(eds.) The Deep layer of fluctuating Soul- Clinique of mind and body. (Japanese) pp.43-56. : Sogensha.
Morioka, M., & Nomura, H. (2021). Narrative-based approaches in psychological research and practice. *Japanese Psychological Research*, 63–64. https://doi.org/10.1111/jpr.12382
Morioka, M., Matsumoto, K., & Hirose, K. (2019). Narrative-based research and psychosocial practice in Japan. *Brazilian Journal of (Auto)Biographical Research, 4*(12), 437–451. https://doi.org/10.31892/rbpab2525-426X
Nakai, H. (1971). The patient in psychiatry through drawing-the structure of the psychological space of schizophrenia. In *Collective works of Hisao Nakai. Vol.1. Schizophrenia. 1984* (pp. 47–82). Iwasakigakujutsu Syuppansya.
Oury, J. (2005). *Le Collectif: Le Séminaire de Sainte-Anne*. Champ Social.
Robbins, B. D. (2008). Cultural therapeutics: The recovery of Metaphoricity. *Janus Head, 10*(2), 415–423.
Straus, E. (1956). *Vom Sinn der Sinne. Zweite Auflage*. Springer.
Winnicott, D. W. (1986). *Holding and interpretation: Fragment of an analysis*. Grove Press.

# OH— *Guovssahas* Above My Meadow: Introducing the *Gestalt* Explosion as the Core Factor of Meaning Generation


**Marc Antoine Campill, Christian H. Bisgaard, and Jaan Valsiner**

*As children we looked at least once from our playground, in our gardens, into the sky, dreaming of how we achieve the unachievable.* Throughout the history of humanity, a certain fascination directed toward the night sky, especially the polar lights, have been invigorating the imagination of the human mind. For centuries seafarers used the stars as orientation to find north or south, we try to reach other planets and galaxies with rockets, we build for this specified purpose, and we fill our literature with our imagination of what we may find in this infinite void. That unknown space is filled with treasures we could only dream of but never reach.

The colorful glimmer of the polar lights is one of these natural phenomena. It inspires us to understand more of our plant and our self, provoking art and science to reflect the unreachable seen — preserved — in the domain of visibility. In the following paragraphs we want to use this fascination for the polar lights and the elaborated knowledge spectrum to explore one of the most elementary processes of the human mind: *meaning making*. In other words, we want to emphasize the importance of using the metaphor ***visible yet unreachable space*** to elaborate the complex phenomenological *Gestalt* of the metaphysical — unseen process — of *how* human

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meaning is modulated and *how* new meaning emerges. The elementary physical understanding, for example, friction and gravity, will therefore be adapted into a psychological context. The insights gained will then be converted further into central extensions of understanding life challenges that the human of the twenty-first century is exposed to.

## The Polar Lights

Starting with the elaboration of the term polar lights and what we understand under this well-known natural phenomenon — how we feel into the phenomenon as individual human beings — through the processes of hyper-generalized sign fields (Valsiner, 2021). As the label *polar lights* already implies, we can find the polar lights mainly in the geographical areas around the two polar points — North and South — whereby the visibility of the lights is not only restricted to the geographical location but implies certain context conditions to gain its visibility.

The polar lights are also well known by a second name, *Aurora borealis*, a name that has certainly imprinted itself into the historical mythology around the world, for example, the flames of dragons or the astonishing war dresses of the Valkyrie. As fireworks from the skies, the polar lights have been and are the material of legends. As one final example we would like to share another name for the polar lights, coming from the Sami language. This natural spectacle has several names, of which the following one has been particularly fascinating and repelling: "the light you can hear" — *Guovssahas* (Fig. 1).

So what are those lights we can *hear*? From a physical perspective – let us begin therefore with the starting form of the intruding energy that triggers the Earth's reaction to generating such lights in the night sky. The sun emits a so-called solar wind that is in its simplicity constructed by an incredible number of energetic particles, electrons and protons, and some helium[1]. This *solar wind* reaches, a certain time after being send out, the Earth's magnetic field — also known as the magnetosphere — whereby the particles are not reaching the Earth's surface. Hindered by magnetic field lines, their journey is interrupted by — Earth's first borders.

> The field lines are directed toward the north and move perpendicular to the trajectory of the intruding protons and electrons, which in its collision causes the Lorenz force to act. The Lorenz force is in other words deflecting the intruding electrically charged particles, reforming its movement perpendicular to their original trajectory movement so that the movement is meanwhile transformed perpendicular to the magnetic field movement. The solar wind particles are forced to slide, deflected by the opposing force of the earth, around the magnetosphere. They are then re-guided to travel in a circle around the magnetic poles of the earth, where they interact with the upper layers of the atmosphere: ozone, oxygen, and other gases —protecting the symbiosis of the Earth. It is in this context where they can

[1] Minimally represented, while central for its *Gestalt* as "wind."

**Fig. 1** Guovssahas. (Photographs by Christian Bisgaard)

> finally collide with each other and gain the potential to combine with the Earth's own atoms, leading toward the discharging formation of the northern lights.[2]

Immense power becomes released by the friction and collisions between the particles. A process that is happening in a field that is unseen by the human. A constant reaction that is realized during our lives, approximately 100 km above the habitat of our everyday life. A natural phenomenon that appears in front of our perception, whereas the protecting layer stagnates in the perceivable but unseen environment of us humans. The appearance and its intensity and colorfulness are controlled by the activity of the Sun and depend on the Earth's magnetic field and its inner homeostasis.

## The Polar Lights in Our Mind

What is "the mind"?. Coming from a cultural psychological construct we start with the complex understanding of the *Polysemic Multivoice* (*PSM*) rooting from a traditional context such as from Rommetveit's Mr. and Mrs. Smith[3] (1992, 1998) in the

[2] As some will remember from chemistry courses in high school, the polar lights can be observed mostly in a greenish *Gestalt*, a color that is stimulated by the collision of the particles and combination with oxygen.

[3] A visualization tool used to underline the pluralistic nature of our social world, using the metaphorical example of a married couple in their challenging everyday life. In other words, it has been created to emphasize how one action can be observed from multiple positions, changing strongly

new *Gestalt of Max*[4] and the organic metaphorical parallel *Guovssahas* (Bisgaard et al. in press). Similar to the impact of *Guovssahas* in the atmosphere, our meaning-making processes are influenced by the experiencing of environmental stimuli that collide with our individual understanding and force the re-interpretation of the complex interrelation of self, environment, and their coexistence. In other words the PSM represents an equivalent to the homeostasis earth that results from a currently represented multiple self[5] (Hermans, 2001) that is dialoging with the complex overstream of information moving in our environment.

The lights of *Guovssahas* are in other words nothing more than millions of explosions, where particles are colliding and creating a new experienceable construct for the Earth. Identical to this the *Gestalt explosion,* in a diversion of layers in the PSM, the environmental-self repositionings are affecting the semiotic self and trigger drastic changes in everyday meaning generation and conservation. As in the case of the the *Guovssahas*, the distance to the positioning self, Earth, initializes a clearer or better picture (through the metaphore), that in our context can lead to the adaptation of our hierarchical positioning as layered around the current self-field and the following externalization. In other words we can seehow forces affect each other, possibly between and across all layers of hierarchical importance. This can be observed in Fig. 2, as an insight into the challenged self through the irreversible time stream.

To now receive a deeper understanding of the polysemic and dynamic processing of the self we need to retrace its phenomenological *Gestalt* in the specific phenomenon, which underlines the dialogical nature as an acoustic metaphor –music.

## *The Orchestra of* Gestalts Explosions?

Let us consider two potential extreme poles, before diving into the field of gaming: "*the void*" and the "*polysemic noise*",[6] that when approached can be seen as a counterproductive process endangering the human being. Even though we as individuals

from the actual intention of "pushing the lawn-mover" while remaining one and the same observed behavior (Rommetveit, 1998).

[4] Inspired by Rommetveit new illustrative examples have been elaborated, for example the confrontation of Max with his environment during the social changes of COVID-19, also emphazising an inner pluralistic nature that results in our understanding of our current self as an "identity"(more identification process, as the concept of identity as a stable construct does not exist) (Bisgaard et al. in press).

[5] The self as a construct of an incredible amount of different I-positions that are re-connected and used to reflect the ongoing of onself in the environment and time. In other words the self is in this paper's context represented as a multicomplex of different ideals, desires, and wishes that collide and are discussed through projected voices (Hermans, 2001) into a melody of the self -representing temporarily in the now the complex multilayered self.

[6] The "*void*" and the "*polysemic noise*" are allusions connected with the theoretical elaborated I-positions as voices. The construct of the void is standing for the non-sound situation, where the

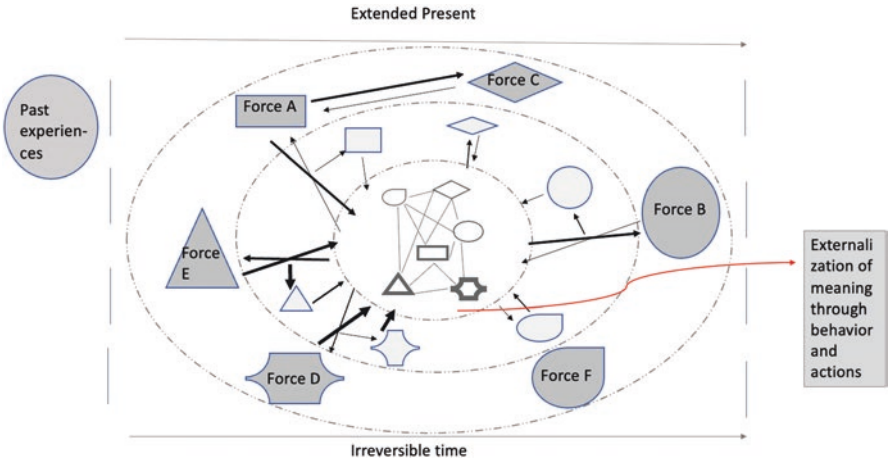


**Fig. 2** A model of the polysemic multivoiced self as a dynamic extension of the dialogical self. (According to Bisgaard et al., in press)

are in the same field as our family, we sometimes interpret situations completely differently, leading us into a struggle to give signs meaning and to create sign fields to once again make sense of the situation and the available signs on behalf of our past experiences (e.g., the distancing regulations following COVID-19).

When a single voice is rotating constantly in us, "I am not Y but X," "I am not Z but X…" whereby the thoughts always ended up by returning to the beginning point X, "I as a Family member." I and my family reciprocally negotiate intersubjectivity, and the voice of family becomes internalized in my internal dialogue. In the moment, when the self, standing in its identification meadow, starts to incorporate only a single voice that helped it to conserve its meadow, the meadow risks collapsing more and more. An over-isolation forcing the current self into "the void," in which we force a simplified discussion, about its self-identity – like a monologue – losing our self in this single voice, in which our existence is bonded completely into our family identity, a minimalizing process that leads us into the dangers of a mono-cultural self-creating self-image that is less resilient and has less dialectical potential (Campill & von Fircks, in preparation)**.** In other words, the self's polysemic dialoguing initializes a process of clearing out the experienced noise by producing an artificial silence where the sound of the inner voices are not simply erased but have been overlapped in such a manner that the sound waves dissolve in an experienced silence. A process that in the context of the *Guovssahas* equals the extermination of the *Lorenz force*, leading to a minimalized existence of tensions for the price of losing a central protection field for the Earth, self. A loss that results in the danger

individual decides to listen only to a single voice that metaphorically echoes in the void and gives the illusion of dialoging. In contrast, we have the "*polysemic noise*," which plays with the experience of being in a crowded place, where we experience a mental overstraining while we try to assign all the voices we come into contact with.

of uncontrollable and intensive *Gestalts explosions* and ruptures, in deeper layers, that instead of inspiring the surroundings to adapt, devastate and exterminate the own potential of growth – forcing into a self-harming stagnation – based on the wrecked homeostasis of the Earth–self symbiosis.

Working within the *Dialogical Self Theor*y framework, we can define the "polysemic noise" as an overflow of I-positions, for example, "I am a family member," "I am not a family-member, but *I am student*, *friend,* and *a family member* …". Starting to integrate every new positioning, or new voice, reorganizing constantly the nature of our current self in its dialogical context (Campill, in press). The self-environment is not allowed to recover and has to neglect a deeper interrelation through reflection. This can lead to the self-identification to only copy the environment until oversaturation—a non-resistance toward new entering voices that can lead to our social self evolving to a non-identity — a mirroring self. The importance of the existing beliefs are neglected, owing to the care given to all the new kinds of input that enter the individual's inner culture, which leads to a stagnation in the processing of self-identification. It is crucial to underline that the danger of the void can be available in any situation, but it does not become a danger for an individuum. Only the stagnation in this behavior is endangering the self's current and future development.

> Stagnation is in this context is less defined as a non-movement in general, but as an experience of stagnation in the development to a currently desired direction. Nevertheless, it needs to be underlined that in this context "stagnation" can also be represented by slight reversed or slowed down development — approaching of the currently projected goals.[7] In this very moment of experiencing stagnation there is a dissonance, the current selves' development is not directed toward the goals of the self, but toward the nongoals to avoid. A process that forces the own perception to focus on a nontarget, an occasion that is making the current self blind to its own extension potential and leads to a reduction in the freedom of interaction that is needed for the following self positions.

In conclusion, in its ordinary state, the current self has to be forced into stagnation, in a direction of one of the extreme poles. Stagnation means on this occasion that the current self, visualizable as a caretaker, is restricting its own sight field by its positioning in a meadow and by restricting the perceptive lens, "what I am focusing on" (Campill, 2021). In the example of the void, the current self is forcing its own meaning making into *one* single I-positioning (direction), taking care of only a single flower and thus only single voices/forces in the field. This results in longer stagnations with one or few voices, and thereby the realization of the current self's role as a caretaker could now interrupt the fertilization process, which poisons the meadow's ground owing to only one or a few voices/flowers exploiting the soil (Campill & von Fircks, in preparation).

By taking these concepts of the semiotic mediation into consideration, the conclusion leads us to a third central position, the "*polysemic multi voiced orchestra*." We could say that we reach this situation at that moment when we can reorder our

[7] In other words our stagnation is directed toward our own current goals and can also in future result in something more positive as expected, as in the case of selective self isolation by individuals with Hikikomori experience, realiszing their emotional growth in the "isolation" period.

thoughts and can construct our own hierarchical orders toward the current situation, to handle the resulting ruptures in "How we see our meadow" and to try to rearrange the meadow, while performing our tasks of everyday life. These experiences show us the constant negotiation of intersubjectivity in the situations we encounter in different minimal communities. Owing to each person constantly being a member of different communities, ruptures of intersubjectivity will inevitably happen following personal internalization of different forces to voices in PSM because every person has different experiences to some extent and different generalized and hyper-generalized past experiences. Thus, different signs become salient and relevant and interpreted more or less differently owing to past experiences inevitably being personal. The self-identification process can fall into stagnation or can be forced into a rupture, if the meadow is filled with an insufficient number of voices or an overflow of voices and if the current self is restricted in its own perception. We have to emphasize that an extreme internally polarized self can also be adaptive under certain conditions such as by the absence of strong new conditions. The extreme polarization of nature is not the condition for stagnation per se, but occurs only in combination with some crucial conditions. A short positioning in polysemic noise and void has to be seen as natural, or even useful, whereby the stagnation in such behaviors results in inner polysemic tensions in the dialogue between the I-positions.

Ruptures of intersubjectivity can happen in any phase of our everyday life, which leads us to the belief that the use of void and noises is needed to fulfill a fluently working evolution of the self-identification process. *As in an orchestra, void and noises (sound) are needed to reproduce a symphony, whereas someone's symphony can be a random collection of disturbing noises to someone else. Underlining the strong relationship toward the historical construction of music, in which music did not simply grow from monotonical into complexity, but constantly changed its direction and so in its nature, as in the, tact following or instrumental diversity of a song visible*. Music was used to motivate the military force by rhythmic and repetitive sounds, or found its use as noise to torture prisoners, or to trigger the imagination of the listeners following the stories or news by longer skips/breaks and by the volume modulations. It is essential here to sympathize with the strong relationship between music and the *Dialogical Self* that once again shows how diverse individual behaviors can accumulate and can result in a strong and complex noise impacting the surrounding by the confronting it

This allows us to now initialize the potential construction of a polysemic multivoiced model where the community self-treats the intersubjectivity as a hyper-generalized self of the community guiding externalization of meaning. To sum up, the *connection, created out of the self-identification process, can be projected in a more general, socially connected network, construction:* the concept of Myth. The PSM in the meadow can therefore be used as a theoretical core process for the individual layers (self-identification) as well as for the social layers (social identification). For this particular purpose we would like to introduce you to the general construct of gaming and its role in our everyday meaning generation.

## *Gestalt Explosion in Game Playing*

To look at an example of Gestalt explosion we will exemplify a pilot experiment called "*The beautiful dress.*" This experiment will allow us to show if gaming can be seen as pure myth that is unfavorable for one's own development or inhabits other impacting forces and abilities. For the purpose of this chapter, we have to give the gamers[12] a more specified form focusing on the most controversial gaming construct, shooter games, where the players can select and design their own characters to a specified level. The gamer creates a new current self, based on his current meaning-making abilities and his positioning in the meadow. The gamer becomes one with his characters and focuses on it to achieve his missions—those of destroying the designated game characters. In our example, the gamers are in teams trying to fight and kill the enemy. In this situation, the gamer is not in a real world, but in a sign world, where he is allowed to kill and where dying is not linked to harming each other. *But what would happen if the gamer experienced a break in this meaning-given world*? For this purpose, we will play now from the gamer's perspective, what happens when a character acts outside of his/her role, when the team inhabits something that was unthought of, or when reality is interfering with the virtual meaning making.

While gaming the gamers experienced a stimulus, a young girl, "playing" in the team and say "*I like that character, because she is so beautiful in her dress. Like a princess,*" which interferes with what they normally experience in their meaning of the world of a shooter game. As a way of preventing the negative experiences of the child, the researcher was playing and listening through headphones, whereby the child only receives the time period in which she has to give her comment on a picture of the character the researcher was playing. The period of the potential rupture was added to the end of the game-period, so that the scores before the rupture can be seen as theoretical normal gaming skills and after the rupture as gaming skills. If gaming in general creates inner tensions in the meaning-construction by violent game-acts, then this experiment would show no impact, or at most, an easy overcoming of the trigger, by conserving the already generated meaning of violent behavior.

Analyzing the experimental setting within the semiotic focus as outlined in the beginning paragraphs, we can say that the gamers are attuned to their specific gaming community. How? The answer is simple. They are participating in their gaming myth and thus in the specific rituals such as trying jointly to get as many kills as possible as well as to get killed as little as possible. What we know from shooter games is that the players can jointly adapt to the different playgrounds and therefore they know how to adapt their strategy toward the different challenges that come with every playground. Here, gaming is not different than football, first by the teleological (goal-oriented) drive within the community and also by the flexible adaptation to particular playgrounds (football arenas).

However, the experiment now sets up a particular blockage at the border of the ongoing flow of experience (ritualistic conduct). The little girl intervenes by stating her positive feelings in saying *I like her beautiful dress.* This comes from

outside — from another community. The clash of communities is made visible in her short but concise statement. The gaming myth of shooter games does not typically involve a deep appreciation of a beautiful dress. This does not fit the war-like setting the players are thrown into and need to make sense of. The players now have at least three possibilities, such as inhibiting the semiotic marker, therefore ignoring it and diving back — unchanged — into the gaming myth. Another opportunity is to get angry shouting at the player that let the "accident" happen or even at the little girl: "why had she been intervening?" The third opportunity is acknowledging the semiotic marker, talking about it and laughing about the comment as well as appreciating the particular perspective. Such conduct would clearly show that the gaming community can realize their relativity toward other communities, which might become central at any given moment. *The rupture leads them into the temporary deconstruction of the gaming myth and therefore into less participatory conduct of the gamers because they are more attuned to the little girl and her comment*. This would first show an active and adaptive switching between multiple communities enabled by a semiotic marker within the periphery of the gamer's experience. Second, it would show an active hierarchization of the different voices.

The gaming community would be able to momentarily bracket their flow of experience (myth) and therefore, their mutual attunement toward each other and toward the game in order to become temporarily attuned to the girl and her community (which is to be evaluated by the gamers). This would also potentially explain altered killing scores within the shooter game. The other two opportunities for how to deal with the semiotic marker at the border of the rupture involve repression either passively, by inhibiting the centrality of the semiotic marker, or by directing anger and resentment toward it, to make it eventually disappear. These two trajectories would lead consequently to similar killing scores as established by the gamers in the first half.

The crucial feature in this analysis method lies in the spheres of now being now attuned toward X and not yet being attuned but eventually attuned toward Y. The semiotic marker is one crucial condition as well as the individual responding to it (which includes non-responding). Hidden in this process is the above-mentioned *Gestalt explosion*. As we have stated in the aforementioned paragraphs, a *Gestalt explosion* can come with an emergence of a new voice, but there is also a lower type of *Gestalt explosion* visible in the consequences of the active switching between multiple communities and therefore with our own perceptual focus. More precisely, the drop in the gamers' scores can be regarded as the result of a perceptual (lower level) *Gestalt explosion*. If the killing scores were to be altered after the implementation of the semiotic marker, we would be able to infer an alteration of the perceptual focus of the gamers (temporarily) directed from the weapons/killings to the dress of the protagonist that is inherently interwoven with the little girl verbalizing the statement. *Theoretically, we think that a change of the ground is enabled by the girl's comment demanding an alteration of the Gestalt completion*, e.g., an answer to the comment not found in the myth of the gaming world. But let us look at the killing scores as scaffolding for our theoretical elaborations.

## "The Beautiful Dress"-Results

Before the first child's intervention, the gamers' score was dominant toward the enemy team 15:25. After the rupture the end scores resulted in 30:29. This seems to show a clear break in what the gamers experienced. By looking at the reaction of the gamers the impact becomes undeniable. The serious gaming mode ended in "laughter." The team prepared to silently attack, giving only comments, if necessary, and changed their behavior immediately. One of them started to jump around the researcher's character, while laughing. Another player simply wrote "Omg, you are killing me." And one of the players answered with, "Well thought, she is kinda hot in that dress." The joking and commenting were only slowly fading away and the game was lost. Instead of *salty behavior,*[8] the players even requested later the same day to become friends on the gaming platform, by writing "*Best Team*." After several such test runs only a minority of gamers, female and male, became salty toward that break and even fewer were able to ignore the child's intervention. In that pilot phase every score ended with a reduced killing phase in the play and a more communicative discussion in the game.

The altered killing scores as well as the gamers' reaction after the implementation of the semiotic marker surpassed our expectations. First, the gaming community was able to switch between different communities and their flow of experience enabled by the particular myths shows how the construction and deconstruction processes of the PSM flow into an altered state of attunement toward multiple communities and thereby into a shift of perceptual lenses as a sort of a lower *Gestalt explosion*.

Second, most surprisingly, the semiotic marker and its consequences got stuck in the minds of the gamers' community as they reached out toward each other later that day. In a healthy community, people slowly integrate important voices of a certain community into another subjectively important community to enrich the particular sign world as well as to get help in any case there are unmet needs or conflicts of the I-position that cannot be addressed in the original community. Something similar happened in the experiment. The *Gestalt explosion* is a common experience enabling the gamers to get closer to each other. All this happened by the rupture of the semiotic marker oriented toward another community.

None of these phenomena is new; they have been there before and are present now. There are multiple gaming communities that got to know each other while gaming by comments such as the little girl verbalized in the experiment, that became friends and go to several gaming conventions now. In the same breath, there are gaming couples that emerged through long conversations while gaming. We argue

[8] In the field of gaming" Salty" is used as a description of an individual's current emotional condition. In general, it means that an individuum seems irritated or angry. The roots of being "salty" can be presumed as originally meaning from the act of crying *salty tears*. Alternatively, "*salty*" can be related to being angry, irritated, or hostile, whereby it is in gaming language common to say that players are behaving "salty," which can quickly result in tensions between the players.

that in these conversations, the players are not only thematizing the gaming world but the multiple other communities that are also central for their lives and that help them to form a relationship, thus a minimal community. Gaming conduct denies the PSM by fixating the gaming I-position no matter which semiotic marker tries to rupture the gaming myth or flow of experience. Here, the deconstruction of the PSM and a re-arrangement is constrained and therefore different and enriching perceptual foci — that the person can also potentially bring to the community — become inhibited. This *Gestalt explosion* — because of the perceptual potentiality — draws on rich material of the people involved in gaming eventually getting to know the person behind the gaming screen in his/her *unitas multiplex*.

In conclusion, gaming is a young form of a myth. But it is not unlike football and its predominant myths. Gaming shows similar risks of distress, or ruptures, as any other socially constructed meadow/community. Ruptures can be found everywhere. The predominant mechanism of such tensions forces the self into fixation and stagnation. This comes close to neglect of an idea of identity that we called in relation to the PSM *unitas multiplex*. Gaming, like other social communities, must be analyzed within the broader perspective of our PSM. The meaning that the gamers prescribe to their screens should neither be ignored nor labeled simply dangerous. It only becomes disadvantageous for the current self's development — as football does — when it inhibits any other voice and thus any other — potential — community.

## From a Perspective to the Observer

*How* we see up to the *Guovssahas* influences our ability to move further in our experience and meaning making. The focus on it from the angle of the cultural psychology of semiotic dynamics — movement between experiencing, abstracting signs that become generalized and hyper-generalized — then returning to creating meaning in the particular here-and-now context, altering it profoundly — by opening the realm of possibilities to transform the "meadow with the self". It is not merely a shift of perspectives but the re-locating process of oneself in expanding borders that is crucial. Therefore, we need to move beyond the original understanding of dialogicality of development through words from point to point.[9] We need to grasp the multiplicity of points that are inevitably present in the negotiation of the polysemic multivoiced self that need not be a verbalizable process but can be a felt, pleromatic, and intuitive process available to us through conduct and intentionality.

[9] Multilogicality = dialogical meaning making process in a polysemic multivoiced self-e.g. *unitas* multiplex.

## Dynamics of Sign Gestalts: Explosion and Extinction

***Scene 1*** Luca started the last few years avoiding speaking with others —except for only when he really was forced to. In the last few days he decided to start to play games in the hope of finding a new passion. So today he decided again to dive into the field of practicing his skills in the gaming world. During the game he started to focus more and more on the setting and on his extended personality — virtual figure — when his sisters walked in and started randomly talking to each other about things they planned to do. Earlier, Luca had told one of his sisters in passing that he had had a hard day in school and would like to be alone by diving into his new game. His sisters still decided to enter his room and laugh with each other. At first he started to become quite angry by the interruption of his gameplay, but then he started to realize that even though they were in his room they did not intend to speak with him while located in his close surroundings. At this moment he started to feel secure instead of anger, knowing that they simply wanted him to know that they are there, if he felt ready to talk about what exhausted him during the day. He did not feel ready to open up to them but started to realize that during his playing he also avoided playing with other players even though it was an online multiple player game. He had a feeling of being left outside the community — family and gaming. But the moment his sisters entered the room, Luca started to be guided to an alternative routine. When he then started to listen to the sisters' discussion, he started to find cues of how he could approach topics. Luca shifted his headphones slightly to the side freeing one of the ears, while continuing playing. It just felt right. He used to talk with his sister, but some years ago he lost the drive to share his thoughts.

The moment he started talking while still focusing on the game something changed in him. It felt natural — a feeling he had somehow forgotten. For him a lot changed in that moment, whereby he was aware that they had only shared a few words.

The notion of *Gestalt explosion* is important. There are no words or categories to anticipate the catastrophic burst in the whole thing. As a consequence, the whole PSM system becomes reconstructed.

The notion of *Gestalt explosion* is deeply interlinked with the conditional-genetic analysis by Lewin (1927). Lewin provides us with a sophisticated example to explain the complexity of the human being moving through space and time within different communities. He explains that phenomenologically we cannot simply observe a person working and infer what s/he is exactly doing. Is s/he working voluntarily? Is s/he working as a sort of obligation? The phenotype of the work does not reveal the reason for the complex phenomenon of work. Therefore, we have to approach the person working within his social field (Lang, 1992, 1993, 1997) to unravel the conditional lawfulness that can catalyze the genesis of a particular work-pattern. Here, we might ask the person *Are you working as a sort of obligation*? The person might answer: *Well, what do you mean by that? Well, if you mean that nobody forced me to work, then you are right. But it's more than that: It's not that I could finish working from today onwards. I have to feed my family, take care of my kids. So, I am not fully free either.* Here, the phenomenon of working is only to be

understood within the tensive conditions of having a family<>not having a family, taking care of that family<>not taking care of that family, which explains that some conditions between the past and future can make up for the phenomenon of work, neither completely forced nor completely voluntary. Yet Lewin had no breakthrough in his field structures that were of an explosive nature.

To explore a *Gestalt explosion*, one needs to answer the simple question of *What happens if I continue to be attuned to community X and what are the consequences for myself and my other communities Y Z?* (Figs. 3 and 4).

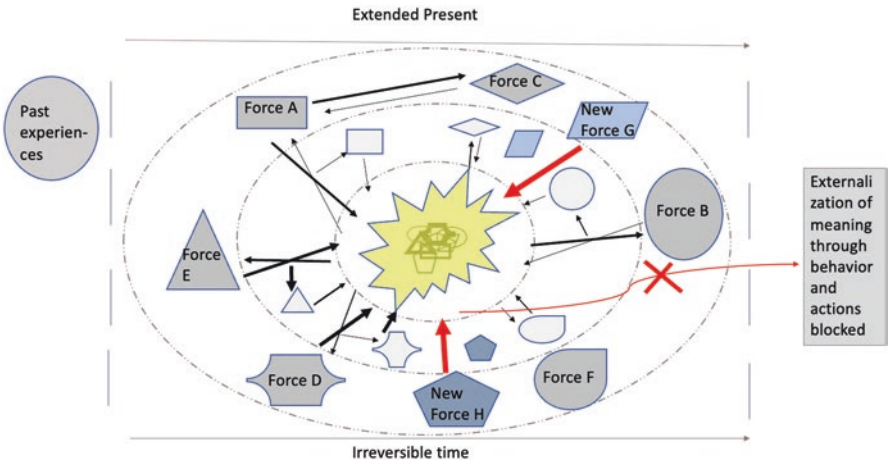


**Fig. 3** A model of the experienced *Gestalt explosion* leading to the neccessity of restructuring the polysemic multivoiced self. (According to Bisgaard et al. in press)

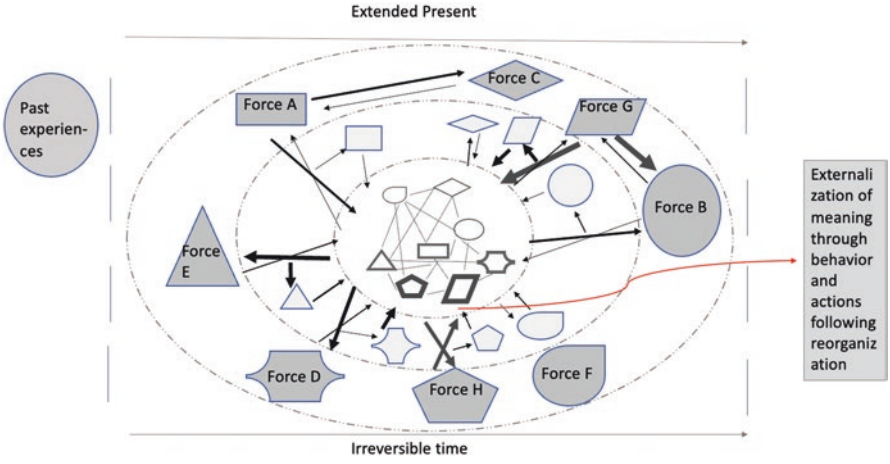


**Fig. 4** A model of the restructure of a polysemic multivoiced self after *Gestalt explosion*. (According to Bisgaard, et al. in press)

The PSM and the inner *Gestalt explosion* are based on the axiom that the multiple dialogues are central elements of our everyday and are not simply minimizable into a single voiced dialogue. Meanwhile, this underlines the need for a more (w)holistic approach that allows simplification while conserving the constant shifting and organic growth in the mind, for example by the *self-identification meadow* (Campill, 2021).

The flowers and trees in the meadow are able to coexist, with all their advantages and disadvantages. The fragments of the meadow are metaphors for the myths, cultural or environmental fragments, that become personalized (e.g., the negotiating internalization process from layer 3 to 1 in PSM). The voices or fragments start to connect with the individual's self-identity. The preliminary results of our pilot study of intervention into gaming gives us serious hope that the systematic preparedness of communities to commit atrocities in real life can be prevented by timely interventions — the insertion of voices from other, sub-dominant (at that moment) communities. This allows us to consider videogames in a new light — although these have been stigmatized as "the evil" to which innocent young people succumb, we see in them an opportunity for prevention of other societal evils that are merely represented in one facet of the videogames.

## General Conclusion

It is crucial to underline that the nature of *Gestalts explosion* is in itself a description of ruptures that have been experienced individually as triggering drastically one's own meaning-making and understanding between self-environments. Identical to the *Guovssahas,* the noisy beauty in the night sky, the *Gestalts explosion* is observable as tremendous change in the perceived, that can lead to new understandings and environmental adaptation, in the observation field self. The personal changes, such as the potential creativity or monotony, can be elaborated as the concluding result that has been influenced by the observed and experienced triggering information, which can shift between desired and unwanted toward the experiencing individual. Like the *Guovssahas*, it is not only one explosion or rupture that we are experiencing but it is an accumulation of explosions that are followed by other unique explosions in space and time, changing the perceivable space of the individual living underneath the scenery.

The *Gestalts explosion,* in the context of the polar lights, has been connected to a physical-organic phenomenon that stands directly in relation to the environmental and individual fluctuation over time. The terminology: the individual gains through this understanding of the *Gestalts explosion* in an organic setting the clear awareness that in the PSM changes cannot be understood as simple mono-phenomenological constructions but as a complex multifactorial context depending on the construct, where every moment equals a new possibility to change drastically or in nuances.

## Dialogues to Follow Up the Chapter

> Q. "Can stagnant experience be restructured as a resource for development? As the authors of this chapter have described, "void" or "polysemic noise" can stagnate the development of the self. But is it stagnation in the true sense of the word ? We are in irreversible time — so, if time moves on, we may discover dynamic movement in a situation that was "stagnant at the time.""

As Rommtveit already emphasized, by introducing the example of Mr. and Mrs. Smith (Rommetveit, 1992), our point of view is always in a certain diversion regarding the understanding of others. That awareness needs to be taken further, adding it into the dimension of irreversible time. We are not as we have been, neither in the case of societies nor in the context of individual human beings. It is central here that we are not living through time but in parallel to the construct time that is used to measure our shifting/development. We are growing through experiences, which are initializing constantly, and allow us to rearrange our relation and understanding toward the dialogization of the self and the environment. In other words, experiences are felt by the human and are running with a certain coherence with our understanding of time — remember sometimes when we, for example, enjoy what we do? Time and our experience of time is inconsistent. So stagnation is not needed to be seen in our context as an opposition force that denies movement, it is a phenomenon where the own self interferes by one action with the multiple other positions that have grown in its individual culture. Stagnation is in common use in existence when it comes to the metaphysical space of the human mind, whereby its use in the context needs to be emphasized as a momentum where the reachability of the current self toward its cultivated identification layers "culture/meadow" is restricted and persist in a reduced consciousness toward one's own (culture) desires.

Nevertheless, reduction of one's own (culture) freedom of action is not a toxin. The self of today is different, with changed desires and beliefs, the one we will represent tomorrow, and this also means that what has been experienced in today's context as counterproductive can become a central new belief by tomorrow. In other words, we cannot proclaim for a general audience what is good or bad, as it is strongly connected to a specific context that we cannot frame with our current capabilities. Still, we can anticipate the most promising state for a current self in its development/shifting through irreversible time, which lies in a state that is more open for its individual and for the environmental change it exists in. In conclusion, yes, stagnant experience can be restructured as a resource for development that needs to be used with caution.

> *The preliminary results of our pilot study of intervention into gaming gives us a serious hope that the systematic preparations of communities to commit atrocities in real life can be prevented by timely interventions — the insertion of voices from other, sub-dominant (at that moment) communities. (p. 30, paragraph 3, line 1)*
>
> Q. "This point is very intriguing. I think it is a valuable consideration for many people. Extended question: What voices or relationships with the community are essential to promote the re-creation of meaning?"

A difficult question, which would need its own chapter for elaboration. In short, we would need to say that there is nothing like a voice or relationship that may be seen as essential to promote the re-creation of meaning; meanwhile, they all are able to become such factors. Voices and relationships are constructed that are carefully cultivated by oneself, but also by those we are "sharing them with." We can assume with our current knowledge that there are several central but complex conditions that lead an individual to the confrontation with a voice or relationship that promotes re-creation of meaning. For example, the re-creation of meaning can be initialized by the courage to enter a community; at the same time it can also be initialized by changing the community or the position/role in it. In general, it may be a certain shift in between the multiple roles we inhabit that can promote a symbiosis of ourselves and thus also promote the quality of our meaning by recultivation/creation (Campill, in press).

## References

Bisgaard, C. H., Campill, M. A., von Fircks, E., & Valsiner, J. (in press). Layered attunement: Internal dialogues of intersubjectivity. In *Dialogic perspectives in times of change*. Oxford University Press.

Campill, M. A. (2021). Towards a wholistic model of identity: Why not a meadow? *Integrative Psychological and Behavioral Science, 55*(1), 112–127.

Campill M.A. (In Press). Cultivation in self and environment: When a voice echoes from one garden to another. *The semiotic field of the garden. Advances in Cultural Psychology.*

Campill, M. A., & von Fircks, E. (in preparation). Biocenosis of the self: The dynamic of relationships. In *The organic metaphors in theoretical models of social sciences*. Springer.

Hermans, H. J. M. (2001). The dialogical self: Toward a theory of personal and cultural positioning. *Culture & Psychology, 7*(3), 243–281. https://doi.org/10.1177/1354067X0173001

Lang, A. (1992). On the knowledge in things and places. In M. von Cranach, W. Doise, & G. Mugny (Eds.), *Social representations and the social basis of knowledge* (pp. 76–83). Hans Huber.

Lang, A. (1993). Non-Cartesian artefacts in dwelling activities: Step towards a semiotic ecology. *Schweizerische Zeitschrift Für Psychologie*, *52*(2), 138–147. Retrieved from http://www.lang-papers.org/pap2/1993-01noncartesartefact.htm

Lang, A. (1997). Thinking rich as well as simple: Boesch's cultural psychology in semiotic perspective. *Culture & Psychology, 3*(3), 383–394.

Lewin, K. (1927). Gesetz und Experiment in der Psychologie [law and experiment in psychology]. *Symposion, 375–421.*

Rommetveit, R. (1992). Outlines of a dialogically based social-cognitive approach to human cognition and communication. In A. H. Wold (Ed.), *The dialogical alternative* (pp. 19–44). Scandinavian University Press.

Rommetveit, R. (1998). Intersubjective attunement and linguistically mediated. In *Intersubjective communication and emotion in early ontogeny* (Vol. 3, p 354).

Valsiner, J. (2021). *Hyper-generalization by the human mind*. Psychosozial-Verlag.

# Part II
# Lebensbaum

*Yggdrasil*

*How meaning is made,*
*No-space frames the physical,*
*While staying untouched*
*Results in interconnectivity?*

# Everything Is Bound to Transform: On Knowledge's Flow


**Sarah Campill**

## Introduction

*Lifelong learning* has no unified or standardised definition; however, the common understanding of it encompasses the following: It is a form of self-initiated education that is focused on personal development. It's the learning that happens outside formal education settings, it is a voluntary action, and its purpose is to achieve personal fulfilment. This definition makes lifelong learning a deliberate action, a result of a conscious and calculated evaluation, where personal well-being is the overarching goal. To gain a better grasp of the terminology, let us break down the term into its two elements: *lifelong* and *learning*.

## *Lifelong*

*Lifelong* is a word that describes an interval of time. It is an adjective that describes something that exists throughout a person's whole life. As it stretches over the entirety of an individual's life, the time that has yet to be lived is therein included. Solely in retrospect, lifelong is a measurable period. In some cases, *lifelong* is used to describe the length of a life's journey until the time of its reference. More

„すべては変容するためにある。知の流れについて ": Everything is for transformation. About the flow of knowledge

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commonly the term is used to refer to actions ahead of us. Actions that potentially await a person in their future while taking past actions into account.

It must be pointed out that *lifelong* means continuously not constantly because some definitions add a specification that says that something remains in a particular state. For instance, we live continuously until we die but we do not live constantly with the same intensity. There will be phases that come along with intense lessons, and others go along with the opportunity to study or utilise knowledge. We aren't unchanged through time or space, but we exist without stopping (until we die). When in 2020, the first wave of the Covid-19 pandemic hit humanity and we experienced a worldwide state of freeze. Depending on the county and the national restrictions to battle the continuous spread of the virus (including its variants), this state of the freeze was more or less intense. What we experienced was still *living*, but it wasn't comparable to anything we had known. Not only shifted life's intensity, but the event caused a ripple effect within our individual and collective lifestyles.

## *Learning*

The concept of *learning* is vast, branching out into a great variety of aspects. Learning is often subdivided into formal, i.e. learning that happens inside educational institutions, and informal learning, which happens outside organisations that are dedicated to educating. Formal education systems are often based on extrinsic motivations, e.g. grades, diplomas, certifications, etc. and informal learning is mostly intrinsically motivated. Moreover, experts differentiate between, e.g. continuous, transformative, vicarious, cooperative, cognitive, blended, personalised, social and organisational learning to name a few.

On the note of motivation and learning, Ryan and Deci (1920, 2000) coined the motivational continuum of human beings with their self-determination theory (SDT), which reaches from intrinsic, over extrinsic, to amotivation. It's a macro theory, depicting a broad framework for the study of human motivation and personality. They introduced a meta-theory that defines intrinsic and varied extrinsic sources of motivation, "and a description of the respective roles of intrinsic and types of extrinsic motivation in cognitive and social development and individual differences" (Centre for Self-Determination Theory 2022). Motivation and learning are tightly linked concepts because motivation is the driving (or inhibiting) force behind education. A model which focused on the different way of knowledge acquisition would be the VARK model by Fleming (see Fleming & Mills, 1992; Fleming & Baume, 2006). It is a widely known learning model which describes four distinct learner types. At the foundation of this model lies the idea that a student learns the best when the information is catered to them using their preferred learning pathway: 1. reading and writing, 2. visual, 3. auditory, or 4. kinaesthetic or tactile. The concept behind this is that every person has a preferred way of concentrating, processing, internalising and remembering advanced academic information and or skills. If

the student is aware of their learning style or their teachers, they can improve their performance. Although the model is popular in the scientific world it isn't undisputed. According to the inventor of the model, it might be difficult to prove that the learning styles exist, and it is difficult to prove the contrary – it all depends on the definition of learning used (Fleming 2012).

Tightly linked to *learning* is the human process of recollection of information, our memory. On a cognitive level, we differentiate between short-term, working-memory and long-term memory, with long-term memory being subdivided into procedural (i.e. implicit/ non-declarative) and declarative (i.e. explicit) memory. Muscle memory is a form of procedural memory, acquired through the repetition of a specific motor task. Declarative memories can belong to one of two categories: semantic (general knowledge such as scientific facts or historic dates) or episodic (personal recollections).

## Learning Can Only be Lifelong

The central part of a new understanding of *lifelong learning* is to look at the element that makes it stand out from the other concepts of learning: its beginning – *life*. The question of what it means *to be alive*, the meaning of life, is probably as old as human consciousness.

To be alive includes but is not limited to physical, cognitive, social, cellular, biological and spiritual ageing processes. To be alive means to change, and this change is partial to be attributed to ageing processes. We age with our chronic diseases, our physical dispositions, our emotional traumas, our socio-economic status and our interpersonal bonds (e.g. friendships, romantic, physical relationships), within the current political climate, etc. We age within the context of our life's path. This path can include experiences of inter-generational trauma, memory loss due to physical trauma or neurodegenerative diseases, subliminal learning, formal education, or informal learning opportunities. Psychological phenomena, or transformations of the human psyche, should therefore be studied in midst of their (primary) manifestation because of the reality of time's irreversibility. Once emerged, past events affect the vision of the past and the possible trajectories of the future (Valsiner 2016). In a nutshell, there is no existence apart from the past, not even if we are deprived of our ability to recall the linear order in which events occurred during our life, e.g. due to cognitive impairment. We are products of our individual life stories.

When we speak about learning, we tend to refer to it as an *acquisition* of knowledge; here knowledge is collectible and accumulative. It favours environments built on competitive structures, fostering the deprivation of true learning opportunities for outside groups. Furthermore, learning then is often associated with exams or similar methods of quantification of improvement and accumulation of academic knowledge. People exclaim: "They *collected* this piece of information", "They *absorbed* the content of the class quickly.", "Their children are like *sponges*, they *picked it up* effortlessly!". The association of *obtaining something ne*w with

learning is strong. At the same time, due to the construction of society and the constant pressure to prove and compare ourselves to others. This further facilitates measuring and communicating someone's improvement or progress in academic disciplines. The premise in these instances is that intellectual progress is measurable because the volume and quality of knowledge increases.

## *The Conservation of Knowledge*

However, do we *add a new element*? Wouldn't this either indicate that the information was either taken away from somewhere and now it does not exist where it was taken from, or it was copied and, in that case, what is this copy made off? It makes little sense to assume that if we gain knowledge someone else needs to lose it, but the idea of knowledge as a mental copy of a piece of information seems sensible. Haven't most models embraced this idea and accepted it as a given, as the foundation of learning theories. Despite this, another idea might be plausible as well. The third option is the idea of the transformation of knowledge. Let's take a step back and have a peek into the law of conservation of Mass by Antoine Lavoisier (1790). The original statement published in the *Traité élementaire de Chimie*, which applies only to isolated systems, states:

> We may lay it down as an incontestable axiom, that, in all the operations of art and nature, nothing is created; an equal quantity of matter exists both before and after the experiment; the quality and quantity of the elements remain precisely the same; and nothing takes place beyond changes and modifications in the combination of these elements. (p. 130).

Running with the general idea of the law of matter and projecting it onto the field of learning puts the spotlight on the idea of *transformation* rather than on the *creation of knowledge*. If nothing is created, then newly gained information is not completely novel. Leaning into the hypothesis of the Greek philosopher Anaxagoras, who hypothesised that a portion of everything can be found in everything (Curd, 2019). Thus, while an individual learns, they transform or reassemble information that they already possessed. This makes it appear novel.

## *The Limitation of Experiencing*

Each human being has been *learning* well before the moment of their conception, the moment sperm fertilised an ovarian egg. The genetic material contained in each component (the pair of chromosomes) is information, is knowledge. Coded knowledge which is passed on to the next generation to ensure their survival. Therefore, wouldn't it be plausible to assume that all we do is rearrange bits of information throughout our lives and even over generations? The genetic information and the impressions that we received in the early stages of life, create the baseline for the

self and lead us in our experiences and meaning making. It is a *limitation* or a framework within which an individual's self operates. It is an isolated system of sorts, nevertheless, its innate plasticity allows experiences to leave impressions, enabling individuals to evolve personally, emotionally, intellectually and spiritually.

A human being cannot make experiences outside their consciousness, even empathy is limited to a subject's abilities to mirror emotions and understand their own and/or other beings' feelings. Every individual is part of their unique ever-changing ecosystem, which is bound to the nature of the environment and climate, in addition to being in dialogue with other systems in a literal and metaphorical sense. If the human's meaning-making and experience-making potential are bound to the framework of a relatively isolated system, then René Descartes's first principal Cogito ergo sum – I think therefore I am – would be in favour of the hypothesis. All we know is what and that we think; it's the sole truth that persists through hardships, success and individual transformations. An individual might question why they live but not that they live.

Lifelong learning doesn't begin with the transformation of personal knowledge throughout an individual's existence; it goes beyond the conscious and unconscious of a single person. Lifelong learning seems to be rooted in more of a reflex or an animalistic instinct, and a natural urge for internal growth or the longing for knowledge. It seems to be rooted in our essence, the very essence all lifeforms share, and it is passed on from generation to generation.

## *Transgenerational Transmission of Knowledge*

Considering Charles Darwin's (1859) theory of evolution by natural selection and Jean-Baptiste de Monet Lamarck's (1801) theory of evolution by inheritance of acquired characteristics,[1] the idea of *lifelong learning* gains a new layer of transgenerational meaning on a genetical level. Nowadays, the original concepts represented in Lamarckism and Darwinism have been altered and amended to keep up with scientific developments in evolutionary theory. More recently, several experts in epigenetics suspect that both theories aren't mutually exclusive but compatible (see Armstrong 2014). This hypothesis would explain how spontaneous genetic mutations in the sense of Darwin's theory and the exposure to certain environmental factors can lead to the alternation of the pattern of epigenetic modifications in the genomes of affected individuals, and their transmission from the parents to their offspring, can occur simultaneously (Armstrong 2014). Transgenerational transmission of environmentally triggered alternations within the genetic material is information that a being acquires through experiencing life.

[1] Lamarck's idea of the *inheritance of acquired characteristics* was more recently reinterpreted by Ernst Mayr, who combined Lamarckism and Geoffroy's concepts. Mayr coined the term *soft inheritance (= epigenetic inheritance)*, which contrasts ideas in modern genetics of *(hard) inheritance*. However, the notion of hard inheritance remains prevalent.

An example of inherited knowledge genetically passed over to the next generation is transgenerational, or intergenerational, trauma, such as the experience of natural disasters (e.g. tsunamis or earthquakes) or man-made disasters (e.g. wars including. Asylum seeking, or genocides). There is evidence suggesting that traumata are not only behaviourally and attachment-related transferred but also genetically (Pop-Jordanova 2021). Generationally passed over trauma is biologically speaking a curious case as it manifests mostly negatively within the offspring. It is not a *healthy* aversion or fear that is passed over, but an intense overwhelming unprocessed cocktail of feelings. *What could be the function of transmitting this information?* An experience that had an important impact on the quality of an individual's well-being, to the point that the information was embedded within their genetic make-up. According to Darwinism the survival and reproduction of individuals do not happen at random, but they favour those individuals with, e.g. the best survival, mating, or bonding strategies. Thus, transferring trauma seems to be counter-intuitive and seems to go against the fundamental idea of genetically passing over advantages to the bloodline. However, it does speak for the plasticity of genetically learned information in a Lamarckian sense. At this point, it remains unclear if traumata would get passed down to the next generations even if the traumata were resolved within the generations that they occurred in.

By including these elements into the picture of a lifelong learning model, we witness a change towards a dynamic learning model that is sensitive to external and internal shifts and the influence of time. Taking this approach to learning, then learning can only be lifelong.

Learning is not limited to an individual's life span, but it can be extended to a specie's lifetime. It includes learning that takes place cognitively (actively and passively), socially, emotionally and genetically. Moreover, learning is not experienced, rather we can experience because we intuitively learn. Learning cannot be separated from other human beings' experiences. To learn is inherent to being *alive*. Therefore, learning, memories, ideas and experiences are interchangeable concepts. They are abstractions, tinted by every subject's perspective based on prior experiences and their self's framework.

## Lifelong Learning and Identity

Our identities are submitted to constant change and development. Who we are, our fundamental beliefs and our moral compasses, aren't set in stone. They are malleable, and they depend on our environment, our state of mind and our social roles. We tap into different facets of our identity triggered by various context clues.

Marc Antoine Campill (2021) introduced the idea of identity as a meadow (see Fig. 1, p. 9) to explain and show how people navigate the multiverse which is their identity. The identification meadow represents an individual's unique and intricate identity complex and showcases the interconnection of different aspects of identity. Within the meadow, the current self manoeuvres its way around the vegetation and

**Fig. 1** A meadow. Illustrated by Sarah Campill (2021)

takes care of it. The current self takes over the role of a gardener or a guide within the meadow. The current self is the observer or experience making; it can feed the meadow input or deprive it of it. At the core of the field stands usually at least one tree, which represents ideals, morals and values that are deeply rooted within a person's identity. The fauna and flora within the meadow represent the individual's I-positions and the echo of voices.

*Voices* (Hermans et al. 1992; Hermans 2001) are networks enabling the connection of personal experiences (i.e. the internal reality of an individual) to the communication of thoughts (i.e. the physical reality of an individual). *I-positions* have to be understood in the sense of the dialogical self-theory by Hermans (2001); they are I-voices, which are clusters of personal information or meaning, which reveal believed-to-be-true aspects of the self, that were connected. By linking them the temporary central position of a current self within their *hyper-generalised sign field*[2] (Valsiner 2020) is created.

The layers of the meadow, which are not limited to the layers of the soil, are hierarchically layered. From the position of the current self the easily accessible and/ or visible parts, are parts that represent an individual's I-positions. How strong these I-positions are bound to the self is represented by how deep their roots dig into

[2] Definition: The *hyper-generalized sign field* is a central level in an individual mind, on which metaphysical awareness and evaluation of experiences are fostered. On this level, a person has overgeneralized signs, i.e. generated meaning in a highly compressed manner, used in the mediational hierarchy to the extent of speechlessness. If a meaning complex/ dynamic has become deeply embedded into the multi-layered co-existing experience and meaning construction of a person, then individually held understandings are temporarily felt but intangible, indescribable. The individual is unable to vocalize personal feelings, desires, and needs, but they guide their everyday functioning. (Valsiner 2001; Valsiner, 2020)

the ground or how high the trees grow into the sky. Time is an important element, as it shows which plants survive and are resistant to the changes and tests of time.

The identity is technically a collection of identities, a collage of micro-cosmoses, constituted of fragments of different ideas that are rarely perceived at the same time. They create a cohesive picture when experienced from a distance (time and space). We are a multitude of persons, as we go through the seasons of life, e.g. see Erikson's stages of psychosocial development (Erikson 1993). We all are versions of who we were in the past, versions of whom we will become; within our respective identification meadows, we find traces of all these versions of us including the current self.

## *Examples of the Interconnectivity of Learning and Nurturing the Self*

The first example is the reality of a multitude of realities trans individuals live throughout their lives. Firstly, their gender identity stands in conflict with the broadly accepted understanding of gender, which is a binary (cis-male and cis-female) construct. By merely living in alignment and true to themselves, by gently (or boldly) expressing their gender identity, they question the gender-binary and heteronormative expectations of what a life story is "supposed" to look like.

Their life stories reflect the richness, plasticity and diversity of life and humankind. Depending on the cultural circumstances and statutory regulations, trans individuals might be able to enter new areas of their existence or self-expression. In some cases, their coming to themselves is one of the most extreme transformations of identity over time. The essence, the truth didn't change, as it has always been an unnegotiable element of who they are. What changed is the access, the means of expression and the access to this layer of their self. By nurturing it connected I-positions and voices will be able to sprout and bloom within their identification meadow.

Another example is the case example of a woman I met working in an Irish nursing home. From the beginning, it was clear that she was a force to be reckoned with. Despite her fragile physique, she was a petite and frail woman, she exuded a unique strength. It was the way she carried herself, the look in her eyes, the way she smoked her cigarettes. This gave it away; she was a fighter, and she was not going to ask for permission to exist. She was a fierce, unapologetically herself. Someone who sees through everybody's facades, someone who has seen a lot of life's darker sides. Soon she would join my art classes; her objective was to work on her fine motor skills and *to try something she had never done before*. It was the first time she ever painted; it was there, and then she held a paintbrush for the first time in her life. She wanted to do something for her own sake, to keep fighting the aggressive sicknesses that spread in her body. Her motivation was a force of nature, and even though she was in constant pain she was dedicated to the classes. She allowed herself to enjoy

the process of learning and discovering this skill and talent she didn't know she had. She took full advantage of the safe space, the creative outlet, and explored.

When she arrived at the nursing home, she didn't care too much about her life. It hadn't treated her very kindly, and the illnesses were feeding off her. However, she confided in me that this sentiment changed slowly. As she nourished unknown aspects of herself, her well-being rose. She dedicated time and effort to discovering herself outside the roles that she was assigned. As she never had a real chance to nurture and develop her interests or passions, the decision to join the art classes marked an important change and turn of events. It wasn't the art class; it was her inner change of perspective and her claiming her happiness that changed it all for her. Her being able to nurture herself, through artistic self-expression and by learning a new skill while keeping her life's story in mind, gave her in later life access to a layer of her identity that had been left in the dark in the past. Her circumstances didn't allow this development, out of necessity her past selves focused on other I-positions and roles.

The soul-searching process is intense and as the internal investigation for *truth* takes place, M. A. Campill's identity meadow opens a space that makes sense of multidimensional and concurrent identity lifelines and I-positions, which form together with the fabric of our identity. Nurtured by knowledge and learning our identities can unfold and change in surprising ways. Every inner transformation happens faster if the knowledge that feeds flows in a direction that resonates with underlying aspects of an individual. Knowledge is comparable to the current of a river, and it chooses the path with the least resistance.

## The Flow of Lifelong Learning

An existing holistic lifelong learning model is the Canadian *First Nations Holistic Lifelong Learning Model* (Canadian Council on Learning, 2007), which links lifelong learning to community well-being centred around indigenous intellectual traditions. The authors, R. Bouvier, M. Battiste and J. Laughlin (Bouvier et al. 2016), chose an organic allegory as well, the image of a growing tree to represent the interconnected and multi-layered nature of lifelong learning of first nations, Inuit and Métis people. While the model incorporates a vast spectrum of interacting factors, it doesn't take conflicting or toxic elements and the space for independent growth of one area into account.

The influence of an individual on the health of the "root system and the 'forest' of learners", or an individual's need for well-being (health, spiritual, economic, physical, or social) to nurture lifelong learning is described in detail (Bouvier et al. 2016). One of the strengths of the model is that it is a circuit, it considers the share other people (ancestors, family, community), as well as the individual, have within learning processes. The model was specifically created for one particular and unique community it is difficult to generalise or project the model onto other target groups. The nurturing elements for the learning progress of an individual focus solely on

outside guides such as mentors, elders, parents, or teachers. Leaving the self and the option that we can nurture ourselves out of the equation. The way areas of collective well-being (tree branches and leaves) are all part of the same tree, which stem is the individual's learning progress, and the roots are the domains/ sources of knowledge, indicating an innate connection to one collective. It seems difficult to connect this view with the sense of belonging to other groups and cultures, which can stand in conflict with one another.

This makes the model stands in contrast with a common stream of thinking in the French-speaking roams, in these more individualistically driven cultures, the life-long journey of an individual is the self-driven formation of their intellect through studying and cultivating the self (e.g. Pineau and Michèle 1983). In short, it is apparent that this model was created for a specific minority group. A group of people whose unique history, culture and living situation create a specific setting for learning to take place. It's missing influence on and off identity beyond its role as a source and domain of knowledge mirrors this background. In these settings, the story of individual autobiography and intellectual auto-formation are less prominent, because the collective mind guides and narrates these stories more.

## *The Cycle of Water: A Metaphor for Learning*

*Lifelong learning*, which is the continuous transformation of information within the borders of our experience-making system, follows a water-like circular pathway. Other concepts use a similar vocabulary, meaning the state of flow in motivational psychology. A person, who is in a state of flow, is in a state of energised focus during which they learn or improve skills easily while being detached from every notion of time. Being in a *state of flow* or *being in the zone* are psychological concepts, which go back to Csikszentmihalyi (1990). It's a key element to understand the organic pathway of natural curiosity, which leads to obtaining expertise in a field. Thus, the idea of a healthy and natural passion for learning is a shared aspect; however, the term *flow* will not be reduced to the state of flow based on Csikszentmihalyi.

The creation of a dynamic, transformative understanding of lifelong learning starts with the image of water. Water is a perfect metaphor for *learning* because of its attributions and chemical properties. Its variability, flexibility, its capability of dissolving many kinds of molecules, its attribution of life-giving, and because of the hydraulic circle, all these elements enable us to incorporate all the common and more novel factors of lifelong learning into one model. In the same way that water moves *learning* flows, solidifies, adapts to the conditions of the terrain (i.e. to the context) and reacts to external energies influencing it.

Throughout a lifetime, various information presents itself to a subject. Some of which will be retained long term, some only short term. How we access them, voluntarily or involuntarily, is dependent on many different factors. For instance, within the physical setting, e.g. a smell, a sight, or a sound might trigger a memory. Or

within the social constellation (including hierarchies, social roles, or stereotypes) of a situation might activate personal knowledge.

Sometimes information is stored deep in the subconscious, comparable to groundwater flowing beneath the earth's surface, or it's stored in a glacier, captured and frozen in time. Sometimes memories are flowing readily available comparable to rivers, springs, lakes, or other surface flows. In these cases, it is part of a collection of related and/or complementing ideas.

Long-term memories are either procedural, episodic, or semantic, each of them have factual, emotional, social, spiritual, physical and ideological aspects to them, and depending on the weight of a factor, it is facilitating or hampering the individual's active recollection of the information. To put it into perspective, these aspects attached to a piece of information are comparable to molecules dissolved in a liquid, with the liquid in question being a universal solvent i.e. water. On their way through the ecosystem that compromises an individual's being, these added substances are transported and encounter constructs that they nourish. There are different ways to access or transform knowledge, and the cycle of knowledge is involved in all of them.

## *The States of Knowledge and How Learning Shapes Knowledge*

The more energy water absorbs the faster the $H_2O$ molecules vibrate, causing them to shift from a solid state into a liquid or a gaseous state. In terms of the fluid lifelong learning model, this means, with an increase of energy, i.e. attention, effort, emotion, or focus, that is put on the knowledge it becomes easier to transfer or rearrange knowledge.

Enormous clusters of knowledge, *knowledge clouds*, present the highest potential to form new understanding, and new meaning, as they are the most dynamic. They are situated on a metalevel; thus, their manipulation of understanding or meaning is a relatively conscious process. The formation of knowledge clouds happens through the *condensation* and *transportation* processes over time. Once some of the fragments are reassembled, they cool off and fall into place. It's the *precipitation of knowledge*. In the original sense, precipitation is the falling to the earth's surface of condensed water vapour, mostly in the shape of rain, but also as snow, sleet, hail, or fog drip. Depending on the person's inner climate at the time and the nature of the novel piece of information it will be perceived by the self in a calming, nurturing, or hurtful/ aggressive way. Paddling back to the note of the internal climate of an individual. The hydraulic cycle is an exchange of (thermic) energy which influences the climate. For example, condensation gives thermic energy to its surroundings and evaporation extracts thermic energy from its surroundings. Similarly, the knowledge circuit affects the inner climate of a person. A further elaboration of this idea follows (see p. 17ff, *Watering the Identification-Meadow*).

*Transpiration* describes the release of water vapour from the soil and living organisms into the air. The transpiration of learning aims to maintain stability while

**Fig. 2** A Hydraulic Cycle. Illustrated by Sarah Campill (2022)

adjusting to conditions that are optimal for surviving. By transferring some information, the inner climate, and the state of homeostasis within an area of the self, try to be established. Ideally, the transpiration is followed by the precipitation of knowledge that reinforces the old belief system (plants = I-positions or echo of voices). To create a state of homeostasis between personal beliefs, meaning-compounds, the current self, the inner-personal climate and the general cultural climate, certain beliefs need to be altered (Fig. 2).

A similar mechanism is the process of *knowledge evaporation*. By evaporation, we generally understand the transformation of water from its liquid to its gas phase. The movement of the element moves from the ground or a body of water into the overlying atmosphere, which can cause clouds to appear. Compared to the transpiration process the evaporation process' by-product is the creation of dynamic equilibrium around large bodies of water – the inner climate around large (deep) bodies of knowledge stays relatively constant. If we know a lot about a certain topic and the information is cohesive and healthy, they form deep and large pools that are in movement. It is healthy to re-evaluate and adapt long-held belief systems.

Under certain conditions *deposition* or *desublimation of knowledge* happens, this is the direct transformation of vapour into a solid, i.e. ice. When information or memories are suddenly "locked" away, thus frozen or blocked due to a sudden and

traumatic event, we can refer to it as the desublimation of memories. Usually, only a specific part of the learning abilities is immobilised.

*Sublimation of knowledge* is the exact opposite of deposition, because one mobilises and one immobilises learning capacities. It is when due to a sudden change of climate once locked away information is liberated and right way accessible to the self. In nature, sublimation is the immediate transformation from ice or snow to water vapour. Imaging emotional trauma as an environment with temperatures well below the freezing point, the adverse living conditions impose themselves, cooling everything down. This is the situation, ideally, the individual's survival instincts kick in, and to protect our self we freeze a portion of the memory right at that moment, trapping a variety of memories with it. It is a temporary coping solution, and its goal is to assure that the individual survives the dangerous situation. Afterwards, when the person is safe again, they can try to work through the paralysing pain. Until that moment, some parts of the learning capacities are and stay frozen.

Another example of the self, which is forced into a state of stagnation as a result of a defence mechanism, is when the self sacrifices a shallow aspect of a belief system. A small portion of a meaning-complex can be given up, or temporarily neglected, to preserve the stability of a greater meaning. To sacrifice a superficial layer to protect deeper-rooted knowledge-constructs. At a first glance, the body of knowledge looks all frozen, because the self gave up this most visible layer of a belief system, nevertheless the majority is still fluid, still flowing beneath the frozen layer. Due to the very nature of the substance, the frozen part expands and separates slightly from the rest, creating an insulating layer and detaching the core understanding from outside influences. If the source of frigidity can be overcome, the barrier melts, and everything that was trapped beneath the layer is accessible again to the current self. An example therefore could be dissociation disorders or dissociation strategies.

*Percolation* and *infiltration* are the processes called that take place when water flows horizontally through the soil and rocks under the influence of gravity. When knowledge sinks and reaches sub- or unconscious layers of a human's psyche it gets tinted by the information that is stored there. Comparable to the infiltration process, small particles dissolve in the currents and are washed away with them. Carrying it with them through the knowledge circle and nourishing, or poisoning, other parts of the self with information that was stored deep beneath the self's surface, the layer accessible to the current self.

Learning is or can be innate, dynamic, flexible, complex and (mega) cooperative. The mega cooperative aspect of learning is nicely portrayed through the cycle metaphor. Even though humans aren't able to retain every piece of information that presents itself to them, collectively we can become aware of patterns and bits of information around us. Individual learning is comparable to the hydrologic circuit of a region, and the global circuit can be compared to the learning processes that happen in-between people.

## Watering the Identification Meadow

The advantage of the merged metaphors of the identification meadow and the life-long circular flow of learning is that they complement one another. They intuitively complete another as the hydraulic cycle influences the climate and nature directly. The flow of water, i e. the flow of information (e.g. autobiographic memories, shared or personal beliefs or of a different kind), keeps the identification meadow alive (see Fig. 3). The way information moves through our self, says a lot about how easily we retain it, incorporate it into elementary beliefs or constructs of the self, and where we stand in the pursuit of well-being.

On a global scale, every individual represents a fraction of the surface that is the landscape of humanity. Taking into consideration socio-cultural differences and individual particularities represented on the meadow as different kinds of plants, algae and mushrooms, the soil, the bedrock or the layout of the meadow itself. While the capacity of knowledge of an individual is set to be limited, there is a collective flow of knowledge. The knowledge that is passed over to the next generations by nature (i.e. DNA) or nurture (e.g. socialisation or education), or knowledge that is shared by an organised collective of people (e.g. politics, laws). This kind of shared knowledge changes according to a pattern, these patterns are comparable to the weather patterns of a region and the climate of a region. The shared or global knowledge influences the climate on an individual level.

For example, a person who is born into a dictatorship is born into a very specific socio-political climate. A dictatorship represents an extreme sort of climate that

**Fig. 3** An Irish Landscape by Marion Morrisey (2021)

suppresses almost all individual development, as the development, expression, or exploration of the self, underlies rigorous rules. It is an adverse climate that doesn't foster individual growth. Nevertheless, it is under the most adverse living conditions that the most unique and creative species come to life. The more unfavourable the topography of a meadow and/or climate of an organised group of people is the more creative individuals need to become to tune into their self. After all, cacti bloom in the desert, and there are species of plants that lay dormant in the desert for years, waiting for favourable conditions to bloom quickly and spread new seeds.

All in all, the five main components of a climate system are the biosphere, the land's surface, the hydrosphere, the cryosphere and the atmosphere. Translated into the context of lifelong learning and identity, the socio-cultural profile of a community is made up of the individual expressions of identity facets that are shared by a majority. For this shared knowledge, the knowledge that people parallelly incorporated into their identity, to be transmitted a large pool of individuals need to dedicate a portion of their knowledge capacity to it.

As was discussed beforehand, knowledge has hydraulic features. In short, it changes, but its overall extent is constant within the closed system that is the human experience-making and meaning-making process. The identification meadow gets nurtured and kept alive through the circulation and transformation of knowledge. In case of an overflow or lack of knowledge, the identity-meadow will react and change accordingly but always within its highly individual capacities. The transformation of knowledge, i.e. lifelong learning, directly and indirectly, affects which I-positions or voices can sprout, bloom, thrive, and which ones will die or remain dormant.

Subconsciously stored or used knowledge represented as water that is filtered (infiltration processes) through the various layers of soils and that is collected (groundwater reservoirs) or flowing (underground runoff) slowly underground, e.g. towards big bodies of water such as the ocean. An ocean represents a large coherent body of moving knowledge. Knowledge that is harmonious and thus enhances the overall potential of the individual's knowledge pool. Such a body of knowledge would for example be expert knowledge in a field, or it can be the knowledge of a family constellation or rules. For example, information about a family constellation could be similar to the I-positions: "*I am the biological daughter of X and Y. I have a biological brother and two stepsisters. I am part of a patchwork family.*" These bodies of knowledge can be subject to rupture, possibly by the revelation of a piece of information that stands in conflict with my values, my beliefs, i.e. my identity structure. The revelation that someone was adopted could be the reason for a rupture that concerns the knowledge cycle and the identification meadow abruptly.

A rupture can either provoke a tsunami-like movement of knowledge, which floods and drowns large parts of the identification meadow, or it could freeze the self and linked knowledge. Depending on the amount of frozen knowledge or memories, certain I-positions are given an advantage, but once these elements melt and start to flow again the *fauna* and *flora* of our meadow change by the shift. What once presented as a lifeless desert might turn into wetlands, filled with never-before-seen flowers and weeds, that sprout and blossom in record time.

## *Conclusion*

Lifelong learning is not something that sets humans aside, but what approaches us to the animal kingdom. By including these into the picture our model of lifelong learning shifts towards a dynamic model that is affected by outside forces. Learning can only be lifelong and always happens within the context of the field of an individual's identification meadow.

When someone learns, their individual knowledge potential flows and transforms. It changes with every experience, and due to the irreversibility of time, these experiences (based on events) influence the perception of the past and future. Knowledge allows us to stay flexible and enables us to continuously adapt to an ever-changing world. Movements or shifts within personally meaningful clusters of impressions and memories resemble the movements of water molecules within the hydraulic cycle. Knowledge behaves like water within the personal boundaries of mind and psyche, and its state depends on the environment and the climate, while simultaneously holding the power to change the said context by being persistent and following the same direction consistently. The latter is comparable to a rock that is cut by a river over time. Knowledge or experiences feed or give life to I-positions, echoes of voices from the past and present, moral values, personal and cultural beliefs, and world views.

**Acknowledgement** Special thanks to Pat, who inspired me to write this chapter. To me, you are the embodiment of the beauty and power of lifelong learning. By your actions, you show us all that it truly is never too late to learn something new and grow into yourself. – Thank you, Pat. I am grateful to you.

Pat gave gifted me a message, which I want to share with all of you: *Go, leave behind what holds you down. Live your life to the fullest because I couldn't. Leave, you will be missed, but nevertheless, leave*.

# Dialogue: Everything Is Up for Transformation. About the Flow of Knowledge

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This part can be read in addition to the chapter "Everything Is Bound to Transform: On Knowledge's Flow" by Sarah Campill (2023). The purpose of the dialogue portion is to enter a discussion with another and to continue shaping our understanding of lifelong learning.

The title stems from the back-and-forth translation of the preceding title by S. Campill into Japanese and back into English. We deemed this fitting because dialogues are themselves translations of sorts. The participants try to translate their thoughts into a message addressed at their vis-à-vis, aiming to connect, to effectively communicate. In the process of these attempts, all parties may transform their understanding turning their perception towards their counterparts'.

**(I.) Morioka M. About the Paragraph *Learning Can Only Be Lifelong – The Conservation of Knowledge*:**

*The chapter "Everything Is Bound to Transform: On Knowledge's Flow" presents a fundamentally new way of thinking about the way we perceive and experience the world. Learning is also a way of knowing that is very close to the work of knowledge called recall as if we recall in this life what we knew in a previous life before we were born, a truth that is pre-existing in the depths of our own mind. Learning through recall is, as the author points out, "beyond the conscious and unconscious of a single person" (S. Campill, 2023 p. X).*

*Even though the world view, of knowledge acquisition and addition, is an empty one, world citizens cannot easily escape from the idea of hoarding wealth and new information as happiness. It is a painful place to be in. For people to break free from the idea of the desire to acquire something new one after another, it will be important to look at the preservation of knowledge and to shed light on the true recall of the past. Dig up your own experiences. You will discover treasures among them.*

*Speaking of recall and learning, it would be impossible not to mention Plato's thoughts on education within the dialogue volume, Meno. Meno asks Socrates whether virtue is teachable. Socrates answers that he does not know whether virtue is teachable and goes on to ask, in turn, how to define virtue. Meno presents three definitions of virtue, each of which is refuted by Socrates. Meno grows weary of their conversation and presents Meno's paradox – that if one knows what one is seeking, the inquiry is unnecessary, but if one does not know what one is looking for, the inquiry is impossible. Therefore, Meno argues that inquiry is either unnecessary or impossible. He does this to cease his discussion of virtue with Socrates. However, Socrates perceives Meno's intention and responds by presenting the "theory of recollection" – that learning essentially consists of remembering things. This also means that we hold a certain unique position regarding human knowledge in general. In other words, we already know everything, we just have to be careful how we recall it. The truth, which is the object of all learning and knowledge-seeking, is not something that exists outside one's soul, which is taught in a way that is imposed unilaterally by someone else, but it is something that is present from the beginning inside one's own mind. This implies that remembrance or learning and inquiry are inseparable. Therefore, by responding with the theory of recall, Socrates also intends to correct the error of Meno's easy view of learning and knowledge:*

*"Education is the transmission of knowledge by the one who teaches to the one who learns".*

*For knowledge inquiry to take place, the knowledge being explored must be knowledge that one did not know before, but in order for one to explore something, one must somehow know in advance what the object of that exploration is. It must be known beforehand in some way, so the paradoxical nature of knowledge inquiry is called into question. There is a correspondence between this theory of recall and your investigation.*

## Reply to Morioka (I.) by Campill:

Firstly, I want to highlight the beauty of the simple yet powerful idea expressed by Morioka, the idea that sometimes for people to free themselves of the struggles linked to the continuous rat race of modern societies, a look inwards is sufficient. If an individual focuses on "*the preservation of knowledge and to shed light on the true recall of the past*" they might find richness, contentment, or peace in avoided areas of their lives, in avoided areas of their selves, because they start to uncover overseen abilities and knowledge. I agree on two different levels with Morioka on this, on one hand, because every individual is enough and worthy as they are, and ideally through having a compassionate look at themselves – within the context of their life stories – they recognise their worth and their strengths. On the other hand, the whole idea of lifelong learning as the hydraulic cycle is supposed to emphasise that every human being enters the stage, that we call life, with a skillset including individual potential and limitations. Comparison is not solely a thief of joy, but more prominently it takes away the spotlight from the abilities and experiences a person has. It strips the individual of the chance to venture out and explore their abilities without expectations. The personal journey of exploring the self can be extremely rewarding, especially if the individual moves towards understanding that as they are they are complete. By transforming and changing what we know, we can lean further into cultivating our authentic selves and treasure what we were given as well as respect and recognise others for who they are.

Secondly, I want to reply to the mention of the theory of recollection and Meno's paradox. Both combined reflect indeed very well the ideas I tried to convey at the beginning of my chapter. These ideas are: 1. an individual can only understand, what lies within the individual's realms of knowledge, 2. an individual can only understand concepts that they can create a connection to through bits of knowledge that they already know or what they experienced. Access to these bits of knowledge can be hindered or blocked. For instance, some people who are living with dementia report that they know they forgot something, but they can no longer access what this information was. They know and they don't know simultaneously. Nevertheless, it's different from the feeling of never having known something. Even if this example is flawed, it does illustrate that exact sentiment contained within Meno's paradox – the search for the known-unknown. Another example might be the personal

breakthrough experience during or through therapy. The moment when a patient discovers a truth about their life. The moment when an explanation or a reiteration of events starts finally to make sense. This is knowledge the patient held, but its order was different. It was tangled and tinted by echoes and I-positions in disconnection with the self. For them to be able to rearrange bits of information and previously held beliefs, intense inner work is required. Through questioning various aspects of a past experience and their attributed meaning, an individual can come to a different conclusion than before. A conclusion that may feel more in tune with their true self, and their experience of the course of key events.

**(II.) Morioka About the Paragraph *The Flow of Lifelong Learning: The States of Knowledge and How Learning Shapes Knowledge*:**

*While, on the one hand, the biological, socio-cultural, and ecological position of the person is presented in your study, the metaphor of the grassland-water cycle of how knowledge shapes beliefs expand the comprehensibility possibilities related to the formation and alienation of the human mind. On the other hand, Vygotsky and Freud's examination of the fundamental feature, that the formation of the human mind consists of a double-line power dynamic relationship between biological and cultural-historical affiliations, is pioneering (Morioka, 2020).*

*Vygotsky (1931) notes that human beings have two developmental lines, natural/biological and cultural/historical. The basic axis of Vygotsky's psychology is clear. The two developmental sequences of behaviour transition from direct natural forms to tools and language-mediated mental functions. Vygotsky and Luria (1930) state that the fundamental feature of higher mental functions in terms of phylogeny is that they are formed not as a product of biological evolution, but as a product of the historical development of behaviour and have a special social history. Therelationships of higher mental functions are built on the use of intervening stimuli (symbols) and therefore take on an intermediary character.*

*From these neurological studies, Freud built his own theory and method of exploring the psyche called psychoanalysis. It can be understood that the major problem of how to connect the duality of human biological lines and historical lines was solved in the form of psychoanalysis. Binswanger (1947) explained Freud's interpretation of biological facts in humanrelationships and attempted to present life histories and personal allegorical stories, especially in the theory of psychic conflict. Therefore, both the biological descriptions of disease and storytelling are compatible.*

*How to link epistemology in biology to the life history of individuals: The target article by S. Campill introduces evolutionary psychology to the question of how individuals with mind-body unity are structured, thereby forming a metatheory of psychology. The basis is a gene-centred approach.*

## Reply to Morioka (II.) by Campill:

Both lines the biological/natural and the cultural/historical, nature versus nurture, are the subject of numerous publications over the past decades. The history of the evolution (phylogeny) of higher mental functions within humankind is studied by various scientific disciplines, where everyone strives to come closer to uncovering the whole answer to the questions of *how* and *why* humankind developed the way it did. The idea that either biology or psychology is dominant and influences the development of humankind more than the other is interesting.

However, these elements are far too intertwined and co-depended then that one could separate or put them into competition with another. Transformations, such as evolution, are highly context-specific.

What came first, the egg or the chicken? Our understanding of the circumstances affects our answer to the chicken or egg causality dilemma. An evolutionary biologist might answer the problem according to a broader definition of the concepts behind the terms chicken and egg. Researchers traced the appearance of the first amniotic eggs laid by animals belonging to the family of birds over 300 million years back. However, this is only one possible answer to the riddle. A similar question might be, what came first the influence of nature or nurture on human evolution? Scientists tried to build bridges and connect the body to the mind, like Sigmund Freud with his psychoanalysis, and later bio-psycho-social approaches.

It is simple and complex at the same time, the extent to which the individual's life and the development of humankind are interconnected. The individuals' life stories, their learning process and their identities, it all plays into the transformation. Once the concepts of learning and life scripts are stripped off the judgment of their quality and correctness; once the changes are seen for what they are: transformations of information, new pathways open up in front of us.

It makes sense that information is retained faster if it is connected to emotions and that procedural knowledge or muscle memory remain the longest in people living with, e.g. Alzheimer's disease . The intensity and the sustainability with which changes occur within us are linked to the emotional, the experience aspect that influences transformation within the body or the mind. The intensity of an emotion linked to an experience acts as a catalyst. All of these: identity, life scripts, life stories, culture, biology, emotions and learning work together. They don't always work together in a functional, healthy way but in general, their aim is *survival*.

Finally, important to me is the notion of normality of restriction and limitations. Life is neither wrong nor right, it is not good nor bad – life is transformation with the aim of survival. Therefore, every living being deserves to be approached with respect and the understanding that we all are ever learning. Everyone is capable of learning, and it has nothing to do with their cognitive abilities, disabilities, their diseases or conditions. The inability of other beings to measure the changes of knowledge in someone else only reflects their inability to measure and recognise what is present. Every person is first and foremost a person, capable of learning and worthy of respect. Their stories are theirs to tell, their identity is theirs to express.

Last but not least, I want to thank Masayoshi Morioka once again for the well-thought-out and articulated feedback and his comments. I hope his input was as stimulating and enriching to you as it has been to me. I am looking to more exchanges like this in the future.

## References


Armstrong, L. (2014). *Epigenetics* (1st ed.). *Garland Science*. https://doi.org/10.1201/9780429258862

Binswanger, L. (1947). *Ausgewählte Vorträge und Aufsätze*. Francke Verlag Bern: Band I.

Bouvier, R., Battiste, M., & Laughlin, J. (2016). Centering indigenous intellectual traditions on holistic lifelong learning. In F. Deer & T. Falkenberg (Eds.), *Indigenous perspectives on education for Well-being in Canada* (pp. 21–40). ESWB Press. (PDF) Designing an indigenous wellness university course: A reflective case narrative.

Campill, M. A. (2021). Towards a Wholistic model of identity: Why not a meadow? *Integrative Psychological & Behavioral Science, 55*(1), 112–127. https://doi.org/10.1007/s12124-020-09588-3

Campill, Sarah (2021). A Meadow [Digital Image]. Private Collection, Luxembourg.

Campill, Sarah (2022). A Hydraulic Cycle [Digital Image]. Private Collection, Luxembourg.

Campill, S. (2023). Everything is bound to transform: On knowledge's flow. In M.A., Campill (Eds.). *Re-inventing organic metaphors for the social sciences* (pp.X-X). Springer.

Canadian Council on Learning. (2007). *Redefining how success is measured in First Nations*. Inuit and Metis learning.

Centre for Self-Determination Theory. (2022). The Theory: Overview. https://selfdetermination-theory.org/the-theory/

Csikszentmihalyi, M. (1990). *FLOW: The psychology of optimal experience*. *Harper Collins*.

Curd, P. (2019). *Anaxagoras*. Online: The Stanford Encyclopaedia of Philosophy. https://plato.stanford.edu/archives/win2019/entries/anaxagoras/

Darwin, C. (1859). *On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life* (1st ed.). John Murray.

Erikson, E. H. (1993). *Childhood and society*. W. W. Norton & Company.

Fleming, N. D. (2012). The case against learning styles: "There is no evidence...". http://vark-learn.com/introduction-to-vark/articles.

Fleming, N., & Baume, D. (2006). Learning styles again: VARKing up the right tree! *Educational Developments, 7*(4), 4.

Fleming, N. D., & Mills, C. (1992). Not another inventory, rather a catalyst for reflection. *To Improve the Academy, 11*(1), 137–155.

Hermans, H. J. M. (2001). The dialogical self: Toward a theory of personal and cultural positioning. *Culture & Psychology, 7*(3), 243–281. https://doi.org/10.1177/1354067X0173001

Hermans, H. J., Kempen, H. J., & Van Loon, R. J. (1992). The dialogical self: Beyond individualism and rationalism. *American Psychologist, 47*(1), 23–33. https://doi.org/10.1037/0003-066X.47.1.23

Lamarck, J. B. D. M. (1801). *Système des animaux sans vertèbres ou tableau général des classes, des ordres et des genres de ces animaux*. Deterville.

Lavoisier, A. (1790). *Elements of chemistry in new systematic order, containing all modern discoveries, illustrated with 13 copperplates, translated from the French by Robert Kerr* (1st ed.). William Creech.

Morioka, M. (2020). Continuity and discontinuity between the psychological world and the biological world. *Integral Psychology and Behavioral Science*, 54–3.

Morrisey, Marion (2021). An Irish Landscape [Painting]. Private Collection, Ireland.

Pineau, G., & Michèle, M. (1983). *Produire sa vie. Autoformation et autobiographie*. Saint-Martin.
Pop-Jordanova, N. (2021). Transgenerational Transmission of Trauma–Matryoshka Theory. *Academic Medical Journal, 1*(1), 3–10.
Ryan, R. M., & Deci, E. L. (1920). An overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3–33). University of Rochester Press.
Ryan, R. M., & Deci, E. L. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227–268.
Valsiner, J. (2001). Process structure of semiotic mediation in human development. *Human Development, 44*, 84–97.
Valsiner, J. (2016). The human psyche on the border of irreversible time: Forward-Oriented Semiosis. *International Journal of Psychology, 51*, 304–305.
Valsiner, J. (2020). *Hyper-generalization by the human mind: The role of sign hierarchies in meaning-making processes*. Psychosozial-Verlag.
Vygotsky, L. S., & Luria, A. (1930). *Tool and symbol in child development*. Online Version: Psychology and Marxism Internet Archive (marxists.org) 2002. https://www.marxists.org/archive/vygotsky/works/1934/tool-symbol.htm.
Vygotsky, L. S. (1931). *Development of higher mental function*. Online Version: Psychology and Marxism Internet Archive (marxists.org) 2002. https://www.marxists.org/archive/vygotsky/index.htm.

# Allegory Analysis: A Methodological Framework for a Tool for Psychology

**Linus P. F. Guenther**

## Why Analyze Allegories To Understand Our Feelings?

We live in a zeitgeist in which the transfer of information is increasingly related to images (through smartphones, social media, etc.). We live in a zeitgeist in which people are experiencing a rapid change in values and mores, in which culture has less and less to do with locality but is seen as an apperceptive tool that is negotiated reciprocally: intra- and inter-individually. We live in a zeitgeist of truth-appearances or probabilities based on statistical models, in which ambiguities are increasing in our lives. Just remember the perception of the Covid pandemic in 2020 and 2021. We live in a *zeitgeist* where the need for metaphors and allegories is greater than ever. But why? Through my research (Guenther, 2020, 2021), it could be outlined that in the moment of crisis, people are drawn to creativity and poetry because they offer a way to deal with uncertainties in a highly affective situation that cannot be captured by literal words (Mota, 2021). To describe complex and ambiguous concepts or feelings, people have always consulted allegories. Whether that was Justitia for jurisprudence as something rational (Fig. 1), the Venus for love as something emotional (Fig. 2) or the sculpture of the elephant on the shoulders of a man for bearing heavy weight of natural extinction on mankind's shoulders in the twenty-first century (Fig. 3).

Poetry and art are a central element of inquiry in cultural psychology and clinical psychology, respectively (Menzen, 2021). By analyzing the perception of art, the individual psyche can be understood through cultural psychological methods (Guenther, 2020). In my previous research on the topic, it found that people often formulate particularly intense feelings and thoughts in allegories (Guenther, 2020). Subsequently, this approach can be transferred to other situations of intense experience – the context of psychological crisis. It turned out that here, too, people express

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**Fig. 1** La Justice from Vincent Féraud (1831) (Source: https://www.bienpublic.com/edition-dijon-ville/2014/05/20/peinture)

themselves in metaphors and allegories when they want to describe complex and ambiguous psychological experience (Guenther, 2021). Therefore, the research project was expanded in this area and subjected patients from my psychotherapeutic practice to further investigation of allegories in case studies. In doing so, it was possible to develop the approach of a methodology to analyze or understand allegories as an expression of individual psychological crisis.

## An Introduction to the Allegory Analysis Method

In this chapter, I will introduce the method of Allegory Analysis (AA). AA is theorized as a method by which individual highly affective structures of meaning and significance, schemas or parts, life script ideologies, ambivalences that are

**Fig. 2** La Nascita di Venere by Sandro Botticelli (Created around 1485–1486) (Source: https://ih1.redbubble.net/image.591477441.7040/flat,750x,075,f-pad,750x1000,f8f8f8.u2.jpg)

poetically constructed by a person in a moment of personal crisis can be understood psychologically. In other words, AA here is a doorway for applied psychology to enter the poetic landscape of the subjective qualities of a personal crisis – the door is metaphors and allegories – organic ones at best. But why allegories not metaphors? When metaphors accumulate and line up, they build the psychological bridge from ambiguous, poetic images to meaningful and unifying ambiguous figures of thoughts and feelings (as *Gestalt*) – *allegories* (Haverkamp, 2009). Allegories imply subjective-emergent affective meanings, inseparable from the totality of its elements, created in systemic, non-linear feedforward loops between person and the manifold of social representations in a society at the given time or cultural context. Organic metaphors and allegories are particularly well suited because they are especially good at grasping the dynamics, complexity, and open-systemic nature of human biology, psyche, and sociality. In psychotherapy, apart from art therapy which can be considered marginalized and little academicized within classical psychotherapeutic approaches (Menzen, 2021) we rarely try to understand individuals

**Fig. 3** Acrobatic act by elephant and man Unknown Artist in Brussels (Source: self taken picture in 2021)

through their poetry. We usually do so only when a client is an artist (Menzen, 2021), perhaps because we think this gives us legitimacy for why he or she is artistic.

The definition of poetry and art that underlies this study is that of an expanded concept of art in the tradition of Joseph Beuys' (1977) social philosophy. Based on the idea that everyone is an artist and therefore can produce art, Beuys (1977) used this term to refer specifically to the creativity of people who together can produce a "social art" in the form of a social plastic or form of togetherness that constitutes our reality. Such a form of social art can be represented, for example, through poetic means of communication, such as allegories. In this sense, poetic sentiments are universal to everyone in every society at some point in time, because metaphorical, or allegorical, language exists in all societies (Tomassello, 2011).

In the sense of Blumenberg (1960), Lacan (1964), and Lakoff and Johnson (1989), it is a *conditio humana* to use poetic metaphors and allegories, since they are constitutive of a figuratively conceived psyche and the only way to express a semiotic wholeness of a subjective feeling. Reading these pioneers in the field of figural psycho-linguistics, one encounters for the most part organic or physical related metaphors and allegories. For example, *the dress* as a metaphor of personal change in Blumenberg's (1960) metapherology. Blumenberg (1960) was the first to point out the psycho-philosophical background of metaphors and allegories. Lacan (1964)

then shows that the images that make up an allegory on a manifest level refer to a latent level of meaning that the author of the allegory may not always be aware of. He was the first to point out the unconscious content of allegories through his treatise *Posición del Inconsciente* (Lacan, 1964). He even went so far as to postulate that through the creation of an allegory, further unconscious contents and new subjective meanings are created. For instance, a *golden vegetable ear*, Lacan (1964) sees in a patients dream as an allegory of fertility, nourishment, and growth. In the following, Lakoff and Johnson (1989) even dedicate a separate category to organic metaphors, which they call *body metaphors*, assuming that all human metaphoric (and thus allegoric) has its origin in physiological perception. They even assume that all human metaphors and allegories have a bodily experience as their basis.

## *The Theorists Who Laid the Foundation for AA*

### Haverkamp

In the theory underlying AA, allegory is not only considered as the construction of meaning and the result of communication. It is the relay of communication, the image in the imagination, and constitutes abstract interaction (Haverkamp, 2009). Therefore, both artistic (figurative, divergent) abstraction and scientific (discursive, convergent) abstraction must be conflated here. In distinction to the term *abstract*, by the term *concrete* is meant an object that is comprehended in its entirety by the concrete concept. Abstract, on the other hand, refers to a concept that reflects not an object but its property or attitude toward that object (Wood, 2017). At the same time, abstract objects are internalized concepts that constitute the immediate content of human thought and feeling: Concepts, judgments, beliefs, life-script-ideologies, etc. (e.g. the sword of Justitia, the naked body of a female in a seashell, or the elephant on a man) – where the abstract is interpreted as a method of gradually mentally dividing an object, developing concepts, forming more general images of reality constructivistically (Brubaker & Wang, 2015). From this point of view, the abstract is not entirely disjoint from the concrete. Abstraction as a universal type of scientific knowledge is used in mathematics, philosophy, aesthetics, cultural studies, art history, and psychology (Saarinen, 2008). Allegories are abstract and dynamic in their function for the human mind.

### Valsiner

Like any sign, they orient the mind in irreversible time from the experiences of the past to the *hypergeneralized* assumptions of the future. The psychological process of *hypergeneralization* is when a "[...] person has overgeneralized the sign used in the mediational hierarchy to the level where speech turns into speechlessness" (Valsiner, 2001, p. 94). In other words, if something has become very deeply

embedded into our meaning-making or value-system, we often cannot put it into words anymore; it is a very powerful *life-script-ideology*, guiding our everyday functioning in the world, it is intangible and implicit. Allegories as affective generalizations include hypergeneralisations. Moreover, hypergeneralised feelings are constructed through an allegory because they can be combined/changed in its aesthetical expression through the figural speech. Hence, the hypergeneralisations, when expressed in allegories, get expressed and constructed at the same time. In that sense, allegories are not only a possibility to understand and analyze the hypergeneralizations but moreover an intervention method to change subjective feelings. By getting expressed through allegories, hypergeneralizations become tangible to the consciousness. At the same time their creation produces new connections, referring to the collective cultural psyche (common cultural images for instance like the one of heavy weight on someone's shoulders) which create new hypergeneralization in a feed forward loop for the individual psyche. In summary, allegories express and construct meaning making and life-script-ideology. Hypergeneralizations can therefore be seen as anagogic ascent to values and as a topological guide to affective normativity (Valsiner, 2021).

## Lacan

As indicated above, the theory of AA cannot avoid some of Lacan's psychoanalytic ideas. The cathartic function, the depth hermeneutic approach, and the theory of transference (Lacan, 1964) are basic assumptions for AA. Many hermeneutic techniques attempt to gain insight into unconscious belief systems (Sullivan, 1977). AA can be seen as a hermeneutic means of understanding the allegory authors often pre- or still unconscious life-script-ideologies. Paradigmatic assumptions, which are usually unconscious belief systems, but difficult for the client and the therapist to recognize, can thereby be uncovered.

## Kurz and Blumenberg

Furthermore, in theory, allegories are inherently semantically ambiguous (Guenther, 2021; Haverkamp, 2009; Kurz, 1982). The exegesis of an allegory in art, allegorization in literature, and AA in psychology always point to more than one meaning of the allegory (Blumenberg, 1960; Sullivan, 1977). Another important theoretical aspect of AA is the shared cultural schemas behind each allegory. What schemas does a person choose as resources to create her allegory? What concept does she start from? The answers can tell us much about the motives and ideas behind the allegory (Sullivan, 1977) and thus about the ideology of the life script. The particular in an allegory (e.g., an allegory of Icarus concerning the sun as a metaphor for warmness and light) can be seen here as an example of the general, as a cultural schema (e.g., the light signifies spiritual truth and heartfulness). This is also the

essence of poetry: it expresses the particular without thinking of the general. After grasping the uniqueness, the trained listener or allegory analyst can see behind the particular the general: the cultural schemes of an era and the individual psychodynamics (Kurz, 1982).

#### Lakoff and Johnson

Furthermore, the *source* and *target area* (Lakoff & Johnson, 1989) of an allegory can give information about transferences of the author. "The source area of a metaphor refers to the experiential space from which the linguistic phrase is fed. The target area of a metaphor denotes the phenomenon that is being spoken about." (Schmitt, Schröder & Pfaller, 2018, p. 4). This step made it possible to understand the relational aspect of allegory as a central part of subjective sense and meaning making, through which we refer from ourselves to something else.

## *Summary: The Seven Central Assumptions*

In summary, the following assumptions of the authors stated above are the core cultural psychological functions of allegory that can be explored within AA:

1. Holistic expression of complex feelings in crisis situations.
2. Abstract-artistic-social interaction (poetic communication).
3. Expression of inner ambivalences (voices of the ambiguity in an allegory).
4. Expression of hypergeneralizations (affective structures of meaning and significance, life-script-ideologies).
5. Expression of schemata or inner parts.
6. Individual psychodynamics in norms and narratives (cultural schemata).
7. Experiences from the past (source area) & orientation in the future (target area).

## *AA in the Context of Psychotherapy*

The basic theoretical assumptions of AA stated above are related to some existing concepts from psychotherapy research. The aforementioned concepts of imagination, repression, and transference come from *psychoanalysis* (Ferenczi, 2004; Freud, 1915; Lacan, 1964). Also, the theory that the human psyche or personality is made up of various system components or parts originates from systems theory (Brubacher, 2006; Schwartz & Sweezy, 2019). Schemas, especially in the cultural psychology sense (Guenther, 2021), while more broadly defined in AA theory, are certainly overlapping with Young, Klosko, and Weishaar's (Young et al., 2003)

theory of *schema therapy*. The AA theory of working with ambivalences, life script ideologies, or regression also connects to *hypnotherapy*, e.g., regarding chair work (Butollo & Hagl, 2003; Paivio & Greenberg, 1995; Reddemann & Sachsse, 1996).

To remain true to the theme of the chapter – allegorically speaking, the AA could be accused of being theoretically old wine in new bottles. As the author, I can only agree with this in a complementary way by showing how it is a combination of established and proven grape varieties that work harmoniously and are pleasantly drinkable in a new hose in today's world. These new tubes and combinations of grape varieties will be introduced in this chapter and then critically discussed.

## The Method

After the theoretical introduction, in the following chapter the basic steps of AA will be presented and their execution explained. *AA* can be used *as a scientific method,* but also as a *practical-therapeutic tool.* Both possibilities will be included in the following description. At the beginning of the chapter, the preparations that should be made before an AA will be discussed (especially in the context of scientific work). Subsequently, the *four central steps of the analysis process* will be outlined and described in detail. The execution of each step will be introduced by exemplary analysis questions, validation possibilities of the analysis will be shown and hints for the practical handling of the method will be given.

### *The Four Steps of AA*

First, the analysis (intention, process, goals, content, and assumptions) has to be discussed with the participant (client, patient, etc) and described to them in detail in the forehand of the analysis.

In case of a scientific use of the AA, an information brochure can be handed out in addition to the obligatory verbal discussion, in which the research project is described in detail to the client. In a participation declaration, which is signed by the investigator and the client, anonymity, participation possibilities, purpose limitation, transparency, and dropout possibilities must be recorded. In the declaration of participation, the client agrees that his/her sessions will be recorded in writing and on tape in the coming months. The allegories mentioned in the sessions are recorded in writing, as well as the content of the sessions in its key points. Subsequently, the material will be analyzed with the AA, as suggested by Guenther and Krenn (in press), in four steps.

**1. Step**

In the first step, the content of the meetings is reduced to the essential key points. For this purpose, both the audio recordings (if available) and the written notes of the sessions are consulted. All mentioned allegories are extracted and described in the description in their respective context. The structure of the description is based on the order of the sessions. In order to be as transparent and descriptive as possible in the documentation, the original verbatim formulations from the sessions are quoted for central contents. The interpretative aspect of the description should be kept as low as possible.

**2. Step**

In the subsequent second step, these allegories are then combined into an allegory-poem in the order of their occurrence in the therapy process.

**3. Step**

In the third hermeneutic step, patterns in the allegory-poem are then explored. This may involve asking questions such as:

- Do the verses work together or relate?
- Are there categories, harmonies, dissonances, irritations?
- Are implicit voices discernible?
- Are there cultural norms that became moral values and personal positions?

For a better overview, the patterns perceived in this step can be color-coded in the allegory-poem. This visualization will help to better understand the patterns and make the interpretation clearer. According to these patterns, the content of the sessions is interpreted in the same step. The structure of the interpretation is also based on the sequence of the sessions. In this process, the allegories are also examined in their context for their source and target. Thus, it can be interpreted from and into which context of meaning a transference takes place. In addition, the *countertransferences* documented by the therapist in the sessions are included in the interpretation. For an example countertransference analysis process in the AA, see Guenther (2020). In addition, allegories were carefully examined for the subcomponents of the clients' *life-script-ideology* (Guenther, 2021). The questions listed here served as a guide (Guenther & Krenn, in press):

- What does the client think the world should be like?
- What do they wish/dream for?
- What kind of person do they want to be?
- What does life mean to them?
- What is good/bad for them?

– What do they want to achieve?
– What makes sense to them in life?
– What is appetizing/averse for them?
– What is just or unjust for them?

All answers or interpretations must always refer to concrete passages or allegories in the records. The goal of this hermeneutic step is to uncover the client's life-script-ideologies that were only covertly latent within the research period. Ultimately, this should lead to a deeper understanding of the client's psyche and a more effective treatment. At the end of the interpretation, the perceived findings and results can once again be summarized in relation to the client's life-script-ideology.

## 4. Step

In the last and participative step, the preliminary AA is presented to the client and discussed together with them in further sessions. Most of the time the client has comments in many parts, could validate parts, reject others. In their sense, all contents were edited, some parts were deleted, others were emphasized or rephrased. The debriefing is also documented and subsequently added to the description and interpretation. This participatory validation is not only essential for ethical reasons, but also an important step to give the client the opportunity to be involved in the process of knowledge production. With this step, client can be given the opportunity to reject the interpretations and prevent publication of their AA (Fig. 4).

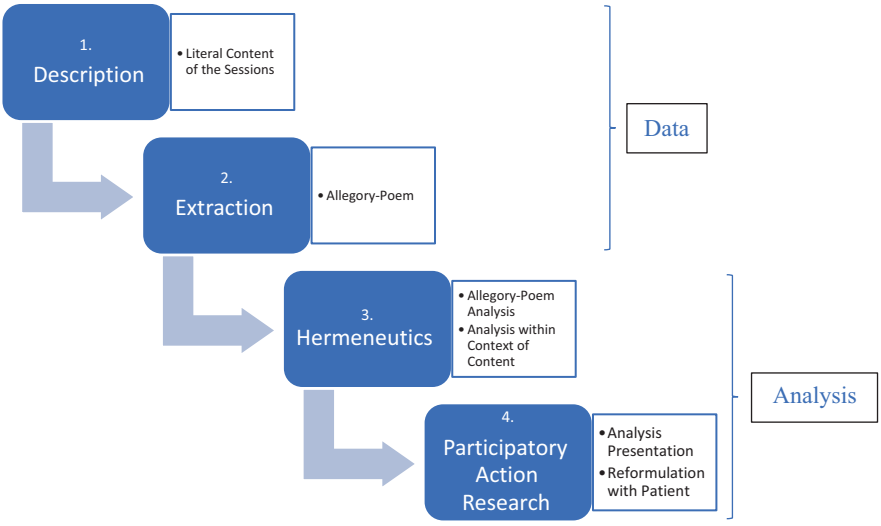


**Fig. 4** The four steps of the AA, Source: Guenther & Krenn, in press

In summary, the steps can be recalled with the following contents in bullet points:

1. Description.
   - Describe the *main content* of the Data (interviews or therapy sessions).
   - *Only literal* content: reformulation and verbatim speech.
   - Include the *allegories*.
   - *Minimize interpretation*.
2. Extract the A-Poem.
   - Extract *all allegories* from Step 1.
   - *Line them up* in order of their appearance.
   - *Include some of the wording* around the allegory if necessary.
   - *Be happy that you created art* out of Allegories!
3. Hermeneutics and Interpretation.
   - Enjoy the poem: *Analysis of the allegory poem.*
     - Source and target area.
     - Interactions.
     - Categories, harmonies, dissonance, confusion.
     - Implicit voices.
     - Cultural norms, moral values, and personal positions.
   - *Analyze the findings in the context of the content description.*
     - Put interpretations in their content-context (refer to concrete data).
     - Check subcomponents of a life-script-ideology.
4. Participatory Action Research.
   - *Present analysis*.
     - Discuss interpretations.
     - Reformulation with client.
   - *Clients interpretations.*
     - Highlight interpretations with great response
     - Include new interpretations for client.

## Some Answers and More Questions

### *A Critical Reflection of the AA*

AA is not a therapeutic approach in itself. However, it can be seen as a method that points to issues that may be central to further therapy. In this respect, it could be described as a hermeneutic tool to elicit ambivalences, coping mechanisms, inner

parts, and life-script-ideologies for therapeutic practice. Certain psychotherapeutic "follow-up" tools or intervention methods might be particularly well suited for treatment after AA has been conducted. Especially those psychological or psychotherapeutic approaches described in the introduction seem to be suitable due to their theoretical and practical affinity with AA. For example, the method of *inner parts* based on Virginia Satir (Brubacher, 2006; Schwartz & Sweezy, 2019), which originates from systems therapy, seems ideal for working with the parts found through AA. Also, through a *schema-therapeutic intervention* according to Young, Klosko, and Weishaar (2003), so-called *maladaptive schemas* and *modes* could be further explored, worked through, and integrated into the clients' personality structure. Or a consciously made ambivalence from AA can be further worked through with *chair work* originating from Gestalt therapy (Butollo & Hagl, 2003; Paivio & Greenberg, 1995). Imaginative approaches from psychoanalysis (Balint, 2002; Ferenczi, 2004) or hypnotherapy (Reddemann & Sachsse, 1996) to regression to reflect memories from childhood to the development of a life-script-ideology elaborated through AA could also be imagined. In general, maladaptive coping strategies for need satisfaction, negative beliefs from life-script-ideology, ambivalences, etc. could be therapeutically resolved in this way.

One common accusation that hermeneutical-psychological theories often must face also applies to the idea of AA: "If we try to say what the metaphor [or allegory] means, we will quickly find that what we want to say is unlimited." (Davidson, 1978, p. 73). In that sense, the AA does not fulfill the academic needs of inclusiveness for scientifically describing a phenomenon. Although, the allegory can be seen as natural, it is a psychological phenomenon of the human mind, a subject of humanities. Nonetheless, a scientific explanation in psychological terms is:

> [...] an account of an event, behavior, or thought that is couched in terms of an established set of scientific principles, facts, and assumptions. Typical forms of explanation may be reductionistic, analyzing a phenomenon into components and describing how they combine to produce the phenomenon; ontogenic, relating the phenomenon to a universal set of developmental stages; empiricistic, describing a phenomenon in terms of the conditions that have been observed to produce it; or metaphoric or categorical, identifying a phenomenon as similar in some important respects to other phenomena already understood. Such an explanation stated systematically is generally known as a theory (APA, 2015, p. 941).

Therefore, understanding implicit and ambiguous meanings in metaphors and allegories should not only be an everyday phenomenon, but also become a scientific one. Certainly, this cannot be achieved by a reductionist, ontogenetic, or empirical analysis alone, but only by combining them and attempting a metaphorological, cultural-psychological AA. Nevertheless, the method of AA must fail if it wants to understand the completeness of a feeling or a thought, because it tries to conceptualize the incomprehensible (Blumenberg, 1960). AA is intrinsically intermittent and incomplete because it breaks in its own reflection using words (when words are themselves seen as metaphorical in the tradition of Blumenberg, 1960, cf. Haverkamp, 2009, p. 253). Consequently, this imprecision (Wittgenstein, 1994) or imprecision of knowledge must be acknowledged in the process of AA and incorporated into the findings. AA must always leave the result open to correction (e.g., by

the author of the allegory) and never claim to find the so-called "truth." With Schleiermacher's (1838) idea of the human sciences, AA is an infinite search. It remains only to respect its limits, to allow transgressions and to provoke contradictions.

## Conclusion

In the end, we might say, that current theorizing leads to more questions than answers. Again, I believe this is a life-script-ideology and ambivalence that scholars must confront no matter what the topic.

In a follow up chapter in this volume, the scientific practice of this chapter – an application of the AA will be presented in a case study: *The Story of Isepal* (Guenther, in press). This case study will demonstrate the practical implications of the method of AA, symbolize theoretical assumptions, and illustrate the dos and don'ts of the AA. The general *take home message* of this research – that the methodological analysis of the inherently allegorical human mind, enhances the understanding of psychology today – will then be illustrated in a real life situation.

## Dialogue Sequence

Throughout the review process many fascinating follow up questions were raised. This dialogue sequence can be seen as an extension of the discussion part of the chapter. It can be also seen as a critical reflection of the limits and new pathway of thinking that the reviewers and the author could go on from there. The comments by the reviewers in the dialogue are marked in italic.

*"If you had to explain to someone the process of generating the poems and analyzing it. Which kind of image would you use?"* (Reviewer 1).

A spontaneous image that came to my mind was the "wine in bottles". In the paper, I wrote that "[…] allegorically speaking, the AA could be accused of being theoretically old wine in new bottles: how it is a combination of established and proven grape varieties that work harmoniously and are pleasantly drinkable in a new hose in today's world. These new tubes and combinations of grape varieties will be introduced in this chapter and then critically discussed.". Yet, I want to add here that the allegory would rather fit to my mind if you change the adverbs here and name it "new wine in old bottles" (p. XY). Another reviewer commented this part stating that it is *"Interesting, when taking in consideration that the old bottles have also changed over time. As humans change their position directed to their tools change as well. [There might be] Old and new changes at the moment of filling.*"(Reviewer 2). Another question those comments raise is: with which images, e.g., metaphors and/or allegories does the analyzer of the allegory-poem articulate their analysis? The analysis of the allegories used in the analysis by the analyst might be another

research on countertransference. This could be seen as another tool of insight into the depth-psyche of the participant of the study. Yet, it might also be another AA of the analyst if the allegories are an expression of the self of the analyst instead of being a countertransference in reaction to the allegories of the participant. These questions date back to one of the godfathers of psychotherapy, Sigmund Freud (1912) who intentionally published his first thoughts about transference more than a century ago.

Moreover, an important question that often reaches me when I present my work is:

*"[…] is it [the process of AA] similar for all clients or is there a big difference between clients on how well it works?"* (Reviewer 1). I believe this is a central question when it comes to the applicability of the AA in practice (which is for me the ultimate goal of the methodology). Generally speaking, I made the experience that the application of the AA only makes sense under the following conditions:

- The relationship between the therapist and client must be built up – at least in so far that the client trusts the therapist in their interpretations and believes in their positive intentions.
- The client has a tension to articulate their feelings in a figural sense, has a vivid imag(e)ination so to speak. In other words, if the client uses a lot of metaphors and allegories to express thoughts and feelings (one might say, if the person is creative in that sense).

When I started to work on the concept of AA, I believed there must be a difference in education or knowledge of language. Interestingly, I did not find any difference for that variable. On one hand, it seems that clients with higher education and great knowledge on words have the possibility to express themselves allegorically through their capacity of cultural images and possible combination of words. On the other hand, it seems that clients without a long scholastic career and a comparatively lower knowledge on word and language often tend to express themselves allegorically due to a lack of concrete words for specific thoughts or feelings. It seems to be often easier for them in such situations to express themselves in images and figures then finding the "correct" word for it.

## References

American Psychological Association. (2015). *APA dictionary of psychology* (2nd ed.). American Psychological Association.

Balint, M. (2002). *Therapeutische Aspekte der regression. Die Theorie der Grundstörung (3)*. Klett-Cotta. (Original veröffentlicht 1968).

Beuys, J. (1977). Kunst und Staat. *Stiftung Gesellschaft für Rechtspolitik. In Trier (Hrsg.). Bitburger Gespräche. Jahrbuch, 78*, 135–137.

Blumenberg, H. (1960). Paradigmen zu einer Metaphorologie. In C. Bermes, H. Busche, & M. Erler (Eds.). *Archiv für Begriffsgeschichte, 6,* 7–142.

Brubacher, L. (2006). Integrating emotion-focused therapy with the Satir model. *Journal of Marital and Family Therapy, 32*(2), 141–153.
Brubaker, D. A., & Wang, C. (2015). Paths of contemporary Chinese ink art. In D. Brubaker & C. Wang (Eds.), *Jizi and his art in contemporary China: Unification* (pp. 39–58). Springer. https://doi.org/10.1007/978-3-662-44929-5_4
Butollo, W., & Hagl, M. (2003). *Trauma, Selbst und Therapie. Konzepte und Kontroversen in der Psychotraumatologie*. Huber.
Davidson, D. (1978). What metaphors mean. *Critical Inquiry, 5*(1), 31–47.
Ferenczi, S. (2004). Sprachverwirrung zwischen den Erwachsenen und dem kind. In H. Balint & S. Ferenczi (Eds.), *Schriften zur psychoanalyse II*. Psychosozial. (Original veröffentlicht 1970).
Freud, S. (1912). Zur Dynamik der Übertragung. *Zentralblatt für Psychoanalyse, 2*(4), 167–173.
Freud, S. (1915). Die Verdrängung. *Internationale Zeitschrift für Ärztliche Psychoanalyse, 3*, 129–138.
Guenther, L. P. F. (2020). Homo Allegoris: How art perception and allegory analysis reveal the life script ideology. In G. Marsico & L. Tateo (Eds.), *Human arenas (3)*. Springer.
Guenther, L. P. F. (2021). Feelings of quarantine - allegories for the lock down. In *Culture & Psychology* (pp. 1–19). Springer.
Guenther, L. P. F., & Krenn, V. (in press). Allegory Analysis - from Cultural to Clinical Psychology. Cultural Psychology in Clinical Research and Practices In A. Namdiero-Walsh & J. Jacobi (Eds.) Advances in Cultural Psychology, 53.
Haverkamp, A. (2009). Metapherologie zweiten grades – Unbegrifflichkeit, Vorformen der Idee. In A. Haverkamp & D. Mende (Eds.), *Metapherologie. Zur praxis von Theorie* (pp. 237–256). Suhrkamp.
Kurz, G. (1982). *Metapher, Allegorie, symbol*. Vandenhoeck & Ruprecht.
Lacan, J. (1964). Posición del inconsciente. *Escritos, 2*, 509–557.
Lakoff, G., & Johnson, M. (1989). *Metaphors we live by*. The University of Chicago Press.
Menzen, K. H. (2021). *Grundlagen der Kunsttherapie*. UTB.
Mota, P. (2021). Creativity and mental illness: Vincent van Gogh as the archetypal figure. *Journal of Psychohistory, 49*(2).
Paivio, S. C., & Greenberg, L. S. (1995). Resolving unfinished business: Efficacy of experiential therapy using empty-chair dialogue. *Journal of Consulting and Clinical Psychology, 63*, 419–425.
Reddemann, L., & Sachsse, U. (1996). Imaginative Psychotherapie-verfahren zur Behandlung in der Kindheit traumatisierter Patientinnen und Patienten. *Psychotherapeut, 41*(3), 169–174.
Saarinen, E. (2008). Reflections of a practitioner philosophy of management. *Philosophy for Managers, 7*(1), 3–24.
Schleiermacher, F. (1838). *Hermeneutik und Kritik mit besonderer Beziehung auf das Neue testament* (p. 7). Reimer.
Schmitt, R., Schröder, J., & Pfaller, L. (2018). *Systematische Metaphernanalyse*. Springer.
Schwartz, R. C., & Sweezy, M. (2019). Internal family systems therapy. Guilford Publications.
Sullivan, M. A. (1977). Madness and folly: Peter Bruegel the Elder's Dulle Griet. *The Art Bulletin, 59*(1), 55–66.
Tomassello, M. (2011). *Die Ursprünge der menschlichen Kommunikation*. Suhrkamp.
Valsiner, J. (2001). Process structure of semiotic mediation in human development. *Human Development, 44*(2–3), 84–97.
Valsiner, J. (2021). *General human psychology*. Springer.
Wittgenstein, L. (1994). *Wiener Ausgabe: Philosophische Betrachtungen*. Springer.
Wood, R. E. (2017). On painting. In R. E. Wood (Ed.), *Nature, Artforms, and the world around us: An introduction to the regions of aesthetic experience* (pp. 95–128). Springer International Publishing. https://doi.org/10.1007/978-3-319-57090-7_6
Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy*. Guilford.

# The Knot and the Psyche: A Study on the Dynamism of the Psyche by Means of the Knotting Praxis


**Raffaele De Luca Picione**

## Introduction

This contribution aims to deepen the importance, transversality, and diffusion of the knotting in human experience. During the day, each person repeats the action of tying something at least a dozen times (in the past, even more frequently). It is an operation that is both abstract/logical and practical/manual/embodied, very often invested with symbolic and ritual value capable of holding these two levels together. The interest in knotting is not purely attributable to cultural, symbolic, and mythological knowledge. It has recently become a specific interest in the mathematical branch of topological geometry, biology, and even physics.

There are many possible definitions of the knot, however, one possible generalized definition is to consider the knot as a complex entangled system of strings, fibers, lines, forces, and trajectories (anything capable of that) that are held together either in an orderly manner (through symmetrical configurations, repetitive isomorphic structures) or chaotically (tangles, confusions, inextricability, etc.).

The focus on the knot implies a special way to take into account both the metaphorical and pragmatic levels. In fact, the whole chapter is constructed on the development of the powerful multidimensionality of the experience of knotting for human beings: on the one hand, it is a metaphorical meaning of the life (at each level: biological, psychological, anthropological); on the other hand, the knot imposes the development of semiotic skills and cultural abilities.

While tying a knot means indeed metaphorically joining things together or blocking them, it is also true that tying a knot is an important manual experience involving a precise and concrete sequence of acts. On both sides (metaphorical and

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pragmatic), knot tying provides opportunities for psychic and cultural development. Küchler states that "the knot is the knowledge, a knowledge of the linking of things, material and mental, that may as well exist apart" (Küchler, 2001, p. 71).

In the course of this chapter, we will go through both valences in depth without ever separating them but striving to keep them linked.

Generally, the knot refers to the intuitive and common sense idea of linking, of holding two different entities together, and by extension its meaning forks, on the one hand, towards the sense of bond, union, belonging, origin in common, and, on the other hand, we move in the direction of the sense of impediment, blockage, and constriction. At the same time, undoing a knot can mean, on the one hand, losing a bond, ending a union, being alone, severing a belonging, and, on the other hand, freeing, breaking a block, eliminating an impediment, and re-encouraging the resumption of interrupted activities.

We can pay attention to the knot as something that is presented as already completed or given or to the knot as a process, a movement that is being produced by an action. In the first case, it lends itself to being understood more as a symbol, namely an object that within a certain shared field of meaning—for example, a shared culture of religion—presents itself to the attention of its users by postponing and activating certain meanings, promoting or inhibiting certain behaviors, communicating certain information (think of the knots of a monk's cord, a particular female hairstyle, the symbol of a knot on the door of a cathedral, etc.). In the second case—of a performative type—the knot lends itself more to being performed (in its knotting or untying action). It is a practical, manual, deeply embodied and ecological activity (since it involves movement in the environment, the use of a support/material, the tensioning of forces and thrusts, etc.). Its making requires an exact reproduction of phases and passages (and in this procedural aspect, it is possible to find a *ritual dimension of the knot*, which therefore fails if it is not done in exactly the right order). We could say that knotting as an action shows itself almost like a dance, and as such, it produces an aesthetic, artistic experience connected to a certain gradient in the pleasure/displeasure *continuum*.

Deepening our preliminary analysis of the knot (symbol versus action), we observe that it produces a discontinuity: a node is always an element of singularity, of idiosyncrasy, of contingency. It interrupts the undifferentiated, continuity, and symmetry, generating a local singularity, a discontinuity. That is, it folds, it twists on itself, and it overlaps/blocks/binds together different trajectories.

Therefore, the knot lends itself to provide interesting insights for the development of a model of human experience, keeping together:

(a) Inter-subjectivity (the bond/knotting—conflict/dissolution between people);
(b) Temporality (the becoming of the knot over irreversible time while it takes place, but also its holding over time as a possibility of permanence and reification);
(c) The action trajectory (the action as a catalyzed precipitate of a series of developmental/processual lines that are linked together in a certain contingency set), etc.

Perhaps it will seem superfluous to remember it, but the moment of human birth is marked by an operation to cut the umbilical cord and its knotting. In this circumstance, we have the interpenetration of biological and cultural processes that introduces the unborn child into the extrauterine world. As Lajos Saghy (1996) points out in a very interesting way, it is possible to trace a certain affinity between the myth of the expulsion from Eden, the earthly paradise, and the Greek myth of the Androgyne. In the biblical myth, God expels man and woman from heaven because they have sinned of pride, wanting to eat the fruit of the tree of knowledge, and therefore they are excluded from a mythical dimension of fusion and indistinction with the state of nature. Let us think of the intrauterine life in which the placenta ensures a condition of absence of sensory disturbances—pressure, temperature, etc.—absence of hunger and thirst, since nutrition is ensured through forms of constant and gradual food intake through the umbilical cord.

In the Greek myth, Zeus is concerned by the advance of the pride of the androgynes (a being double, both male and female, with two heads, four arms and four legs) and their will to climb Olympus and fight against the gods. Therefore, the Father of the gods cuts the body of the androgyne into two parts with a blow of the sword (generating in them a perennial desire for union among them) and he asks Apollo to stretch their skin along the body by tying it on the belly by means of the navel knot. The front and visible position of the umbilical node serves each androgynous as a *memento* for the punishment of their original pride and arrogance.

The navel is the knot that marks the human body since its inception, in the act of entering the world, the loss of an original state of fusional indistinction—characterized by the absence of needs and necessities.

Knotting is one of the hallmarks of human activity in terms of the manipulation of materials[1] (weaving of baskets, weaving of clothes, hair styling, etc.) and of the symbolic mediation of experience (as we will see, the same language can be considered a weaving action starting from the linguistic material). Although it requires a certain level of manipulative complexity and sophisticated abstraction, it is a very ancient activity, lost in the mists of time, widespread in all populations of the globe, and—although a much older origin is conceivable—it is possible to find sculptures and rock representations of knots as early as 7000 years BC (Sansoni, 2010).

It is impossible to retrace the multitude of examples, stories, and events connected with knots and tying. Below we will offer a multidisciplinary excursus on knots, crossing mythology, anthropology, mathematics, physics and biological sciences, cultural psychology, and psychoanalysis. It will allow us to show how

[1] Incidentally, we point out that in the ethological field, the question of whether animals know how to tie and make use of knots is currently open. Herzfeld and Lestel (2005) have shown that great apes are able to tie with their hands and feet using plant materials and fibers. Yet, we cannot consider great apes are able to reach the complexity of human knots. In addition, think also of the ability of many birds to weave their nests with great skill and technical ability, while the debate remains open as to whether it is an instinctual ability or transmitted generationally through observation and imitation. In addition, in the kingdom of insects, the ability of arachnids to weave cobwebs and nets of the highest sophistication and complexity is remembered.

there is always a centrality of knotting in human experience as: carrying out an action, tool/sign for connecting and binding, as modeling of phenomena and processes.

## The Knot in Mythology and Symbolism: Stories and Symbols with a Complex Meaning

In ancient Egypt, the Thet's Knot or Isis' knot (believed to be magical) was very common, the intertwining of which depicted anthropomorphic features, symbolizing the goddess Isis. It was considered as a symbol of eternity, immortality, and when worn it assumed the apotropaic function of amulet and protection (Fig. 1).

In Greek-Roman culture, the *Nodus Herculeus*, the Hercules' knot, refers to the particular way in which the hero fastened the skin of the Nemean lion. This knot was reproduced on the wedding day. The bride had a belt with such a knot. On the wedding night, the husband untied this knot.[2] It was considered a sign of the guarantee of virginity, but above all, it was believed that this symbolic knot was a good omen of fertility and abundance, as it is said that Hercules had 70 children (Fig. 2).

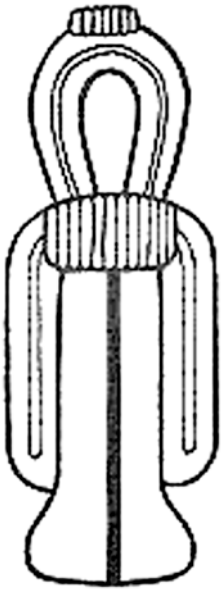


**Fig. 1** Thet's knot (Isis' knot)

[2] In Latin, the pregnant woman is said to be "*incinta*" (in-cinta), referring to the meaning of "*without a belt*", "*untied from the belt*".

**Fig. 2** Hercules' knot

**Fig. 3** Solomon knot

All over the world, it is possible to find a very ancient knot called Solomon's knot (for an in-depth research on finding sources all over the world, see Fratti et al., 2010) (Fig. 3).

Generally, it is attributed the meaning of the indissoluble union between the divine and the human, between heaven and earth, between the microcosm and the macrocosm in (think of the hermetic tradition). The main feature is its symmetry between top and bottom, left and right, from whichever side it is observed; it therefore maintains the same shape and value. It is widespread in Roman mosaics, in early Christian and medieval art, throughout Africa and even in the pre-Colombian Americas.

Another reference of the Greek tradition is the story of the Gordian knot. Gordius, father of the legendary king Midas, was a poor peasant who became king of Phrygia. In homage to the goddess Sabatius, Gordius stared his chariot in his palace through an intricate knot of dogwood bark. According to a prophecy, whoever was able to untie this knot would become owner of the whole of Asia. In 333 BC Alexander the Great—aware of the prophecy—after trying in vain to untie the knot, cut it with a clean blow of his sword. The episode is remembered with the meaning of the phrase "cut the knot" as a way of finding a quick and unexpected solution (which breaks the rules of the game) to a complicated and persistent problem. The empire of Alexander the Great had an ephemeral duration.

Mythology presents the action of weaving connected to the domain of human existence in which femininity and the time of life play a fundamental role in the affairs of human beings. The myth of the three Moiras and the myth of Penelope are exemplary.[3] The three Greek Moiras (which have a great affinity/similarity with the

[3] Remember that even the myth of Aracnee indissolubly connects weaving with femininity.

three Roman Parks and the three Germanic-Scandinavian Norns) are three divinities (born from the meeting of Zeus and Themes, who is the goddess of order, justice, and immovability; or of Zeus and Ananke, recognized as goddess of necessity, fate, and destiny; or daughters of the Night): *Clotho*, the spinner of life, *Lachesis*, the fixer of fate and *Atropos*, the cutter of the thread, she who irremovably cuts the thread of life with death. They preside over the three crucial moments of human life, birth, marriage (sexual activity), and death. The three Moiras with their unshakable and fixed order restrain the very power of the gods.

In the Homeric myth of the Odyssey, we find the action of weaving by a woman. Penelope awaits the return of her husband Ulysses for 20 years, stalling in the face of the demands of the suitors who had settled in her house. She had informed them that she would decide with whom to join at the conclusion of the weaving of a canvas, which however spun by day and unraveled at night. When she is betrayed by a handmaid, who revealed her secret, she is ordered to choose a new husband. Only the arrival of Ulysses, under the false guise of a beggar, made it possible to ascertain her fidelity and prevent the celebration of the union with one of the suitors. The true king of Ithaca killed the suitors, after proving that he was the only one who knew how to use the bow he himself built before his departure. By extension, it would seem that the weaving held open by the woman allows the man to take action. The time woven by women, once kept alive by waiting, makes the experience of travel and return possible.

By extension, it should be remembered that always in the Odyssey, Ulysses asks to be tied to the mast of his ship to listen to the song of the sirens and at the same time to resist the temptation to go mortally toward the rocks where they dwell. The binding is used here as a crafty expedient that limits the possibility of action in certain circumstances but also as a protection from encountering dangers.

Mircea Eliade in his essay *The God who binds and the symbolism of knots* (1961) shows a substantial review of mythological references on the power to bind (imprison, capture, block but also free, heal) of the gods through the use of laces, ropes, and knots. The references come from India, from the classical Greek and Roman world, from the mythology of northern Europe, Celtic, Norse and German, from the Mesopotamian world, from the Semitic culture, and from the oceanic and Pacific regions. The knot is considered a fundamental element for what concerns its relationship with magic and religion. Think of the religious idea of the network as a system of connection of creation, the cosmological vision that considers the *Tao* as the "chain of the entire creation" of the network, the Babylonian principle *markasu* (which means link, rope) which indicates "the cosmic principle that unites all things."

From this point of view, the weaving (in some cases called *arabesque*) has been widely used in Coptic, Irish (e.g., think of the wonderful *Book of Kells*), Viking and Islamic religious art traditions (the *Alhambra* in Granada is a stunning example of figurative and architectural intertwining), and in Romanesque and the Renaissance period. The intertwining is often made up of lines, ropes, lattices, self-organizing

fractal shapes, stylized figures that are knotted together of men, animals, snakes, and plants. It expresses the meaning of the indestructible and indissoluble link between phenomena and living forms, with a possible double value: on the one hand, it refers to the impossibility of getting out of it (think of the Buddhist vision of the world of appearances as an infinite connection of related phenomena—the law of *Karma*); on the other hand, the interweaving refers to the vitality of the line, to growth, development, differentiation, movement, the complexification of forms (labyrinths, forests, plots of stories, twists of the repetition, and the unexpected).

Returning to Mircea Eliade, he recalls that in the magical context the most important situations about knots are connected to two areas: (1) the magical bonds used against human adversaries (in war, in witchcraft) and at the same time the opposite operation of the cutting of bonds; (2) knots and beneficial bonds, a means of defense against wild animals, against diseases and spells, against demons and death. The orientation of the nodes can therefore be positive or negative, but in any case it is always central in the experience of the sacred and in all those so-called *limit situations* of struggle, illness, death, sexuality, knowledge, and of the sacred. The labyrinth itself—associated with the idea of difficulty, danger, and of an initiatory path—is understood as a knot that needs to be untied. The illusion itself is considered as a *veil*, as a *network of knots* to undo and free (think of the idea of attachment: both in Indian Vedic thought—freeing existence from the *chains* of existence and illusion, and in the Platonic thought—in the myth of the cave one must free oneself from the chains that hold man in the cave and prevent him from seeing the deception of the shadows).

Such a considerations lead us to acknowledge the knot, the tie, the bond, and the network represent as an archetype or better a constellation of archetypes (the texture of the Cosmos, the thread of human destiny, the labyrinth, the chain of existence, and so on). The knot works as mythic symbol loaded by moral values on the human existence.

## Knots, Chains, and Braids in Topological Geometry, Biology, and Physics

Topology, defined as geometry of elastic surfaces, deals with those properties of figures that remain unchanged when space is stretched or deformed in any way (without causing tears, cuts, or holes). As curves, nodes are nothing more than one-dimensional surfaces (Odifreddi, 2018). From a topological point of view, a knot is in fact composed of a rope whose two ends are joined (Fig. 4).

Therefore, it is a closed curve of space. Furthermore, it is essential to define different levels of complexity of the nodal shapes, in fact there is a distinction between "single knots," "links" (i.e., sets of several knots intertwined with each other—think of chains), and "braids" (vertical ropes fixed to a horizontal bar at the upper and

**Fig. 4** Trivial knot

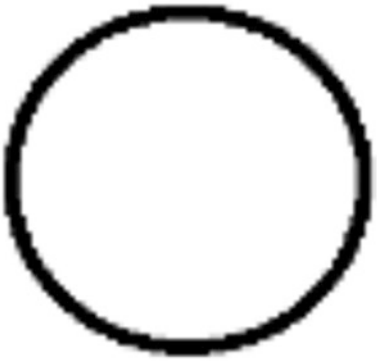
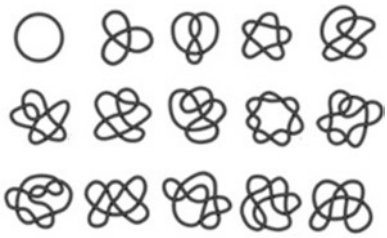


**Fig. 5** The classification table of the first 15 knots



lower extremities, which overlap along the path creating a series of intersections) (Dalvit, 2012a, b).

The main questions posed by the knot topology concern the closing/opening of the curve, the possible equivalence between knots beyond appearances and/or diversity, the possibility of classifying the nodes by identifying structural elements of invariance.

In 1771, the French mathematician Alexandre-Théophile Vandermonde introduced the idea that knots could be studied as a function of a qualitative system of relationship dependent solely on position, instead of starting from a quantitative measurement and calculation. The well-known German mathematician Carl Friedrich Gauss also dealt with knots by dedicating himself to careful descriptions, drawings, and analysis of the properties of knots. However, a systematic interest begins with the English physicist William Thomson, later known as Lord Kelvin. He worked toward the construction of a theory of atoms starting from the idea that they were vortices of knotted ether tubes.

The idea, only apparently absurd, was based on the fact that, while the smoke tends to dissolve rapidly in the atmosphere, the vortices would be preserved indefinitely in a perfect fluid like the ether (Odifreddi, 2018). Therefore, many of his efforts went in the direction of classifying the knots, in an attempt to formalize a sort of Linnaeus table of knots, exactly like the periodic table of the elements (Figs. 5, 6, 7, 8).

**Fig. 6** Ouroboros

**Fig. 7** The knot with three crosses

As we have seen, the simplest possible knot—defined as "trivial"—is a closed circular curve.[4] The next knot is instead a three-cross knot, the "trefoil knot,"[5] followed by the so-called "eight-knot" characterized by four crossings, and so on. However, we must consider that as the number of crossings increases, the possibilities of knotting increase exponentially, so for example we can have many nodes that have the same minimum number of crossings (for example, a node with 7 crossings can have 128 configurations!).

The Scottish physicist and mathematician Peter Guthrie Tait, a friend of Thompson, devoted himself to this task of classification, going so far as to tabulate up to nodes with seven crossings in 1885. It became clear then that the classification

[4] We point out how the very famous symbol of the *Ouroboros*, the snake biting its own tail, understood as an eternal, infinite cycle, and the joining of opposites, is exactly the first possible knot, which is the simplest knot that exists.

[5] One of his oldest testimonies of the trefoil knot is the *triquetra*, "triangle" (from the Latin *quetrus*, "corner"), used by the Celts and by the Christians.

Another trefoil knot is the *valknut*, "warrior's knot" (from the ancient Scandinavian *valr*, "warrior", and *knut*, "knot"), which appears as early as the seventh century in a stele in Tängelgarda, Sweden.

**Fig. 8** The valknut

of knots was a challenge to knowledge for the man, having to be able to find the formula, the algorithm, capable of distinguishing one node from another, without duplication or confusion.

In 1885, Tait managed to get to the knot classification tables of up to 10 crossings, yet was unable to continue further. Charles Newton Little was also able to autonomously arrive at a classification of nodes up to 10 crossings in 1889.

The topology of the nodes began to become a growing area of theoretical interest, and the main objective was to identify the properties capable of distinguishing one node from another, the so-called invariants of the nodes (i.e., the minimum number of possible crossings). However, the simple identification of the invariants did not allow to reach univocal and definitive conclusions (the same number of crossings can define many different nodes). In 1928, the American mathematician James Waddell Alexander was able to discover an important invariant, the *Alexander polynomial*, which is an algebraic expression that defines the node based on the arrangement of the intersections. Although this formula was not conclusive (consider that if two knots have two different Alexander polynomials, then the nodes are necessarily different; but if two nodes show the same polynomials they can still be different).

In the 1960s, the English mathematician John Horton Conway defined a procedure to gradually "untie" the knots. The system provided for two types of operations: (a) "*flip*" (the crossing is transformed by passing the upper section of the string under the lower one) and (b) "*smoothing*" (the crossing is eliminated by cutting the two strings and their re-gluing) (Fig. 9).

In 1984, the New Zealand-born American mathematician Vaughan Jones came to an outstanding discovery that revolutionized knot classification systems. He was working on the abstract notions of "von Neumann algebras" and realized that there was a close relationship with the theory of knots, managing to formulate an innovative invariant of knots, the *Jones polynomial*.

Since then, many other discoveries have been made, but the essential note is that a definitive theory of knots has not yet been formulated although we are currently able to arrive at classification tables with almost 2 million different knots (Livio, 2011) (Fig. 10).

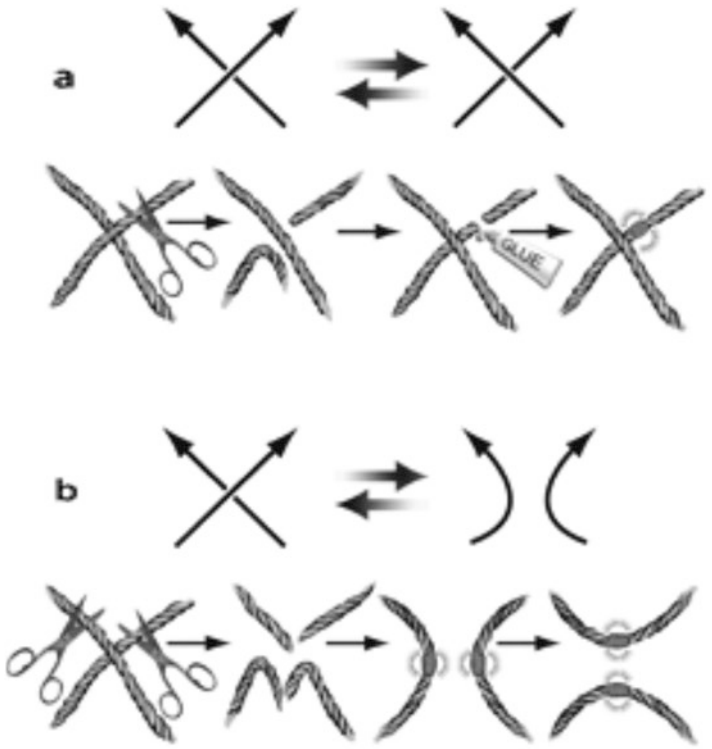



**Fig. 9** Conway's procedures: (a) *flip* and (b) *smoothing*

When we move from knots to links, the situation becomes even more complicated. The simplest link is the so-called *Hopf link*. In a very simple way, it consists of two intertwined rings and with two crossings (Fig. 11).

Another link with two knots is the classic Solomon's knot (already introduced above for its symbolic and archetypal value). It consists of two doubly intertwined rings and with four intersections (Fig. 12).

As for the intertwining of two rings, called the *Whitehead link*, it is built by making a half turn of a ring, forming an eight, and then passing another ring through it. This link, unlike the others seen up to now, is no longer a toric knots (i.e., figurable on the donut-like surface of a torus), but a hyperbolic node, i.e., it delimits a complementary surface of space that responds to the functioning of the hyperbolic geometry (Fig. 13).[6]

If we pass to three rings, we can mention the famous *Borromeo link*. The three rings are chained in such a way that when one is broken, the other two remain unattached. It is also a hyperbolic link. It takes its name from the Italian aristocratic

[6] Projective, hyperbolic and elliptic geometries are particular geometries called non-Euclidean, since Euclid's fifth postulate regarding parallel lines is not valid for them.

**Fig. 10** Hopf link

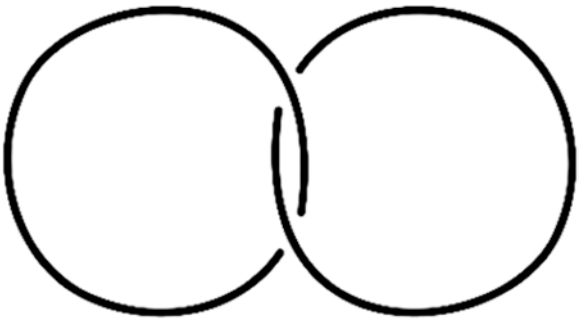


**Fig. 11** Solomon's knot

family who used this configuration for the coat of arms of their family, establishing an indissoluble alliance between the Borromean, Sforza, and Visconti families. However, this figure has been dated at least 2000 years earlier in India and a thousand years earlier in Norway.

If we pass to the category of *braids*, in mathematical terms, it is defined as a collection of curves (the threads) that connect a fixed number of points chosen on two parallel axes. Fixing the points is equivalent to knotting the braid at the ends, to prevent the braided part from "escaping." The wires have a "direction," that is, they always flow from top to bottom, without turning back, and never intersect, that is, they do not pass one inside the other (although they can pass one in front or behind the other). With the notion of braid, we consider time (irreversibility) and movement introduced in a significant way (Fig. 14).

The study of braids has aroused great interest, and there have been many fields in which it has found application: from topology to algebra and in particular to group

**Fig. 12** Whitehead link

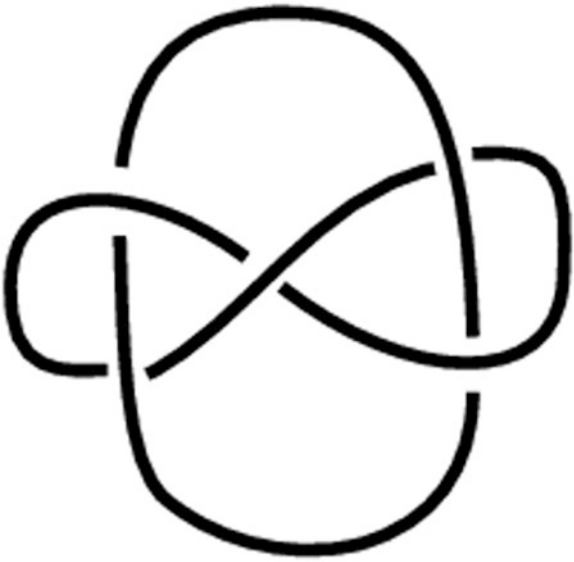
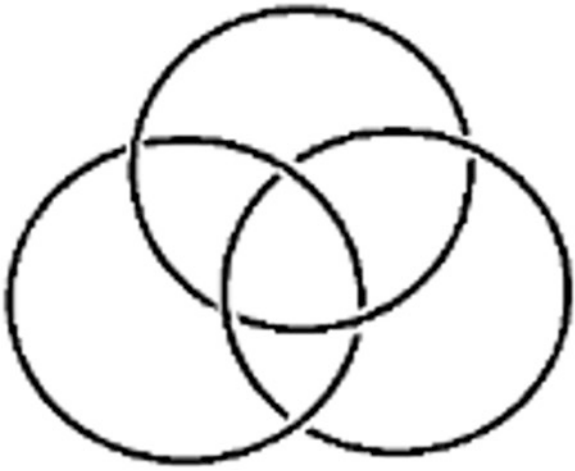


**Fig. 13** Borromeo link



theory, in the study of the algorithms that generate them with applications to cryptography and in systems of safety, from biology (in the study of DNA) to robotics (movement of points in space), up to theoretical physics (as regards the movement of particles and string theory).

There is a close link between braids and knots: the Alexander theorem of 1923 shows that each knot can be traced back to the closure of a braid (but the opposite is not true). One way to go from a braid to a knot is the so-called *closure*, which consists in connecting the upper end of each thread with the lower end of the thread in the corresponding position, using new cords that do not intertwine.

**Fig. 14** A braid

It is interesting to underline that in the topology of knotting the idea of the *complement* of the knot, that is the three-dimensional space surrounding the knot, has had an increasing importance. This represents a possible way of identifying new invariants. In 2002, Gordon demonstrated that for links and their complements, the correspondence is valid only in one direction: the structure of a link determines that of its complement, but the structure of the complement does not uniquely determine the structure of the link.

We also add another interesting aspect. Indeed, it is possible to demonstrate that in a 4-dimensional space every knot can be dissolved (Boi, 2006). This means that in a space with more than three dimensions, the knots dissolve and can return to the most basic form possible, that is, the trivial or simple knot. Then the three-dimensional space represents in some way a specific set of constraints that by limiting the degrees of freedom makes knotting possible. We point out that in fact also the chirality or the mirror symmetry—think of the relationship between the right glove and the left glove—is another fundamental characteristic of objects in the three-dimensional world. This question has a precise importance in the topology of the knots as most of them are also chiral.

Moving on to the field of research in chemistry and biology, it has been possible to show in recent decades how the structure of some amino acids and protein molecules has a nodal structure, tangled on itself (*folding*), or made by assemblies of different chemical rings with a structure chain (real complex links) (Horner et al., 2016). Furthermore, trefoil knot-like structures can be found in many cellular forms, in bacteria, archaea, and eukaryotes.

Obviously, the most sensational and amazing case is provided by DNA, which is an open double strand, but is closed on itself like a knot. DNA can be intricately

folded back into a state that is referred to as *supercoiling*. When it replicates, the two chains of which it is composed separate. This separation occurs thanks to the action of enzymes appropriately called *topoisomerases*, "catalysts of topological isomerism." These enzymes perform the function of modifying the topological structure of DNA by cutting, moving, twisting, and stitching one of the chains of the double helix, or both (Livio, 2011).

If we pass from the "microcosm" to the "macrocosm," we note that the topology of the knots has had interesting repercussions in the development of *string theory* in the field of physics. It proposes a model of quantum reality in which physical space and the particles of matter that vibrate in it are made of "cords" that are knotted continuously—these vibrations would be the basis of "all" forms of matter and all phenomena known physicists. The space of the strings contains up to 11 dimensions, i.e., the four space-time dimensions with the addition of another seven "hidden" dimensions (also called "cylindrical dimensions") that roll up on themselves forming knots or chains of knots. From the perspective of the typological mathematics of this theory, the properties of the physical world arise from the nodal structure of space, called by mathematicians and theoretical physicists "Calabi–Yau space," from the name of the two mathematicians who introduced this idea. In this multidimensional space, the constituent elements are no longer Democritus' "atoms" or Newton's points or even Einstein's, but strings or laces capable of knotting and wrapping around themselves, giving rise to increasingly complex spatial shapes. The transition from one node to another expresses a transition between one state of the universe and another, between one energy level and another, between one form of life and another (Boi, 2012). The physical properties would emerge from the deformations to which a certain type of topological objects—such as cords, cylinders, toruses, loops, and knots—would be subjected in the space of quantum phenomena at the Planck scale. It is noteworthy that the nodal perspective in the study of nature at all its levels contributes to building a dynamic rather than static ontology, an interactive rather than substantial ontology.

## The Semiotic Mediation of the Knot as a Tool for Human Thought and Action: A Cultural Psychology Perspective

The importance of knots in human experience had not escaped the writer and essayist Italo Calvino, who in an article entitled *Ditelo coi Nodi* (*Say it with knots*) written on the occasion of the "Knots and Ligatures" exhibition on Rue Berryer in Paris in 1983, offers interesting suggestions on the art of knotting.

Starting from the numerous works on display in the exhibition, he recalls how knots have always served to remember—even before the creation of writing—(i.e., the Polynesian narrators—*aedi*—used intertwined cords to recite long poems from memory, unraveling different knots between fingers to follow the episodes of the story). The knots also served to count in the Incas civilization with the instrument of

the *quipus*, ropes of various colors with different nodes that were used to take into account the tax payments, to register and measure agricultural production.

> In knots, the intersection of two curves is never an abstract point but is the point at which a rope or a lace or sheet or wire or twine or cord runs, above or below or around itself, or other similar element, as a result of the precise gestures of a large number of trades, from the sailor to the surgeon, from the cobbler to the acrobat, from the mountaineer to the seamstress, from the fisherman to the packer, from the butcher to the basket maker, from the carpet maker to piano tuner, from camper to chair stalker, from woodcutter to lace maker, from bookbinder to racket maker, from executioner to string threader ... the art of making knots, culmination together with mental abstraction and manual—it could be seen as the human characteristic *par excellence*, as much and perhaps even more so than language. (Calvino, 1984, pp. 472, our translation from Italian)

Referring to the perspective of cultural psychology and to the notion of semiotic mediation (Vygotsky, 1978; Valsiner, 2007, 2014, 2021; Valsiner & De Luca Picione, 2017; De Luca Picione, 2021a, b, c, 2020a, b), we can conceive the knot and the practice of knotting as a sign/tool at the service of higher psychic functions and actions within contextual/cultural frames.

It is not a matter of separation between nature and culture; rather, it is about the possibility to enlarge possibilities of human activity by means of the agentive experience of the knotting. Culture constitutes a dynamic process of ongoing mediation of human existence (against an impoverishing perspective of culture as thing or depositary with instructions for the use). Culture as a developmental process provides new forms of flexibility to the human psyche in order to deal with a wide variety of contexts, actions, and human relations. The fundamental characteristic of sign mediation in the human psyche is not that of the mere representation of the world through signs (we could name this as the "hypostatized view of the sign"). Rather, it is a dynamic movement from a structure of signs to another one (namely, a recursive transformation of systems and processes of relations between signs) that enable to a creative and subjective form of experiences.

According to Vygotsky (1978), signs are cultural means of mediation between human lives and their material–symbolic environments. The introduction of the notion of semiotic cultural mediation into psychology implies the passage from a hyper-simplified naturalistic model of human behavior into a cultural-historical-intersubjective model of human practice and development.

The use and interiorization of signs—as tools for the experience—enables the development of the higher psychological functions (Vygotsky, 1978). Therefore, according to the Russian psychologist, the human being acquires new skills, such as that of dominating/controlling behavior from the outside by means of tools that expand his ability to control reality. We have a specific human structure of behavior that distances itself from biological development (in terms of a close stimulus-response relationship) and creates new forms of a culturally founded psychic process (made possible through intersubjective sharing as a *primus movens* toward the subjective development and creativity).

Through this perspective, it becomes possible to highlight further fundamental aspects of the knot's activity. The knot enters the daily life of people and their

communities as an object, a tool, a process that makes possible a series of actions, practices, and tasks that reformulate and rearticulate the relationship with the biological body (its anatomy and its functions), the nature, history, culture, and relationships with other human beings. In terms of semiotic mediation, the knotting became a mediational process that enables human being to add and achieve further purposes. According this perspective, we mean the knot is not the objective in itself; rather, it is a means that expands the range of possible human actions and experiences. Indeed—as we are going to consider by following—the knot, as tool medium, allows you to count and to do the math, to remember, to build habitable places, to embellish the body (braiding the hair and weaving the clothes), to calculate the speed and to consider temporality, to play, to pray, to think and symbolize human relationships (both kinship and friendship; both material with the context and spiritual with creation), etc.

By following we consider some forms in which knotting offers itself as a sign/tool for the human experience. These examples—without claiming to be exhaustive—allow us to pay attention to the semiotic mediation functions of the node.

– *The knot serves to remember.*

Knot is a sign/instrument that culturally develops mnemonic functions. The mnemonic knots used by primitive man had two main functions: (1) numerical, to record dates and numbers; and (2) cultural, to help preserve the memory of songs, stories, genealogies, historical traditions, and religious laws (Day, 1967).

From the simplest form of tying a knot in the handkerchief to remember something, we can reach very complex numbering, calculation, and reporting systems. This is the case of the Incas and Quipu knots, namely coded systems of knots on different cords tied together. The Quipu system is made through a thick rope to which other smaller ropes, 20–50 cm long, are tied with knots. A quipu can contain up to 2000 strings, which can be oriented both upward and downward. The "main" cords are knotted "secondary" cords, as if they were tree branches. The numbers encoded by the nodes depend on the position they occupy along each chord (Boi, 2012). The language of the quipus is very complex and also the color (a string can have one or more colors), the direction of the twisting of the threads that form the string (to the right or to the left). In this way, the quipus work through the combinatorics of many factors: symbolic specificity of the knot, colors, and positions on the ropes (Boi, 2012). Their use is probably connected to the measurement and statistical survey of the state activities of the Incas: census, storage of goods, production of materials, and agricultural crops. Furthermore, the quipus were also used symbolically and ritually as tools to preserve and remember historical dates, tales, and ballads, representations of cosmic and natural cycles, of laws and peace treaties, as instruments of encrypted and secret communication (Boi, 2012; Leone, 2022).

– *The knot as a speed measurement tool.*

The knot is a unit of measurement for speed equivalent to one nautical mile per hour (1.852 km/h). The definition "knot" derives from the ancient system used to measure the speed of boats. From the bridge, a rope was made to slide into the

water, with a certain number of knots placed at a constant distance, and time was measured. Precisely the operation consists in throwing a log from the stern.

The log was formed by a line—a thin rope—at the end of which is tied a wooden float (so-called log) in the shape of a circular sector (a quarter of a circle) plunged into the curved part to make it float perpendicular to the surface of the water and create drag resistance. Knots are regularly placed along the line at a fixed distance of 50 feet 7.6 inches (15.433 m) (Fig. 15).

The calculation of the speed is carried out by two sailors placed at the stern of the boat. One had to throw the line and count how many knots his fingers went through, while another kept time using a 30-second hourglass. Since 15.433 m is 1/120 of a nautical mile, while 30 s is 1/120 of an hour, the count of knots passed between the sailor's fingers in 30 s corresponded to the speed of the ship in nautical miles per hour.

– *The knot as a game.*

The ability to tie and play with twine has always represented a game of skill and concentration in all peoples of the world. Since ancient times, it has been practiced in Asia, the Pacific islands, as well as throughout Europe. You can play alone or with

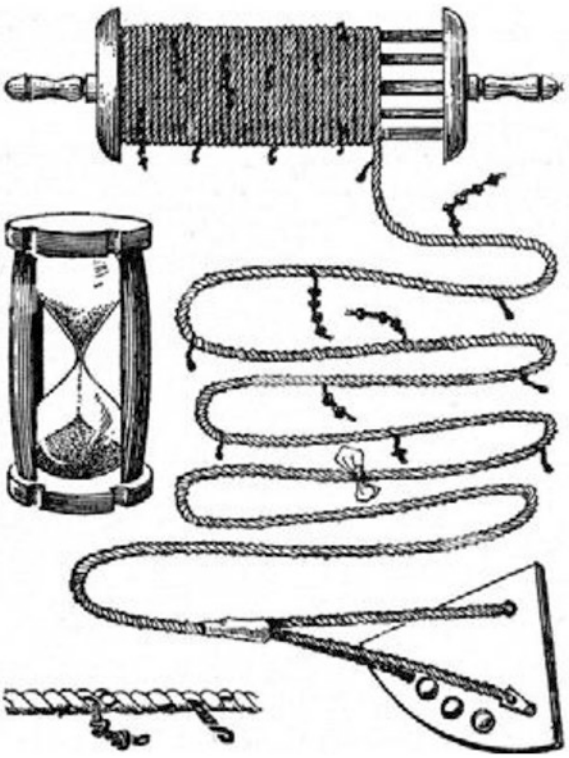


**Fig. 15** Nautical speed measurement

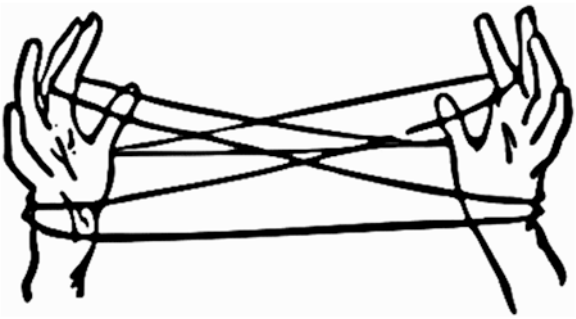


**Fig. 16** A childhood game, between knots and strings

multiple players using your hands and a string. It consists in forming figures by weaving the string around one's fingers. In the variants with more players, each of the participants when it is his turn takes the string from the hands of the previous player with defined moves and manages to obtain a new weave. Some figures have a known name (cradle, mattress, or grill, candles…) (Fig. 16).

The research that Vandendriessche (2015) has carried out on these old and primitive activities is very interesting, showing that they are the result of formal, abstract, and mathematical skills, going beyond prejudice to an obsolete prejudice that children and primitives were unable to perform abstract, rational, and logical thinking (Levy-Brhuel, 1922).

He shows as the string figure-making is a worldwide ancient practice (especially in all those oral tradition communities)[7]. In practical terms, to make a string figure, the player first needs to knot the ends of a one to two-meter-long string, in order to create a loop. The activity then follows in performing a succession of precise operations to the string, by means of fingers (and sometimes by the teeth, wrists, knees, and toes). The purpose of this activity is—by means of specific movements and operations—to get figures and to transform them in different others. "For thousands of years probably, men and women have explored, by manipulating a piece of string, the endless possibilities offered by continuous deformations of a loop of string that mathematicians call trivial knot" (Vandendriessche, 2015, p. 5).

[7] "The first description of some (Eskimo) string figures was published in 1888 by anthropologist Franz Boas (1858–1942) (Boas 1888, pp. 229–230). Two years later, archaeologist and ethnologist Harlan I. Smith published some drawings illustrating the different stages of the making of two string figures known by the Salish Indians in British Colombia (Smith 1900). Cambridge anthropologist Alfred Cort Haddon (1855–1940) was however the first to carry out a significant study on the subject, in collaboration with anthropologist, neurologist and psychiatrist William H. R. Rivers (1864–1922). In 1902, they published a seminal article in which they explained their methodology for collecting string figures. They proved their nomenclature's efficiency by writing down the making of some Melanesian string figures that they had collected in 1898 in the Torres Straits Islands, South Pacific. Thereafter, Haddon published other corpora of string figures from different cultural areas: America (Haddon 1903), South Africa (Haddon 1906), Melanesia (Haddon 1912). […] The first book about string figures was published in 1906 by Caroline Furness Jayne (1873–1909), who compiled ethnographic field notes that some anthropologists had shared with her (Jayne 1962, 1st ed. 1906). (Vandendriessche, 2015, pp. 5–6).

Beyond the documentary scope of his anthropological and ethnographic work, rich of examples and images, an interesting argument of Vandendriessche's thesis is that the creation of string figures can be considered as the result of an intellectual process of organizing elementary operations through genuine "algorithms" (or "procedures"), based on investigations of complex spatial configurations and constantly dealing with concepts of transformation and iteration. Approached in this way, string figures appear to be the product of a mathematical activity (Vandendriessche, 2015, p. 6).

Furthermore, in recent experiment of neuroscience, researchers have showed by means of neuroimaging studies that during the activity of knotting, there are many regions of the brain that are activated and are working (Mason & Just, 2020).

These regions included *spatial-processing* regions (bilateral parietal: inferior, superior, and IPS), *language and executive* regions (bilateral pars triangularis, par opercularis, superior temporal, middle and superior frontal), *motor-processing* regions (pre- and postcentral sulcus and supplementary motor area), *visual-processing* regions (occipital cortex), *object-processing* regions (bilateral inferior temporal and fusiform), and the cerebellum.

Interestingly, they found that at the neural level, the *procedure for tying a knot* is represented as a motor plan, namely a higher order mental structure that goes beyond a linkage between successive steps. Moreover, they state that at the level of the individual knot, the neural signatures were similar for *imagining tying the knot* and *planning the actual tying* (Mason & Just, 2020).

– *The knots for praying*

In many religions, the rosary is used to pray. It consists of a rope with a precise number of knots with a mnemonic and counting function. A rosary consists of a string of knots or beads, aimed at providing an aid to the memory and providing a convenient method for counting the recitations of prayers or the repetition of the names and attributes of the Deity.

As Day states (1967), the rosary probably was originated in Asia and was made with knots, at first, rather than with beads. The Sikhs of India still use a rosary of 108 knots tied in a woolen cord, and the Greek Orthodox monks of Mount Athos use a rosary of 100 knots divided into equal parts by four large beads (Day, 1967, p. 14).

The Rosary as a religious practice allows prayers to enter a meditative and contemplative state through the repetition of a litany. The scrolling of the rosary knots under the fingers becomes an automatic and subliminal activity, thus allowing them not to lose track of where they are in the repetition of prayers, but at the same time that avoids distracting and focusing attention and therefore allows maintaining the meditative altered state. In this case, the knot is perceived as a link between earthly and spiritual experience, as a point of maintaining physicality but also as a means that allows detachment from concrete concerns.

– *Knots as embodied ornaments: hair, hairstyle.*

From a certain point of view, hair can represent an anthropological paradox for the human being. On the one hand, it is considered a body scraps (it grows and is chopped and disposed of, in the same way as other parts of the body such as nails,

spit, feces, and urine); on the other hand, it represents an indissoluble bond with the person, her identity, and her social belonging. Marcel Mauss (1979) said that the techniques of the body are forms of collective and identity recognition, but also models for society, which the individual uses in the process of identification within the group and personal training for its daily life. Indeed, we observe a great attention and care of hairstyling practices, braiding and hairstyles of the hair and beard in all times and in all societies. This is not only a purely aesthetic level but also an ornamental and sublime level of semiotic mediation (Valsiner, 2018).

Anthropology and ethnology have highlighted how hair can be symbolic objects of interest in magical, witchcraft, and malefic rites of all cultures (Frazer, 1890). Particular hairstyles and weaves or loose hair from each knot are required depending on the ceremonies and rituals provided. Van Gennep (1909/2018) identifies the important function of the haircut in funeral rites, in weddings, in initiatory rites for the passage of age or social status, or in all those events that ceremonial the various phases of existence and the transition among these. Similarly, in rites of passage, it is often planned to undo the hairstyle, cut or shave the hair or beard.

In any case, here we want to emphasize not only the function of the hairstyle as a knotting of hair with a symbolic value for the definition of identity, social belonging, status, or the subjective message that the individual wants to communicate. It is also intended to emphasize the embodied and sensual dimensions of a practice/action/ritual, which are an instrument of care, socialization, learning, communication, and sharing during the same act of combing another person. Here too, we can see how the knots take on meaning both as a symbol value and as a concrete activity while it is being unfolded.

– *Knotting ropes, twine, and fibers: the practice of weaving and intertwining.*

The activity of weaving fibers to build houses and tools (baskets, lattices, etc.) and that of weaving fabrics and clothes has represented and represents (although it risks being overshadowed by the mechanized and automated activities of industrial production) an important and universal moment of human cultural and social development. There is no need to report examples to testify this relevance; it is an established fact of anthropological research. However, the general reflections of the anthropologist Tim Ingold (2000) seem very interesting for our purpose to distinguish an activity of producing "making" from an activity of growth by intertwining. They would be profoundly distinct for the basic vision, the ontological assumptions, and the temporal perspective they imply.

In the standard view on the production (namely the making), culture and materials do not mix; rather, culture wraps itself around the universe of material things, shaping and transforming their outward surfaces without ever penetrating their interiority. Thus, the particular surface of every artefact participates in the impenetrable surface of materiality itself as it is enveloped by the cultural imagination (Ingold, 2000, p. 341). You can think about wood, clay, or other material. They are shaped by an outer human activity (an external idealized project that provides a *form* to an unshaped *substance*). According to Ingold (2000), in such a standard view, the form pre-exists in the maker's mind and is simply impressed upon the material.

Yet, as concerning the weaving, this duality is less consistent, and a process of growing is called at stake. Indeed, during the weaving process of a basket, the doer works by following the tensions and the forces of the fibers, and by acting in accordance with local contingencies in a dynamic field of possibilities. As Ingold explains:

> Now I do not deny that the basket-maker may begin work with a pretty clear idea of the form she wishes to create. The actual, concrete form of the basket, however, does not issue from the idea. It rather comes into being through the gradual unfolding of that field of forces set up through the active and sensuous engagement of practitioner and material. This field is neither internal to the material nor internal to the practitioner (hence external to the material); rather, it cuts across the emergent interface between them. Effectively, the form of the basket emerges through a pattern of skilled movement, and it is the rhythmic repetition of that movement that gives rise to the regularity of form. This point was made long ago by Franz Boas, in his classic work on Primitive Art. (Ingold, 2000, p. 342)

In this sense, we can observe that a weaving process (providing a form) occurs by means of a process of growth, i.e., a *morphogenetic field*, which is the total system of relations set up by virtue of the presence of the developing organism in its environment (Ingold, 2000, p. 344; De Luca Picione & Freda, 2016a, b, 2014).

On the light of these considerations, Ingold synthetizes the differences stating that the notion of making, defines an activity purely in terms of its capacity to yield a certain object, whereas the notion of weaving focuses on the character of the process by which that object comes into existence. The weaving implies the embodiment of a rhythmic movement and this turns the relation between idea and movement:

> the movement as truly generative of the object rather than merely revelatory of an object that is already present, in an ideal, conceptual or virtual form, in advance of the process that discloses it. The more that objects are removed from the contexts of life activity in which they are produced and used – the more they appear as static objects of disinterested contemplation (as in museums and galleries) – the more, too, the process disappears or is hidden behind the product, the finished object. (Ingold, 2000, p. 346)

Ingold believes that the weaving embodies human technical activity. Such a view allows us to generalize a number of important aspects of all human activities:

(a) The practitioner operates within a force field created through his engagement with the material.
(b) This work not only implies the mechanical application of external forces but requires care, judgment, and dexterity.
(c) The action has a narrative quality, in the sense that each movement, like each line in a story, rhythmically grows from the previous one and sets the stage for the next.

The making—in the sense of building/producing—ends with the completion of an object in its definitive form, while the weaving allows you to maintain an open dimension, never finished (beyond the individual fabrics). Weaving is best suited to consider the world of our experience, which is born and continually renews itself without end as we move through our environment. It is a question of overcoming the vision of the "inside" and the "outside." Therefore, beyond reductive spatial

schematisms, Ingold believes that the mind is not above, nor nature below. The mind is unfolding in the texture of the surface itself (*in-between*). Living in the world is equivalent to a continuous and temporal intertwining of our lives with each other and with the multiple constituents and lines of force of our environment (Ingold, 2000).

– *Text and context.*

The narration of experience can be contemplated as the texture of language. The reflections just expounded can be extended to the experience of language, narration, and the intertwining stories. It is possible to trace a series of knot topological references in the organizations of our thought and language (De Luca Picione, 2020b; Rigotti, 2021).

We can think of writing as a form of knotting of signs. In fact, writing can be considered from a double topological vertex of knotting: that of the chain and that of weaving.

1. The first vertex interests us for the reference to the "chain of signifiers," the concatenation of signs one after the other which combine to give rise to a process of sensemaking, of modeling, of configuration of the experience that allows to trace one plausible scenario of meaning, predictability, normativity, and creativity (see de Saussure's syntagmatic axis, 1922; Jackobson, 1971; Sebeok & Danesi, 2000; De Luca Picione, 2015; Bruner, 1990).
2. The second vertex reminds us that the etymology of the word text is the Latin *textum*, namely fabric, intertwining. Making a text means weaving words together creating a process of sensemaking (De Luca Picione, 2015, 2020a, b). This calls for the necessary complementarity of the context—cum-*textere*—just as the weaving operation requires a warp and a weft to make the fabric. From here, various implications are possible for our reflection:

   (a) Text is not produced without context, that is, a text always confronts its context, both as a complementary element that helps to produce and organize it (there is a co-construction and interdependency) and as the *frame* that provides the symbolic and intersubjective reference. Context and text continuously and reciprocally contributes to their reading and interpretation.
   (b) The production of the text requires an enunciation function, namely it is a subjective fabric, an *etoffe* (for deepening the Lacanian view, see Vappereau, 1988; De Luca Picione, 2020a, b). The text is the fabric that the subject dresses with; it is a fabric without whom the subject itself does not exist. The writing of a text therefore cannot be absolutely ascribable to an individual mind, totally self-conscious and rational. The semiotic dress is the subjective intertwining of language from which the subject instantiates herself and tells her story to others. On the one hand, it is a narrative *habitus* (remember that the Latin etymology for *habit* returns to the meaning of "wearing a dress") that has been consolidated and fixed through social practice and sharing. On the other hand, the text calls for a narrative texture that is always open to field of future possibilities, of the unexpected, of the unknown, of uncertainty, of otherness, of the uncanny and unfamiliar.

## Psychoanalysis and the Knots

Psychoanalysis has not exempted itself from finding elements of great theoretical and clinical interest in the issue of knotting. In this paragraph, we report some references connected to Freud (1920, 1932), Winnicott (2018), and Lacan (2016) and their references to knotting, weaving, and binding.

With reference to binding and weaving, Freud argues two seminal hypotheses, which will be developed extensively by the continuers of psychoanalysis. On the one hand, we find the story of the "game of the reel" in 1920 in the revolutionary text of "*Beyond the pleasure principle*" (Freud, 1920); on the other hand, we find a reference to a hypothesis of the origin of weaving linked to female sexuality in *Introduction to Psychoanalysis* (Freud, 1932).

In the first speculative strand, Freud (1920) takes up the observation of a playful activity of a small child (probably his grandson) playing with a wooden spool (a reel) around which some thread was wrapped. Holding the thread with one hand, the child threw the reel over his bed, so as to make it disappear from his sight, pronouncing an expressive "o-o-o" (the hypothesis is that the child was saying in his own way, in childish German, "*Fort*!" ("Away"), then pulled the spool out of bed again and greeted its reappearance with a happy expression "*Da*!" ("Here"). The Freudian hypothesis consists in conjecturing a primary capacity for symbolization, which allows the child to bear—without crying and without a terrifying anguish—the fact that the mother was going away to go out, staying away for a few hours. The child would thus repeat through a play experience "*as if*" the painful experience of separation and the rediscovered bond with the mother, also allowing him an active agentive repositioning with respect to the passive dimension of suffering and separation.

This line of thought in some way is also developed later by Winnicott (2018). He recalls the clinical case of a 7-year-old boy with a pervasive and constant concern about tying all household objects together—it should be noted that in an encounter with Winnicott the child had drawn ropes, laces, strings, knots, etc. and in an interview the parents had told of the child's compulsive activity of tying everything up. Winnicott interprets the situation as an attempt of the child to overcome his fear of separation, due to several frustrating experiences of separation from his mother after the birth of his sister and after a period of depression for the mother. Winnicott believed that rope and knotting is a way of "denying separation." In fact, the rope becomes the symbolic precipitate of a sense of insecurity, a threat, and a lack of communication. The clinical intervention was not addressed directly to the child but passed through the preparation of the parents to understand the meaning of knotting and the way to treat this behavior in the family. This training allowed the parents, therefore, being able to reassure the child of their bonds and their affection. That generated a loss of interest in this activity (at a later time during a period of hospitalization of the mother, the child resumed this binding activity but being able family to talk about it he stopped very quickly).

The most formalized and sophisticated use of knot topology in psychoanalysis is undoubtedly in Lacan's theoretical and clinical work (De Luca Picione, 2020b). The topological device of the knots allows Lacan to re-configure in completely innovative ways the articulations between the three registers of the Real, Symbolic, and Imaginary,[8] which he has always proposed as the cornerstones of his psychoanalytical teaching. In Lacan's stringent reflection, the construction of subjectivity takes place through the singular knotting of the three registers. Lacan believes that the knots allow us to present a series of innumerable aspects of human experience, which otherwise would have remained unknown to the formalization of psychoanalysis. Lacan manipulating the knots in an effective and practical way (and using many mathematical and logical notions in an innovative way), shows that the issue at stake is no longer that of *re-presentation* but that of *presentation*. By means of use of knots in psychoanalysis, one passes from to *de-monstrate* toward to *monstrate.*

Lacan's attention focuses not so much on the single closed ring but on the intertwining (so-called links), that is, a multiplicity of tangled knots. Lacan's interest focuses on a link that is very particular due to its characteristics: the cd the *Borromean knot*. It is based on its constitutive property of *triadicity*: it is in fact a chain of links made up of at least three. Each ring overlaps the next one, so the final effect is that they are chained two by two. If only one ring is cut, its unitary and global structure is irretrievably lost. In this particular configuration, no ring has a higher value than the others; they all perform the function of holding the structure together.

Each register (Imaginary, Symbolic, and Real) works as a ring in a Borromean Link. According to Lacan, the construction of subjectivity requires that all three registers of experience be present together, since where they are unrelated or merged/confused, the different forms of psychopathological suffering are realized (Lacan, 2016) (Fig. 17).

The second Freudian speculative hypothesis on the activity of weaving is found in 1932, in the course of Lesson 33 of the Introduction to psychoanalysis. Freud states:

> It seems that women have made few contributions to the discoveries and inventions in the history of civilization; there is, however, one technique which they may have invented—that of *plaiting and weaving*. If that is so, we should be tempted to guess the unconscious

[8] The register of the *Imaginary* pertains to the image and its morphogenetic power of identification and capture, mimesis, deception. It belongs to the ego, to the image of the body invested with libido, to one's fellow man, to illusion.

The *Symbolic* is the register *par excellence* of language, of the Signifier and of its functioning within a differential symbolic cultural system (that is, each signifier is within a symbolic structure, which is based on relationships of difference). It is the register where castration occurs as a symbolic lack and which allows the phallic signifier to order the experience.

The *Real*—unlike reality which is a fiction based on the consensuality of common sense and the mixture between the Symbolic and the Imaginary—is the register of the *impossible*, of what cannot be universalized. The Real deals with what is always posed as absolute singularity, what undermines the Symbolic and its predictability, generating a state of continuous uncertainty, escaping any form of symbolization.

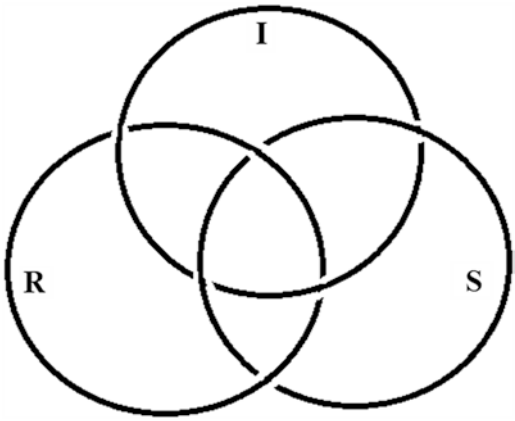



**Fig. 17** Lacan's link of the three registers

> motive for the achievement. Nature herself would seem to have given the model which this achievement imitates by causing the growth at maturity of the pubic hair that conceals the genitals. The step that remained to be taken lay in making the threads adhere to one another, while on the body they stick into the skin and are only matted together. If you reject this idea as fantastic and regard my belief in the influence of the lack of a penis on the configuration of femininity as an idàe fixe, I am of course defenceless. (Freud, 1933, Vol. XXII, p. 132, our italicus)

This perspective, as we have also seen in the various examples of mythology and anthropology reported above, takes up a constant tendency to connect weaving as a practice of female origins. I think it is useful, however, not to reduce the scope of this argument to a hyper-simplification and reductionism linked to simple sexual difference. In fact, there is a need for a leap of abstraction and to bring the question back to an epistemological level, rather than to dwell on an excessively concrete dimension. The question is much broader and pertains to different ways of approaching the question of the finitude of human experience and the localization of sexual enjoyment in the body. The Lacanian reflection about gender and sex is very current, and it invites us to consider the gender as beyond the very sexual difference. Lacan traces the difference between the closed knot and the open braid to grasp a series of interesting implications of a masculine and feminine approach to these questions (therefore not reduced *tout-court* to the biology and anatomy of the human body).

While the closed node is a finite structure with an order already given and defined, the braid is a topological object that allows us to account for the temporality of human experience. The braid allows us to consider the diachronic development starting from the irreversibility of its direction of running direction (there is no going back). Therefore, a braid supposes both the temporal sense of synchrony (the above-below configuration of the threads at a given moment) and the temporal sense of diachrony (the way in which it transforms, modifies, repeats, or renews itself as it flows weather). Lacan, during a lecture on January 15th, 1974, takes up very clearly the masculine and feminine differences in the type of knotting, referring to the masculine closure of the knot (Lacan, 1973–1974).

In accordance with his formulas of sexuation to treat the male and female relationship with respect to the phallic signifier (i.e., a symbolic operator whose psychic function is to tie subjectivity, culture, otherness, and pleasure), Lacan introduces the closed knot on the side of man and of the "logic of the *whole* and of the *exception.*" While he considers the braid, as an open knotting, it refers to femininity with the "logic of absence of exception and not-all" (*pas-tout*). Here, the absence of exception means that there is no general dimension to which to make an exception, but there is only singularity and uniqueness that can be counted one by one.

## Conclusions: *Natura Naturata* and *Natura Naturans* of the Knot

Our excursus on the knot and the practice of knotting allows us to make a series of conceptual observations on the dual nature of the knot: on the one hand, the knot as already given and which holds, binds, unites (but also imprisons, renders in captivity, prevents, hinders); on the other hand, the knot as action, as movement, as ritual practice.

Modeling the human experience starting from the knot-as-already-given means reducing it to the symbolism of the pact, of the union, of the indissoluble bond. This dimension would be quite sterile and static and would prevent any possibility of subjective and collective, historical and cultural development. The knot invites us to be thought of in its ability to knot and unravel, of the movements, operations, and transformations it implies. The node is not a static and immutable object; rather it is the transformative dynamics capable of creating a singularity of the field. In fact—although it is intuitively associated with connection as the creation of continuity—the node is a very process of creating local discontinuity. In fact, it creates a singularity in the field in which it places, generating a multiplicity of elements of difference (spatial, temporal, identity, relational).

The knot arises from a series of non-neutral gestures, operations, and manipulations (incurving, bending, tension, twisting, rotation, winding, contractions, expansion), which set in motion processes capable of modifying the local situation (Boi, 2012). The knot reflects the elasticity, fluidity, and possibilities of change of the world, of the possible worlds, but also of the mind and our perceptions.

A knot can deform space-time, not only because it gives a certain local and global curvature but also because it creates one or more topological singularities in its structure, modifying its shape. It is very important to emphasize this aspect: the knot is the generator of local singularity. Singularity is a specific configuration of a difference that introduces discontinuity in a dimension of continuity. Any difference triggers sensemaking processes of experience (Bateson, 1979; Thom, 1972; De Luca Picione & Freda, 2016a, b; De Luca Picione & Lozzi, 2021). In this regard, the reflection of the mathematician Luciano Boi who has deepened the link between mathematics and art is very interesting:

> The node crystallizes a qualitative discontinuity of space, but this crystallization arises from an underlying continuous process, that is, from a type of immersion of a given space into a larger one. In reality, we are faced with a very general situation, which affects both artistic objects (fabrics, braids, tessellations, etc.) as well as natural and living objects. An abstract statement can be given: when a space is subject to a limitation or an energetic modification (such as wrinkling a shirt, twisting a piece of fabric or twisting a rope around itself). That is to say when it is projected onto something of smaller dimensions, it admits limitation except in a certain number of points (in a neighborhood) where, so to speak, all its primary individuality is concentrated or accumulated. (Boi, 2012, p. 92, our translation)

The anthropologist Küchler highlights how the knot is not the result of a projection of pre-existing concepts; rather, it highlights a complex relational and transformative field that can be discovered simply by doing it and looking at it. She argues that:

> A knot is not referential but synthetic, in relating inextricably the texture of its surface to the logic of binding. Unlike the open mesh of the looped string, the knot does not hint at what lies beneath its surface, but is itself to be discovered beneath its own surface. The knot is all that is to be seen. The knot is the knowledge, a knowledge of the linking of things, material and mental, that may as well exist apart. (Küchler, 2001, p. 71)

In his efforts to formalize human development, the mathematician Kawauchi has concluded that:

> There is no contradiction in considering the human mind as a knot, with its knot type representing the personality at a given time, and a crossing change operation being regarded as a 'mind-change'. A natural extension of modeling one mind as a knot is to model several minds in relationship together as a link of several mind-knots, which we call a mind-link. (Kawauchi, 2013, p. 243)

The cultural anthropologist Tim Ingold for his part states that in addition to the element of topological singularity of the knots, it is also necessary to recognize their ability to create and to develop configurations of order:

> In a world where things are continually coming into being through processes of growth and movement—that is, in a world of life—knotting is the fundamental principle of coherence. It is the way forms are held together and kept in place within what would otherwise be a formless and inchoate flux. This applies as much to forms of knowledge as to material things, whether made like artefacts or grown like organisms (Ingold, 2015, p. 14).

Ingold believes that in modern thought, the heuristic value of the knot and the practice of knotting has been lost, unfortunately in favor of three types of reductive and simplifying metaphors:

1. The *brick* (as an assembled element of structures, the connection between a brick and the other is purely adjacency and external).
2. The *chain* (as a fixed sequence made up of rigid elements or links; it is incapable of functioning if it is not kept in tension and retains no memory. It metaphorizes the rigidity of the linear link causes and effect).
3. The *container* (it has a well-defined interior and exterior).

For Ingold, knotting implies the way in which opposing forces such as tension and friction (which intervene when the knot is tightened) are capable of generating

new forms. The knot induces attention to focus on forces and materials (i.e., on becoming) rather than on form and content (such as idealized assumptions).

According to us, all above arguments and considerations have a strong implication: the knot is a *tout-court* semiotic process of great sophistication.

The activity of the knot is not purely iconic and indexical but is performative and symbolic /triadic. In this sense, knotting has a very high semiotic value. As a sign/tool, it works in terms of semiotic mediation by creating processes of connection between different levels of experience, distancing them from non-reflective immediacy. Knotting allows you to count, remember, measure, temporalize, pray, play, embellish, weave, write, and narrate. This means that through the practice of knotting, human beings intervene in the environment and on their own body, transforming and modifying it. It is a cultural process of semiotic mediation.

The semiotic Massimo Leone invites us to reflect on the cultural sense of the knot:

> But the knot is a semiotic *topos* on an even deeper level, because it constitutes one of the elementary signs with which the human species marks nature. […] To tie something means, in the abstract, to modify the disposition of nature by culture; by permanently coexisting two or more entities inhabiting non-contiguous portions of space and/or time, at least until the node holds. […] These two elementary functions of the knot, that of introducing an intentional sign into the natural environment and that of weaving together otherwise separate entities, establish the deep anthropology of the knot. (Leone, 2022, p. 20, translation from the French original)

The knotting is the fulcrum of semiotic mediation, that is, the connection of experience between several systems of signs. There is both a contingent/local but also a normative/regulatory character in such a semiotic process. In this sense, semiotic activity is a semiotic knotting between body, subjectivity, inter-subjectivity, and culture.

The knot implies the rethinking of the relationship between nature and culture beyond rigid conceptual dualisms. The knotting is a deeply bodily, material, ecological human activity and it is at the same time a relational, ritualized, and formalized activity (a knot cannot succeed if the right sequences and transformations are not respected).

Using the knot as a symbolic reference and as a semiotic device for the development of the psyche has important implications in different areas of psychological reflection. Let us think in terms of the development of a child who in his/her growth process is continuously engaged in unraveling old relational knots and creating new ones. In fact, every growth process involves the ability to separate from past contexts (habits, dependencies as well) and to be capable of new forms of autonomy and responsibility, that is, involving new relational forms and new ties capable of vitality, subjectivity, creativity, and sharing.

Also from a treatment and psychotherapy perspective, the knotting (material and immaterial, cultural, and psychic) is very implied. Think about how psychoanalyst Jacques Lacan believes that the symptom (an expression of one's own discomfort and suffering) can eventually become precisely the form of one's subjective ability to knot oneself to the world, to make bonds with others and to participate creatively.

The symptom passes from being a solipsistic form of individuality (egocentric discomfort) toward an innovative and subjective social bond (namely staying in constructive relations with other). It is not an easy or quick process, but each patients at the end of a successful psychotherapy show the thing that was the source of their discomfort can be transformed into a lighter and more constructive way of connecting herself to the world. The view on the treatment at stake here is not the elimination of the expression of symptom; rather it is its transformation and development in a new knot (not as a constrain or limitation, but as an opportunity and a social bond). Artists are so frequently able to transform their pain or malaise in a creative art. This is a very knotting praxis. Therefore, we often observe the same past being knotted to the future, but with a different weave!

Finally, let us think about the notion of network that seems to characterize the contemporary world. We are all connected within a global system; the World Wide Web is the most obvious expression/symptom of our current times. Thinking about the complexities of the knotting processes and its eternal bivalence and its paradox allows us to consider the contemporary network as a system from which it is impossible to escape (it harnesses us, limits us, blocks us) but also the opportunities to develop new ways of life, new ethical reflections, and socio-political implications (Salvatore et al., 2021).

In conclusion—overcoming a certain commonsensical archetypal symbolism of the knot—we can somehow imagine the activity of knotting as a *semiotic praxis* with a *religious value*, specifying that one of the meanings of the etymology of religion is the Latin *re-ligare* (i.e., to tie together). Through the semiotic praxis of the knot, human experience is capable of distinguishing separate elements and reconnecting them within a new emerging system: from the act of weaving fibers to obtain a basket to the action of telling a story through narrative weaving (a plot), there is always a nodal semiotics in action. The knot is the very expression of becoming and transforming the bond with others and with the environment, with things and with planning. I want to thank the Editor Marc Campill that has recall on this point the spiritual/religious/philosophical notion of *musubi* from the Japanese Shintoism. *Musubi* is understandable as art of bonding through life. Essential is to underline that life is not simply a knot, but a never-ending knotting—represents experience—and meaning-making. His precious reflection is exactly in line with whom my work has aimed to develop: the idea that the knotting praxis is a progressive and ongoing way for the psyche to access to more complex developments. The knotting as dynamic metaphor of the life is a pragmatic and contextual sensemaking process aimed to create new systems of relationship (by a continuous process of construction, development, and destruction of them).

Being disconnected (untied) means being outside the world of relationships, being outside of the knotting of necessity, possibility, and volition.

The practice of knotting constitutes the fulcrum of the semiotic activity of human experience.

## References


Bateson, G. (1979). *Mind and nature*. Dutton.

Boas, F. (1888). The game of cat's cradle. *Int Arch Ethnogr, I*, 229.

Boi, L. (2006). Introduction to the mathematical theory of knots. In J.-P. Françoise, G. Naber, & T. S. Tsun (Eds.), *Encyclopedia of mathematical physics* (pp. 399–406). Elsevier.

Boi, L. (2012). *Pensare l'impossibile: Dialogo infinito tra arte e scienza*. Springer Mailand.

Bruner, J. (1990). *Acts of meaning*. Harvard University Press.

Calvino, I. (1984). Ditelo coi Nodi. In *Collezione di sabbia. Emblemi bizzarri e inquietanti del nostro passato e del nostro futuro gli oggetti raccontano il mondo*. Garzanti.

Dalvit, E. (2012a). Il mondo matematico delle trecce. *Xlatangente, 34*(8), 26–29.

Dalvit, E. (2012b). Il gruppo delle trecce. *Xlatangente, 35*(10), 7–31.

Day, C. L. (1967). *Quipus and witches' knots: The role of the knot in primitive and ancient cultures*. University Press of Kansas.

De Luca Picione, R. (2015). *La Mente come Forma. La Mente come Testo. Un'indagine semiotico-psicologica dei processi di significazione*. Mimesis Edizioni.

De Luca Picione, R. (2020a). *L'impresa topologica di Jacques Lacan. La psicoanalisi tra superfici, confini, buchi e nodi*. Mimesis.

De Luca Picione, R. (2020b). The semiotic paradigm in psychology. A mature weltanschauung for the definition of semiotic mind. *Integrative Psychological and Behavioral Science, 54*(3), 639–650.

De Luca Picione, R. (2021a). Metapsychology of borders: Structures, operations and semiotic dynamics. *European Journal of Psychotherapy & Counselling, 23*(4), 436–467.

De Luca Picione, R. (2021b). Models of semiotic borders in psychology and their implications: From rigidity of separation to topological dynamics of connectivity. *Theory & Psychology, 31*(5), 729–745.

De Luca Picione, R. (2021c). The dynamic nature of the human psyche and its three tenets: Normativity, liminality and resistance. Semiotic advances in direction of modal articulation sensemaking. *Human Arenas, 4*(2), 279–293.

De Luca Picione, R., & Freda, M. F. (2014). Catalysis and morphogenesis: The contextual semiotic configuration of form, function, and fields of experience. In K. R. Cabell & J. Valsiner (Eds.), *The catalyzing mind. Beyond models of causality. Annals of theoretical psychology* (pp. 149–163). Springer. https://doi.org/10.1007/978-1-4614-8821-7_8

De Luca Picione, R., & Freda, M. F. (2016b). Possible use in psychology of threshold concept in order to study sensemaking processes. *Culture & Psychology, 22*(3), 362–375.

De Luca Picione, R., & Lozzi, U. (2021). Uncertainty as a constitutive condition of human experience: Paradoxes and complexity of sensemaking in the face of the crisis and uncertainty. *Subject, Action, & Society: Psychoanalytical Studies and Practices, 1*(2), 14–53.

De Luca Picione, R., & Freda, M. F. (2016a). The processes of meaning making, starting from the morphogenetic theories of Rene´ Thom. *Culture and Psychology, 22*(1), 139–157.

de Saussure, F. (1922). *Cours de linguistique générale*. Edition Payou.

Eliade, M. (1961). The god who binds and the symbolism of knots. In *Images and symbols: Studies in religious symbolism* (pp. 92–124). Princeton.

Fratti, L., Sansoni, U., & Scotti, R. (2010). *Il nodo di Salomone: un simbolo nei millenni*. Ananke.

Frazer, J. G. (1890). *The Golden bough: A study in comparative religion*. Macmillan.

Freud, S. (1920). Beyond the pleasure principle. In *The standard edition of the complete psychological works of Sigmund Freud*, Vol. XVIII. The Hogarth Press.

Freud, S. (1932). New introductory lecture on psychoanalysis. In *The standard edition of the complete psychological works of Sigmund Freud*, Vol. XXII. The Hogarth Press.

Herzfeld, C., & Lestel, D. (2005). Knot tying in great apes: Etho-ethnology of an unusual tool behavior. *Social Science Information, 44*(4), 621–653.

Horner, K. E., Miller, M. A., Steed, J. W., & Sutcliffe, P. M. (2016). Knot theory in modern chemistry. *Chemical Society Reviews, 45*(23), 6432–6448.

Ingold, T. (2000). *The perception of the environment: Essays on livelihood, dwelling and skill*. Routledge.
Ingold, T. (2015). *The life of lines*. Routledge.
Jackobson, R. (1971). *Selected writings*. Berlin: Mouton.
Kawauchi, A. (2013). Mind-knots and mind-relations: Knot theory applied to psychology. In L. Rudolph (Ed.), *Qualitative mathematics for the social sciences: Mathematical models for research on cultural dynamics* (pp. 227–253). Routledge.
Küchler S. (2001). Why knot. Towards a theory of art and mathematics. In *Beyond aesthetics: Essays in memory of Alfred Gell* (pp. 57–71). Berg.
Lacan, J. (1973–1974). *Le Seminaire, Livre XXI. Les non-dupes errant*. Unpublished.
Lacan, J. (2016). *The Sinthome: The Seminar of Jacques Lacan Book XXIII – 1975-1976*. Polity.
Lajos, S. (1996). Il nodo ombelicale. In M. Belpoti & J.-M. Kantor (Eds.), *Nodi* (pp. 90–105). Marcos y Marcos.
Leone, M. (2022). Notes pour une sémiotique du noeud (pp. 19–26). In Jean-François Corpataux (Ed.), *Parerga: Pour Victor I.* Stoichita. Droz.
Lévy-Bruhl, L. (1922/2018). *Primitive mentality*. Routledge.
Livio, M. (2011). *Dio è un matematico*. Rizzoli.
Mason, R. A., & Just, M. A. (2020). Neural representations of procedural knowledge. *Psychological Science, 31*(6), 729–740.
Mauss, M. (1979). Body techniques (1950). In *Sociology and psychology: essays* (pp. 95–123). Routledge.
Odifreddi, P. (2018). *Abbasso Euclide!* Edizioni Mondadori.
Rigotti, F. (2021). *Il filo del pensiero. Tessere, scrivere, pensare.* Salerno: Orthotes.
Sansoni, U. (2010). I nodi delle origini. In L. Fratti, U. Sansoni, & R. Scotti (Eds.), *Il nodo di Salomone: un simbolo nei millenni*. Ananke.
Salvatore, S., De Luca Picione, R., Bochicchio, V., Mannino, G., Langher, V., Pergola, F., Velotti, P., & Venuleo, C. (2021). The affectivization of the public sphere: The contribution of psychoanalysis in understanding and counteracting the current crisis scenarios. *International Journal of Psychoanalysis and Education: Subject, Action & Society, 1*(1), 3–30.
Sebeok, T. A., & Danesi, M. (2000). *The forms of meaning: Modeling systems theory and semiotic analysis*. Walter de Gruyter.
Thom, R. (1972/2018). *Structural stability and morphogenesis: An outline of a general theory of models*. Taylor & Francis.
Valsiner, J. (2007). *Culture in minds and societies: Foundations of cultural psychology*. Sage.
Valsiner, J. (2014). *An invitation to cultural psychology*. Sage.
Valsiner, J. (2018). *Ornamented lives*. IAP.
Valsiner, J. (2021). *General human psychology: Foundations for a science*. Springer.
Valsiner, J., & De Luca Picione, R. (2017). La regolazione dinamica deiprocessi affettivi attraverso la mediazione semiotica. *Rivista Internazionale di Filosofia e Psicologia, 8*(1), 80–109.
Van Gennep, A. (1909/2013). *The rites of passage.* Routledge.
Vandendriessche, E. (2015). *String figures as mathematics?: An anthropological approach to string figure-making in oral tradition societies*. Springer.
Vappereau, J. M. (1988). *Etoffe, Les surfaces topologiques intrinsèques*. Edition Topologie en extension.
Vygotsky, L. S. (1978). *Mind in society*. Harvard University Press.
Winnicott, D. W. (2018). String: A technique of communication (1960). In *The maturational processes and the facilitating environment* (pp. 153–157). Routledge.

# Exploring the "Garden Metaphor": An Inter-Modal Autoethnography


**Teppei Tsuchimoto**

## Introduction

"The meadow is an organic, dynamic and evolving system that inhabits potential to symbolise a multi-dimensional construct as the identity. The meadow is always evolving and has the ability to look similar, to its old form, while changing. Furthermore, the meadow can conserve past experienced plants/flowers, that once flourished but afterword dried out, which dues do not mean that this flower disappeared from the meadow but can re-grow on later times" (Campill, 2021, p.121).

The *identification meadow* metaphor proposed by Campill (2021) is essential to understanding identity as a polyphonic and developmental concept. Instead of regarding identity as a single entity within an individual, this metaphor views identity as a multi-dimensional constellation that is socio-culturally and biologically organised. From this idea was developed the theory of the multiplicity of selves, propounded by James (1980), who theoretically hypothesised *Self* as the empirical self (I) in the stream of experience and as the object constructed by the reflection (ME). Hermans and Kempen (1993) developed James' concept of *Self* as a multi-voiced (polyphonic) spatial movement among the MEs (I-positions).

Notably, Campill (2021) paves the way for exploring psychological phenomena through visuals and poetic modality. The author states that the organic nature of the meadow metaphor renders to visualise alternative understandings of identity (e.g. preservation, adaptation, and compromising as coping strategies). For cultural psychology, visual or poetic modalities are significant ways of understanding the *hyper-generalised affective sign field* overwhelming the human *psyche*, where the deep personal meaning-making takes place (Valsiner et al., 2021). This sign field is too

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complex to verbalise; therefore, poetic modalities are important to explore this field while avoiding hasty categorisation of the verbal account.

## *Metaphors as a Theoretical Tool: Why Organic Metaphor?*

This study deliberately explores the garden metaphor. It attempts to understand the general process that is transferable to others' experiences. For this purpose, an autoethnographic approach will be employed, which involves a deep inquiry of personal meaning-making, while relating the personal experience to the collective culture. Metaphors are fundamentally crucial to our understanding of everyday reality, and knowing the use of metaphors in our concrete experiences provides an invaluable theoretical source.

As developmental-cultural psychologists, we need to recognise the limitations of the machine metaphor, which is implicit and traditionally applied in psychology. In cognitive psychology and elsewhere, the mind and memory have been understood as *computer metaphors* (the mind is the computer, the brain is the computer). Furthermore, extending this understanding, human memory has been considered a network or a process of *encoding, storage, and retrieval*. Instead, memory is constantly reconstructed in the present moment toward the immediate future (Valsiner et al., 2021). The kind of metaphor that regards memory as *something immutable and retrievable when needed* fails to understand the dynamic aspect of memory.

Given that metaphor is an experience of imagination (Christensen & Wagoner, 2015), symbolic resources in machine metaphors are limited in the subsequent sense. First, this metaphor inevitably involves the basic assumption concerning machines: their rational, linear characteristics. Machines are generally thought of as making human tasks more efficient, and in modern times they are evaluated on the basis of efficiency. Second, reducing the complexity of the human psyche to a mechanical-numerical model would disregard many aspects, especially the emotional and aesthetic aspects of human beings. These critical processes for the human psyche are replaced and dominated by the metaphor of *strength* or *magnitude*.

The above limitations of mechanical metaphors highlight the importance of *organic metaphors*, the subject of this volume. We must search for meaningful metaphors to depict and understand the complex universe of the mind, starting from experiences that are deeply meaningful to human beings, yet lie within the horizon of our ordinary life. From this perspective I will explore the metaphor of the *garden*.

## *Autoethnographic Inter-Modal Exploration: Toward Understanding Hyper-Generalised Affective Field*

This chapter conducts an autoethnography to elaborate on Campill's (2021) discussion. Autoethnography is a qualitative research approach in the social sciences (e.g., psychology, anthropology, and sociology) that intends to understand social and

cultural contexts (personal and collective) through a critical reflection of the personal experiences of the researcher (Tsuchimoto & Sato, 2022). Autoethnography effectively uses poetic or visual modalities to understand the researcher's understanding of the self. Therefore, careful consideration of the question, namely, "What dimensions of the phenomenon can be depicted in language and other modalities?" is needed for cultural psychology and autoethnography. For this reason, this chapter aims to elaborate on the methodology using multi-modality to explore the hyper-generalised affective field. Specifically, the current study discusses the possibility of combining the ideas of the Thinking At the Edge (TAE) and the Inter-Modal Pre-Construction (IMPreC).

## The Possibility of Inter-Modal TAE Steps: Understanding the Hyper-Generalised Affective Field

### *Autoethnography*

This study conducted an autoethnography to explore the possibility of combining these two methods, TAE steps and IMPreC, based on the research interests described below. Autoethnography is a qualitative research approach that aims to understand social and cultural contexts (personal and collective) through a critical reflection of personal experiences. According to Adams and Herrmann (2020),

> Autoethnographic projects use selfhood, subjectivity, and personal experience ("auto") to describe, interpret, and represent ("graphy") beliefs, practices, and identities of a group or culture ("ethno") (Adams & Herrmann, 2020, p.2)

Autoethnography seeks to understand the culture related to the researcher's personal experiences. However, most autoethnographic research regards culture as an ontologically given entity. Conversely, culture is regarded as a dynamic and relational process in cultural psychology (Valsiner, 2007, 2014). Tsuchimoto and Sato (2022) introduce an autoethnographic loop model, referring to the scheme proposed by Valsiner (2014) that regards culture as a relating process (Fig. 1). In this model, self-understanding in autoethnography is considered to reflect personal experience through the double-loop process.

Cultural psychological studies using autoethnography are few. However, several approaches have shown the potential to deepen our understanding of the complexity of the human mind. First, some studies address the affective *deep experiencing* processes. Tangene (2017) focuses on the phenomenon of *silence* – emotions that are hard to describe linguistically. The author wrote the autoethnography using diary notes taken on night shifts during an Atlantic sail crossing, as data. Then, in the context of people's life trajectories, Lehmann et al. (2020) reflect collaboratively on the themes of living, aging, and dying. The authors explored these themes collaboratively through interviews and discussions of their experiences. Tsuchimoto (2022) conducted a series of autoethnographic studies concerning career

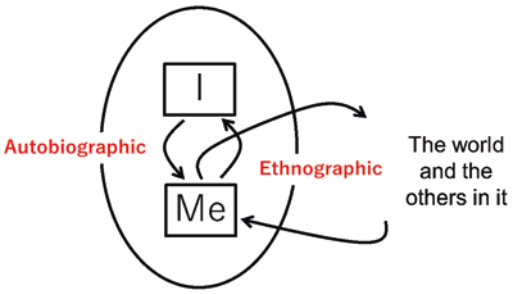


**Fig. 1** Autoethnographic loop model understanding culture as a process of relating. (After Valsiner (2014)'s I <> Me <> THE WORLD scheme)

development as a university student aspiring to become a teacher. The author connected TEM and TAE steps systemically to explore the meaning-making in transitions. Autoethnography is also helpful in exploring everyday experiences. Von Fircks (2021) focuses on leadership and semiotic resources in personally meaningful work-related issues. The author created autoethnography from everyday acts such as a leader giving the workers a banana in the morning.

## *Relating TAE Steps and IMPreC*

This study attempts to connect the TAE steps and the IMPreC. First, the Cultural Psychology of Dynamic Semiosis (CPDS; Valsiner, 2007, 2014), the theoretical assumptions, and the basic scheme of the IMPreC is briefly explained. Second, the method of the TAE steps is explained. Third, this section will focus on the common idea for both the IMPreC and the TAE-*experiencing*. Fourth, the implications of combining the TAE and IMPreC are discussed.

## *IMPreC*

The IMPreC is based on the CPDS, which emphasises sign mediation in the flow of *irreversible time*, whereby people develop. The *sign* is a concept derived from C. S. Peirce and L. S. Vygotsky, but Valsiner later introduced time into this concept. Specifically Valsiner (2004) emphasises the promoter function toward the future. The hyper-generalised affective field is a sign field that overwhelms the psyche. This field guides the orientation of the individual's future actions. Examples of experiences in which hyper-generalised meaning emerges include catharsis experienced during a theatre performance, reading deeply moving poems or prose, or in an interpersonal situation of extreme beauty (Valsiner, 2008).

However, such a sign field is considered difficult to access by language directly because any attempt to verbalise it would be oversimplified. Therefore Valsiner et al. (2021) proposed a class of methods to avoid such over-determination by

language: the IMPreC. This class focuses on the specific affective sign field (hyper-generalised field) and generates products related to it while switching modalities (e.g. poems, drawings, and music). Instead of expressing the hyper-generalised experience directly by language, IMPreC renders the possibility of repeated reproduction from experience by switching to other modalities. The crucial point here is the emergence of a new quality of experience by switching the modalities. In other words, repeated reproduction is not merely a repetition of the same things but a constant *pre-construction* of new qualities in the present toward the future.

## *TAE Steps*

TAE steps provide a systematic way to articulate something that needs to be said in a new way but only emerges as an inchoate "bodily sense" (*felt sense*; Gendlin, 2004). It helps us to verbalise the situation that we feel in our bodies but cannot put into words. Gendlin provides the following examples:

Suppose you are about to fly to another city in a small plane, and your experienced pilot says "I can't explain it. The weather people say all clear, but the look of it gives me some odd sense of doubt..." In such a case you would not tell the pilot to ignore this sense just because it is not clear. Of course, an experienced pilot's unclarity has already taken account of all the clear knowledge that the profession uses, so that what is unclear is something more. And so it is also with any person who is experienced in any field. But such a sense will seem to be beyond words (Gendlin, 2004, p.2).

Suppose you have an oddly gnawing feeling. Then you realize – oh, it's that you forgot something – it's now Monday afternoon – what was it? You don't know, and yet it is there, in that gnawing body-tension. You think of many things you ought to have done today, but no; none of them are "it." How do you know that none of these is what you forgot? The gnawing knows. It won't release. You burrow into this gnawing. Then suddenly – you remember: Yes, someone was waiting for you for lunch. Too late now! This might make you quite tense. But what about the gnawing? That particular tension has eased. The easing is the easing of that gnawing. Its easing is how you know that you have remembered. Remembering is something experienced, and the term "remembered" is used in direct reference to experience (Gendlin, 1995, p.547).

Such felt sense is used daily. However, Gendlin argues that our felt sense is beyond words. According to Gendlin, people can identify (*direct reference*; Gendlin, 1995) a particular experience and objectify it as a felt sense. Once we direct our attention to this felt sense, we can begin to generate some words to refer to the feeling. Furthermore, the implicit complexity of the felt sense is further elaborated by *crossing* other situations and felt senses (Gendlin, 1995). However, as previously mentioned, even if we can feel the felt sense we may not be able to verbalise it easily.

Gendlin regards this situation as a limitation of our *unit model* for understanding the phenomenon. People use a particular *unit model* (based on *pre-existing*

*use-family*) when thinking about some things. Thus, to generate new ideas or describe subjective senses abundantly, we need to generate new terms beyond such unit modals. TAE steps is a concrete method to conduct *speaking from a felt sense*, which distinguishes between the logical and experiential use of terms through moving back and forth between *felt sense* and *logic* (format), and systematically using both of them (Tokumaru, 2011). Simply put, TAE is a way to generate new terms with the help of a logical format to focus on the bodily felt sense of the individuals. There are 14 TAE steps which enhance the process of inner dialog within the individual (Tokumaru, 2011) by its instructions.

## *Experiencing*

IMPreC (or CPDS) and TAE steps have different epistemological perspectives. Still there are some intersectional aspects. Both focus on the relationship between *experiencing* and language. Vasilyuk (1984) explained the term *experiencing* meaningfully in his book "Psychology of Experiencing." There, Gendlin's philosophy and activity theory are juxtaposed:

> For Gendlin, in defining his concept of "experiencing" it is its ontological status that is of primary importance (his indication of the phenomenological "body" of the process), while its functions are of secondary interest (specifically, its function in dealing with personal problems). The process of direct feeling, regardless of what functions it may be performing, can, according to Gendlin, be called "experiencing". But for us, in defining the concept "experiencing" it is its function in coping, in achieving control, which is of primary importance, while its ontological status is secondary. We shall be denoting as "experiencing" any process which brings about resolution of a critical life-situation, irrespective of how that process is directly felt by the individual. Not that we consider this process of direct feeling to be unimportant, it is simply that we are commencing our investigation of "experiencing" not from that phenomenological angle, but from the point of view of function, seeing experiencing as, first and foremost, a special kind of inner working toward the solution of a critical situation. Only later on shall we be posing the question of the phenomenological forms in which the process takes place. From this standpoint even some external act, one single instance of behaviour, can be "experiencing" or a fragment of experiencing, if it performs the function of enabling a person to cope psychologically with a crisis (Vasilyuk, 1984, p.11).

Vasilyuk (1984) aims to construct a theory of the psychological processes whereby a human being copes with critical situations in life (Vasilyuk, 1984). The author uses the term *experiencing* in the sense of Vygotsky's *perezhivanie* (переживание). Perezhivanie is a common name for direct psychological experience (Veresov, 2017). In Russian, "perezhivanie" – a noun from the verb "perezhivat" – going through the life or life events: "to live" + prefix "pere-," which usually means "over, over again", implying overcoming some obstacles (Kayagina, 2020). In summary, both Gendlin and activity theorists focus on how people organise and make sense of the incomprehensible experiences in their life trajectories. Alternatively, this is also a process of creating meaning in a rupture-transition experience (Zittoun, 2006; Zittoun & Gillespie, 2015). Gendlin's ideas could be

combined with cultural psychology in a complementary and organic way to organise the flow of experience.

## *Inter-Modal TAE Steps as a Method of IMPreC: Possibility of Extension*

There is insufficient discussion of transforming experience into other modalities in terms of IMPreC. The process of verbalisation, grasping an experience as a particular unity and translating it into a particular language, is a black box. For example, when turning an experience into a poem, one goes through various processes such as swapping words, making associations, and writing it down. This verbalisation process is often a *hidden process* for researchers, but TAE steps enable it to be put into practice.

Considering that TAE steps use inter-modal language – both poetically and logically – TAE steps have the feature of IMPreC. This feature shows possibility as an approach for exploring hyper-generalised experiences, though TAE steps are not originally a cultural psychology method. Therefore, this study takes the IMPreC perspective to introduce a multi-modal dimension into TAE steps. Since Gendlin focuses on the relationship between language symbols and felt sense, the TAE steps insufficiently consider other modalities.

However, combining other modalities (e.g., pictures, drawings) into TAE steps can reform it for exploring hyper-generalised experiences with the orientation of IMPreC. For this purpose, this study incorporates other modalities except for verbal language in the course of the TAE steps. TAE is divided into three parts: Steps 1–5 (Part1), Steps 6–9 (Part2), and Steps 10–14 (Part3). This study conducts Parts 1 and 2 because they are fundamental parts that relate to verbalising the felt sense. Furthermore, at the end of each part, different modalities (painting and explanation) are blended.

## *The Garden as a Theme*

This study combines TAE and IMPreC as an autoethnography. The subject of this study is the garden because it is an intriguing subject for cultural psychology as identified by the following points:

1. People experience a multitude of modalities in the garden. Moreover, these physical experiences are involved in interpreting the individual or meaning-making process (meta-physical dimension) (Campill, 2021). For example, as children we experience the landscape (sight), the smell of flowers (smell), and the texture of soil (touch). And then after growing up, we may suddenly remember the fragrance of the flowers in the garden from childhood.

2. Meanings of the garden are personal and flexible. People give various meanings to the garden: a place for relaxation, recreation, work, and reading books. This flexibility of the meaning is an exciting aspect of the garden, which is rarely observed in other living spaces (e.g. kitchen, bathroom). Thus, the garden is a *field-like sign* that enables a multiplicity of meaning-making.
3. Traditionally, people give symbolic meanings to gardens, so gardens are socially and historically constructed places. Gardens contain religious ideas (e.g. Japanese Zen Garden), images of paradise (e.g. Persian gardens), and symbols of power (e.g. Garden of Versailles). Gardens have existed since the time of the ancient Greeks; therefore, most people know what a garden is in modern society.
4. Gardening is a process of negotiation between humans and nature in which our imagination toward the future is profoundly involved. For example, we seek to grow plants in good health, imagining a future where we harvest fruit and enjoy flowers. However, plants often do not grow as we imagine. So we need to trim overgrown branches or add fertilisers to make the flowers bloom well, as negotiation.
5. The garden is art. Japanese artist Taro Okamoto (2005) described gardens as "something to be looked at and touched simultaneously, something that is at once static and highly dynamic. It is both natural and anti-natural" (p.147, translated by the author).

## Autoethnography of the Garden

This section describes the process and results of an autoethnography using TAE steps and IMPreC.

### *Dipping Using Photographs (as in Step 6, Part 1)*

The practitioner first focuses on the felt sense (*dipping*; Gendlin, 1995) in TAE steps. This study follows the previous TAE steps works by the authors (Tsuchimoto et al. 2020; Tsuchimoto & Oda, in preparation). Some pictures are prepared as a starting point to expand the image relating to the garden. This step made it easier to focus on the felt sense. In a manner, these pictures are assumed to work similarly to *my sentence* (a kind of poem, tentatively introduced to make the felt sense easier to grasp) in TAE steps as a starting point (Tsuchimoto & Oda, in preparation). The pictures selected are shown later (in the latter part of Step 6; Fig. 3).

This autoethnography was first conducted in Japanese and then translated into English. The author has lived in Japan for many years, so Japanese is an appropriate language for verbalising his felt sense.

### Step 1

Part 1 (Steps 1–5) is the part that grasps the crux of a direct referent (felt sense) as a whole (Tokumaru, 2011). In Step 1, I started the association of the relevant terms while focusing on the felt sense (Table 1).

### Step 2

Step 2 aims to create a tentative *my sentence* expressing the felt sense. As a result, I created the following tentative *my sentence* (Table 2).

### Steps 3–4

Steps 3 and 4 aim to explain how we are using the terms. This usage differs from their ordinary (dictionary) meaning. The steps explain the difference between the dictionary meaning and the felt sense meaning. Here, I compared the dictionary meaning of the words "other" and "fragrance" by deepening the meaning of their felt sense (Table 3).

### Step 5

The goal of Step 5 is to create a sentence (*my sentence*) that expresses the felt sense using the key terms that have emerged so far (Table 4).

**Table 1** Terms generated in Step 1

| |
|---|
| Freedom, fun, play around (while forgetting oneself) |
| If not taken care of, they will fall into disrepair (disaster or our responsibility) |
| The fragrance of the air outside |
| The overwhelming feeling (bonsai trees, the Ginkakuji temple) |
| The feeling of floating on clouds |
| Nostalgia |
| A necessity for me, part of my life |

**Table 2** Tentative *my sentence* (Step 2)

| |
|---|
| This feeling is (an indispensable existence in my life, a place where I can do anything I want [but have the responsibility to take care of it and respect it], a place where I can encounter others through history and time) |

**Table 3** Comparison with dictionary meanings (Step 3–4) (Note: The dictionary meaning here is the meaning of the original Japanese terms)

| |
|---|
| The dictionary meaning "other (他者)": Other things than myself. (goo dictionary: https://dictionary.goo.ne.jp/)<br>Meaning of the felt sense and reflection: We can encounter friends we play with or school teachers and people from the past who existed in our history through knowing the garden's construction and the plant's preferences (for the gardener or owner). When we are lying down in the garden to rest, we are not encountering others, so it may be more of an "encounter with others and fragrances" than a "place to encounter." for me, smells are essential, such as the smell of winter and summer |
| The dictionary meaning of "fragrance (香り)": A good smell; a fragrant beauty, such as a face. (goo dictionary; https://dictionary.goo.ne.jp/)<br>Meaning of the felt sense and reflection: Surprisingly, the latter (in this dictionary meaning) may be closer to my sense. My word "fragrance" is similar to the dictionary meaning *that I perceive beauty from fragrance*, although I had not thought the "face" would be scented. I love the smell of tatami mats, the smell that wafts over me when I sleep outside in the winter, and the smell of Hinoki (Japanese cypress) and hyacinths. The pleasant smell of the outside in spring and summer, the ocean, and the soil when I plant plants. These fragrances make me feel indescribably happy. Maybe this is why walking around with a mask on is not enough for me (I cannot smell) |

**Table 4** *My sentence* (Step 5)

| |
|---|
| This feeling is (like a place where the fragrance of happiness spreads throughout the body, and the encounter with others and time is breathtaking). |

### Inter-Modal Exploration (After Step 5)

After Step 5, I attempted to express these feelings in other modalities based on the IMPreC. First, I drew a painting focusing on the felt sense (Fig. 2). Then, I explained the painting.

## *Explanation of the Painting*

I reflected on two essential aspects of the garden: *the feeling of happiness and relationship with plants and nature that wells up through fragrance and the breathtaking and overwhelming feeling that results from encountering others and history.* I decided to illustrate these aspects of the garden and painted it with the feeling of a place with a good atmosphere for me. It became a vaster place (like a meadow) than the garden. I painted only a few trees because we cannot run around if they are too many. The place also feels like a real place (Awaji-hanasajiki). My garden at home is small, but I want to grow plants and flowers in a more extensive garden. I also painted the mountains because the feeling that wells up when I thought of the mountains in my hometown and my feeling of my grandfather's garden were similar (if I painted the whole shape of the mountain, it would turn into Mt. Sakurajima – the

**Fig. 2** A painting of the felt sense

concrete landscape so I painted parts of it). The hills are covered with flowers and filled with their fragrance. *I could not fully depict the feeling of being overwhelmed.*

So, what is the feeling of *being overwhelmed*? It is *a feeling I can only describe as resembling “What is this?”. It is the feeling of incomprehension.* However, I do not need to know “what this is.” I feel immersed in the situation and overwhelmed. The same situation occurs when I see a fantastic magic show, performance, or movie. I do not need to know the trick; *I simply prefer to be in the Yoin (*余韻*, afterglow) at the time,* like *beautiful* or *unbelievable*. The term “Yoin” may be the keyword. After visiting an art museum or returning from a trip, I feel, “Oh, that was great, that was a wonderful experience.” When I see something genuinely beautiful, I am filled with the very fact that I encountered the situation. I stop thinking about it. I feel goosebumps come from the top of my head to my shoulders from pleasure. A feeling of ecstasy? Being moved? An afterglow?

While these two terms (feeling overwhelmed and of breathtaking) seem different, they seem somehow connected. Moreover, if I were to add other terms, it would be *taking care*, *responsibility*, and *respect*. It differs from these two because they are real-world interactions showing how we relate to plants rather than our feelings about gardens. These terms are also crucial because, like plants, people grow slowly. To nurture a person is to patiently face that person (others) with a sense of change, which gradually develops each day. It is similar to a plant that slowly opens its leaves, one by one, toward the sun.

### Steps 6–7

During Part 2 (Steps 6–9), the felt sense is enriched three-dimensionally by establishing facets and generating a *common organisation* in the felt sense (Tokumaru, 2011). Steps 6 and 7 aim to find universal (general) patterns in the felt sense. In the latter part of Step 6, after *dipping* the feeling from the pictures prepared before Step 1 (Fig. 3), I generate patterns (facets) from the pictures (Fig. 3, Table 5).


**Fig. 3** Patterns generated from pictures (Step 6)

**Table 5** The patterns of the felt sense

| Pattern | Feature A | Feature B |
|---|---|---|
| **P1** | Encountering overwhelming beauty (圧倒的な美と出会い) | Filled with thoughts (思考が充たされる) |
| **P2** | The nostalgia for home (故郷の懐かしさが) | Wells up, emerges (こみ上げる) |
| **P3** | In free space (自由な空間で) | Frolicking in Muga-muchu (無我夢中で遊び回る) |
| **P4** | With the gentle fragrance (おだやかな香りとともに) | Immersed in happiness (幸せに浸る) |
| **P5** | Encounter the past (過去と出会い) | Spending time with others in this place (他者と共に過ごせる場所) |
| **P6** | Taking care is (世話をすることは) | Growing as a human being (人間の成長でもある) |

### Step 8

Step 8 enriches the felt sense by deliberately creating new combinations. Interpreting the artificial, heterogeneous combinations of patterns leads to *crossing*, to verbalising the implicit felt sense in new terms. The two features of the patterns are crossed in a round-robin way. For example, I crossed Feature A in Pattern 1 (encountering overwhelming beauty) and Feature B in Pattern 2 (wells up). In this case, I interpret the new sentence (encountering overwhelming beauty wells up) and write down the interpretation of this sentence and reflection, focusing on the felt sense. This study conducted 30 *crossings* for six patterns—Tables 6, 7, and 8 present examples of *crossing*.

**Table 6** *Crossing* of Pattern 1, Feature A (excerpts)

| | (P1-A) Encountering overwhelming beauty (圧倒的な美と出会い) |
|---|---|
| (P2-B) wells up (こみ上げる) | This is subject to interpretation. For example, if the mountains of my hometown were depicted in a painting, I might experience feelings of "welling up." for me, *something welling up is nostalgia* |
| (P4-B) immersed in happiness (幸せに浸る) | This is valid. *Being fulfilled and immersed in happiness are similar* |
| (P5-B) and spend time with others in this place (他者と共に過ごせる場所) | This is a unique place or situation. When I encounter overwhelming beauty, I am in a relationship only with myself confronting that beauty. *Spending time with others fades far into the background* |

**Table 7** *Crossing* of Pattern 5, Feature A (excerpts)

| | (P5-A) Encounter the past (過去と出会い). |
|---|---|
| (P1-B) filled with thoughts (思考が充たされる) | This is acceptable as well: *Encountering the past, feeling something awe-inspiring, overwhelming. Sometimes thoughts are fulfilled by it* |
| (P2-B) wells up (こみ上げる) | If the "past" I encountered is a family member or someone I love, my eyes may fill with tears. Alternatively, some feelings may emerge related to a painful history |
| (P3-B) frolicking in *Muga-muchu* (無我夢中で遊び回る) | *I realise that those who "frolicking in Muga-muchu" are children.* Perhaps the garden now becomes a place for fulfilment rather than frolicking in Muga-muchu. However, the fulfilled state is also a kind of "Muga-muchu." *when my daughter grows up, she will be able to play around in the garden. I will play with her, too, in Muga-muchu. At that time, I may encounter a history of my parents, who played with me. A garden is also a place where the experiences of generations are handed down.* |
| (P4-B) immersion in happiness (幸せに浸る) | I believe that encountering the past can be a happy thing because *we become aware of what people have handed down through their long history.* I feel this sense when I am raising my daughter. Raising a child is a challenging experience, but there is a history of raising children in the same way from far back in time |
| (P6-B) growth as a human being (人間の成長でもある) | I believe that encountering the past is human growth. To exist without those who lived in the past is impossible. Knowing this is essential for leaving behind a history of our own lives for the next generation. *By growing in this way, we can connect our existence to the next generation* |

**Table 8** *Crossing* of Pattern 6, Feature A (excerpts)

| | (P6-A) Taking care is (世話をすることは). |
|---|---|
| (P1-B) filled with thoughts (思考が充たされる) | Taking care of something can also be considered challenging. It becomes hard when we think of it as a "task" that we do not want to do. Both tasks and taking care have a sense of duty to do, but unlike tasks, *taking care is not an act of responding to someone else's authority* (e.g. watering plants to comply with parents' or teachers' instructions are considered tasks in my term). *Taking care is "unavoidable" for me (the option of not doing it does not exist)* |
| (P2-B) wells up (こみ上げる) | What emerges in taking care of others is the feeling of respect for my parents who have taken care of me. It can be expressed as happiness, thankfulness, respect, etc., *but when we say "well up," something inexpressible emerges.* |
| (P3-B) frolicking in *Muga-muchu* (無我夢中で遊び回る) | Playing in the garden with my daughter might be taking care of her. I feel that *this Muga-muchu experience shares the feature of being "unavoidable."* neither is self-focused in the act of taking care, such as "I" have to do. Instead, it is a sense of having to do it without thinking |
| (P4-B) immersion in happiness (幸せに浸る) | In the light of the above, "taking care" activities and happiness welling up are similar in the sense that *they are both states of Muga-muchu* |
| (P5-B) spending time with others in this place (他者と共に過ごせる場所) | When I spend time with others, I may not think about taking care of them. *When my wife and I take care of my children, we know what needs to be done even if we hardly communicate verbally, which is a kind of Muga-muchu.* The expression "spend time together" refers to doing so at a given time and place in a calm manner. Taking care of someone is not necessarily calm. *I believe that taking care is a process that must continue over a long period* |

Note that Muga-muchu (無我夢中), in the context of this study, is the state of not focusing on oneself. Instead, one focuses on other objects, ourselves, or a particular process in this state. It is important to note that such focusing includes the process of not only getting immersed in one's aesthetic experiences, but generating an affective glow. Although additionally, this term has similarities to the flow experience (Csikszentmihalyi, 1990), defined as being absorbed in an activity.

### Step 9

Step 9 describes the felt sense freely. I arranged the generated key terms spatially by similarity (Fig. 4).

### Inter-Modal Exploration

I attempted to reconstruct the experience in other modalities. First, I draw a painting (Fig. 5), then I explain it.

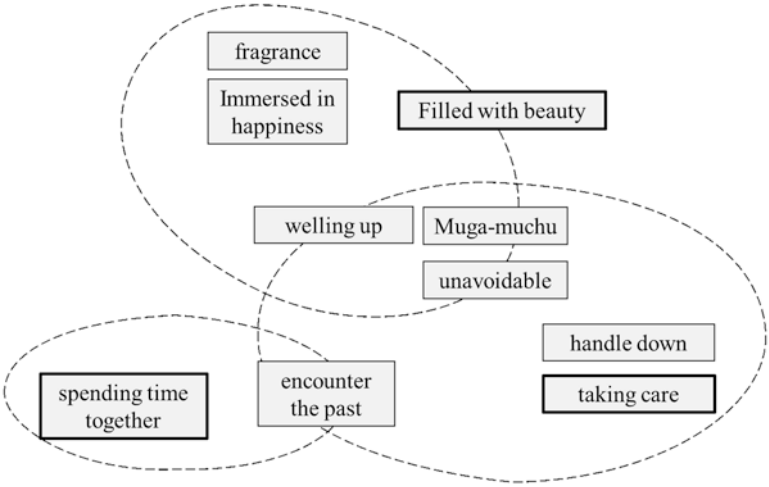


**Fig. 4** Relationship diagram of key terms

**Fig. 5** Painting of the felt sense

## Explanation of the Painting

The feelings of this garden overlap with the image of Murin-an Garden in Kyoto Prefecture and Yousui-en Garden in Wakayama Prefecture. I have visited several Japanese gardens. When I saw these two gardens, I had the impression of *home* or *children frolicking*. This was because I felt that they completely differed from

formal Japanese gardens and resembled places where people could visit, relax, picnic, and spend time freely, in a leisurely manner. The garden setting called Syakkei (借景; borrowed scenery) evokes an image of the mountains of our hometown watching over us.

These gardens are not wilderness. Some foreigners who have seen Japanese gardens may think they are overgrown with trees and lack beauty, but nature in these gardens is well-kept. Only through human care can it maintain its *natural* beauty. It seems that they are trying to achieve something different from the geometric beauty of square-shaped hedges or a European palace. For me, it contains most of the essential elements that I have come to appreciate in my various gardens.

## Conclusion

This study combined IMPreC and TAE steps, promoting dialog within the *self* and a detailed description of the felt sense. First, in the explanation for Fig. 2 (after Step 5), I delineated the two essential perspectives of the garden through reflection on the painting. I deepened the dialog within the self through the feeling of *being overwhelmed*. Second, Fig. 5 is considered to be a *crossing* of multiple felt sense patterns, such as "the nostalgia for home" in Pattern 2, "frolicking in Muga-muchu" in Pattern 3, and "spending time with others in this place" in Pattern 5. In this manner, introducing the inter-modal process into TAE steps promotes the internal dialog and *crossing* the patterns, enriching the implicit complexity of the felt sense.

This study suggests that deliberation about one's garden experience allows us to construct a metaphor that helps understand human development. For example, first, *fragrance* is associated with the aesthetic sensations experienced from the various scents in everyday life (Table 3). Second, the term *taking care* refers to the garden as generated in Step 1. Yet it also functions as a metaphor for understanding human growth in the explanation of Fig. 5. Finally, Marlin (2020) emphasises that a garden is a relationship between the individual and the human groups in their milieu. In this place, the interaction between the human body and the social body within the milieu is played in a primordial format, pointing out that the garden is an essential metaphor for human life. This study concretely demonstrates the potential of the garden metaphor for human growth and care.

Yoin (afterglow) verbalised in this study is one of the organic metaphors that emerge from the relationship between gardens and an individual (the author). Furthermore, this feeling refers to the intentionality of being in the specific experiencing process that contains an affective glow. This meta-physical process involves one's subjective "extended duration" (Valsiner, 2014) in time. Thus, Yoin is a hypergeneralised process that the subject wants to *feel into* (*Einfühlung*; Valsiner, 2014) a particular environment ranging from encountering a beautiful garden, landscape or sunset, to other aesthetic experiences.

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## Dialogue: Organic Metaphors Start With our Daily Experiences

**Teppei Tsuchimoto**

## Keywords

Autoethnography; Metaphor; Garden

Among the critical studies that have advanced the discussion on metaphors is Lakoff and Johnson’s (1980) cognitive linguistic work (Cornejo et al. 2013; Christensen & Wagoner, 2015). Lakoff and Johnson (1980) emphasise that metaphors have a physical basis, are “conceptual” in structure, and define people’s thought processes. For example, “feeling blue” corresponds to the conceptual metaphor of seeing the mind as a “colour”. Similarly, in the example “keep in mind”, the mind is considered as something both inside and outside. For Lakoff and Johnson (1980), metaphors are not just linguistic expressions but systematically conceptualised and structured thoughts (Christensen & Wagoner, 2015). This view has interesting implications for cultural psychology as it suggests there is a relationship between the body, language, and thought. However, Lakoff and Johnson (1980) employ narrow premises regarding the underlying structure of metaphors as static and logical (Cornejo et al., 2013).

## The Subjective-Cultural-Holistic Metaphor Approach

Contrary to Lakoff and Johnson’s (1980) approach suggesting that metaphors have a logical structure, Cornejo et al. (2013), based on Werner (1919), propose a psychological approach to metaphors. They propose an approach that does not examine metaphors through segmenting them into different words or concepts, but rather by describing the experience [Erlebnis] of using the metaphor, focusing on the person’s subjective attitude, such as their feelings, and considering what people experience when they hear, read, and use the metaphor. According to Cornejo et al. (2013), the psychological approach to metaphor focuses on *subjectively felt experience, not its external description. While semantics depicts the structure of incongruence implied*

*in metaphor, the job of psychology is to describe the experience of this incongruence* (Cornejo, Olivares & Rojas, 2013, p.487).

Christensen and Wagoner (2015) acknowledge the significance of the psychological approach to metaphors as per Cornejo et al. (2013), but make some modifications from a cultural psychology perspective. In particular, the authors argue that subjective analysis alone is insufficient to understand people's use of metaphors and that a sociocultural perspective should be considered.

> *the function of the use of a metaphor cannot be understood from analysing just the inner world of the person or just his sociocultural environment, but always the relation of the two at the given time for a specific purpose* (Christensen & Wagoner, 2015, p.517).

## Organic Metaphors and Autoethnography

The subjective-cultural-holistic metaphor approach resonates with an autoethnographic orientation. Here, I would like to address the significance of using an organic metaphor for autoethnography. An autoethnographer takes individuals' process of experiencing as a starting point and describes individuals' experiences in a particular way. They can confront the complexities of the process of experiencing. Therefore, it is necessary to use organic metaphors to amply depict the inherently unique and dynamic process of experiencing. As an example, Tsuchimoto et al. (2020) represented 'good career support' for career development through a "table tennis rally metaphor" in their autoethnography using thinking at the edge (TAE) steps. This metaphor was created to encompass the first author's subjective understanding of 'good career support', increasing readers' understanding of the authors' meaning. It is based on the first author's physical experience as a table tennis player. The "table tennis rally metaphor" can be summarised as follows:

Good career support is like a table tennis rally. The "goal" of the supporter/supported person is the table tennis ball, and after "receiving" the ball through the softness of a table tennis rubber, the ball is returned to others. In the rally, the supporter and supported person's goals are "connected" and "sincerely" reflected to others. Being "aware" of one's goals as we follow the ball's movement is essential for "growth".

The metaphor is generative in its connecting of several aspects of the described metaphor (table tennis rally) and actual reality (career support and development). The table tennis rally's elements (rackets and balls) are certainly non-organic. However, intentionality, such as the "sense of receiving the ball" and the "sincere relationships with other players" involved in table tennis rallies as an activity, contain organic aspects. Thus, a person's intentionality toward a particular activity can be an organic metaphor. This perspective leads to the elaboration to the following question presented in the main chapter:

*I would like to ask you to elaborate if it would not be possible to see autoethnographic material already as an instance of organic metaphorical use and resource for material collection – more metaphors.*

I would say "Yes" to seeing autoethnographic material as a resource for organic metaphor production. Suppose that an artist who has created numerous works has found the solution "art is walking" in their autoethnographic process. This metaphor is actualised because they found some meaningful relationship between "walking" and "art". For them, both "walking" and "art" are already pleromatised, meaning this metaphor is closely connected to their life. In other words, this metaphor is not a conceptual association. Crucially, the richness of the metaphor lies in the organic connection between a person's personal experience and the metaphor.

In the main chapter, I explore the "garden" metaphor as a starting point to explore experiences that are deeply meaningful to people which lie on the bedrock of people's daily lives. Similarly, most autoethnographers attempt the poetic exploration of personally meaningful locations and objects. Music, narrative, and gardens, which are everyday experiences, can be a rich source of metaphors for understanding the human mind. The intentional and creative generation of metaphors can relativise our "normal" and create a new alternative understanding of reality. Organic metaphors start with our daily experiences.

## References

Christensen, T. S., & Wagoner, B. (2015). Towards a cultural psychology of metaphor: A holistic-development study of metaphor use in an institutional context. *Culture & Psychology*, *21*(4), 515–531.

Cornejo, C., Olivares, H., & Rojas, P. (2013). The physiognomic and the geometrical apprehensions of metaphor. *Culture & Psychology*, *19*(4), 484–505.

Lakoff, G., & Johnson, M. (2008). *Metaphors we live by*. University of Chicago press.

Tsuchimoto, T., Oda, Y., and Sato, T. (2020). The Felt Sense of "Good Career Support" Engendering Moments of Growth: Theory Building by TAE Steps. *Japanese Journal of Qualitative Psychology*, 19, 46–67. [in Japanese]

Werner, H. (1919). *Die Ursprünge der Metapher*. Leipzig, Germany: Wilhelm Engelmann.

## References

Adams, T. E., & Herrmann, A. F. (2020). Expanding our autoethnographic future. *Journal of Autoethnography, 1*(1), 1–8.

Campill, M. A. (2021). Towards a Wholistic model of identity: Why not a meadow? *Integrative Psychological and Behavioral Science., 55*, 112–127. https://doi.org/10.1007/s12124-020-09588-3

Christensen, T. S., & Wagoner, B. (2015). Towards a cultural psychology of metaphor: A holistic-development study of metaphor use in an institutional context. *Culture & Psychology, 21*(4), 515–531.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.

Gendlin, E. T. (1995). Crossing and dipping: Some terms for approaching the interface between natural understanding and logical formulation. *Minds and Machines: Journal for Artificial Intelligence, Philosophy and Cognitive Science, 5*(4), 547–560. https://doi.org/10.1007/BF00974985. Accessed May 2022.

Gendlin, E. T. (2004). Introduction to "thinking at the edge". *The Folio, 19*(1), 1–8. http://previous.focusing.org/gendlin/docs/gol_2160.html. Accessed May 2022.

Hermans, H. J. M., & Kempen, H. J. G. (1993). *The dialogical self: Meaning as movement*. Academic Press.

James, W. (1890). *The principles of psychology*. H. Holt and Company.

Kayagina, T. (2020). Existential aspects of experiencing. In M. Bazzano (Ed.), *Re-visioning existential therapy: Counter-traditional perspectives* (1st ed.). Routledge.

Lehmann, O. V., Hansen, M., & Hurme, H. (2020). This is the real "death-line" AND I am still alive: A collaborative reflexivity about life trajectories. *Culture and Psychology, 26*(4), 819–836. https://doi.org/10.1177/1354067X20922132

Marlin, C. (2020). The geographical meaning of the "individual" garden and its relation to the landscape – A Japanese detour: The garden experience as an act of enunciation. *Projets de paysage, 23*, 1–25. https://journals.openedition.org/paysage/12838. [in French and Japanese]

Okamoto, T. (2005). *Japanese tradition*. Kobunsha. (岡本太郎. (2005). 日本の伝統. 光文社.) [in Japanese].

TaeJapan. (2015). What is TAE? From: http://www.taejapan.org/english/what_tae.html. Accessed May 2022.

Tangene, C. (2017). The silence of the ocean: Affective self-dialogue on a sailing night-shift. In O. Lehmann & J. Valsiner (Eds.), *Deep experiencing: Dialogues within the self* (pp. 39–50). Springer.

Tokumaru, S. (2011). *Qualitative research with TAE steps*. Keisuisha.

Tsuchimoto, T. (2022). *Autoethnography of career support in transition*. Nakanishiya. (土元哲平. 転機におけるキャリア支援のオートエスノグラフィー. ナカニシヤ出版.)[in Japanese].

Tsuchimoto & Sato (2022). Career decision-making as dynamic semiosis: Autoethnographic trajectory equifinality modeling. *Culture & Psychology*, Online first. https://doi.org/10.1177/1354067X221140609

Tsuchimoto, T. & Oda, Y. (in preparation). "Speaking-from the Felt Sense" experiencing for qualitative research education: An example of practice by creating a "garden poem" while using the TAE steps. （土元哲平・小田友理恵. 質的研究教育のための「フェルトセンスから語る」体験: TAEステップを用いて「庭の詩」を作成する実習を例として）[in Japanese].

Valsiner, J. (2004). The promoter sign: Developmental transformation within the structure of dialogical self. Paper presented at the biennial meeting of the International Society for the Study of behavioral development (ISSBD).

Valsiner, J. (2007). Culture in minds and societies: Foundations of cultural psychology. SAGE.

Valsiner, J. (2008). Ornamented worlds and textures of feeling: The power of abundance. *Outlines Critical Practice Studies, 10*(1), 67–78. https://doi.org/10.7146/ocps.v10i1.1967

Valsiner, J. (2014). *An invitation to cultural psychology*. SAGE.

Valsiner, J., Tsuchimoto, T., Ozawa, I., Chen, X., & Horie, K. (2021). The inter-modal preconstruction Method (IMPreC): Exploring Hyper-Generalization. *Human Arenas*. https://doi.org/10.1007/s42087-021-00237-8

Vasilyuk, F. E. (1984). *The psychology of experiencing: The resolution of Life's critical situations*. Progress Publishers.

Veresov, N. (2017). The concept of Perezhivanie in cultural-historical theory: Content and contexts. In M. Fleer, F. González Rey, & N. Veresov (Eds.), *Perezhivanie, emotions and subjectivity: Advancing Vygotsky's legacy*. Springer. https://doi.org/10.1007/978-981-10-4534-9_3
von Fircks, E. F. (2021). Cultural resources for leadership: When a banana is more than a banana. *Human Arenas*, 1. https://doi.org/10.1007/s42087-021-00231-0
Vygotsky, L. S. (1965/1971). *The psychology of art*. MIT Press.
Zittoun, T. (2006). *Transitions: Symbolic resources in development*. Information Age Publishing.
Zittoun, T., & Gillespie, A. (2015). *Imagination in human and cultural development*. Routledge.

# The Role of Metaphors in Model-Building Within the Sciences of Meaning


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## Introduction

Solidifying our understanding of science seldom takes the shape of a unified field. Underlying conditions may or may not be relevant drivers for building metatheoretical understandings of how we operate when dealing with questions of scientific compatibility. That is, in different areas of research there may be important methodological and explanatory assets that may not always be compatible across disciplines, but these disciplines may have a certain core of ideas that make them, if anything, related.

This chapter will attempt to develop the notion of the *sciences of meaning* taking into account the current developments in naturalized attempts at understanding *meaning* as a biological function. Meaning is an interesting area of research in that it lies at the boundaries between the quantifiable and the more scientifically objectionable subjective world. As we become more involved with trying to understand just how it is possible for the world to be meaningful, we see the intermingling between the sciences and the humanities as a desirable, yet constrained outcome in our theory-building activities. We want to be able to converse through both poles of research, but in order to do so without misconceptions about the technicalities brought to the table by both, we need to be aware of the nuances that come up when building theories about meaning.

In understanding how metaphor interacts with the construction of theories, and thus model-building, we may expect metaphor to establish relations between a scientific language and an object of study. More generally, we may see metaphor as a way of thinking, a mapping of disconnected domains (Lakoff, 2006 [1993], 185), or invoking salient properties across objects predicating complex content (Camp,

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M. A. Campill (ed.), *Re-Inventing Organic Metaphors for the Social Sciences*,
Theory and History in the Human and Social Sciences,
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2006, 4). These accounts are markedly opposed to the idea that metaphor is a proposition-setting mechanism in language (Lepore & Stone, 2010). The way we will work with metaphor will thus depend on seeing metaphor as cognitively based and capable of constituting elements in theory-building (Rodríguez Higuera, 2018).

First, we will focus on what the connections are between the sciences and the humanities with regards to biological meaning, and how disciplinary structures—namely, the conditions in which research becomes available and spread—partake in the constitution of findings of relevance for specific areas of knowledge. The main focus here is the field of *biosemiotics*, but in order to flesh out how *meaning*, in any form, can be understood in a discipline, we need to see the connections between related fields, including more general areas of semiotics (*qua* humanities) as well as the opposite side of the spectrum in terms of methodology and scientific outlook. We will then flesh out how metaphors become a centerpiece in the building of theories within this particular field of research, from which we will derive some conclusions regarding the status of metaphors in theory building within interdisciplinary endeavors.

## The Semiotics of Meaning

Meaning comes in multiple flavors. We "mean" things when we display resolution, but we also try to find meaning in our day to day events. We ask "but what does it mean?" about movies and novels we may not really understand, and when we are caught in a situation we cannot cope with, we hope to find some meaning to it in the end. We say things and hope our meaning is "caught", and sometimes, in return, we are asked, "well, what do you mean by that?" Meaning is, after all, perhaps one of the keys to understand the human experience, but, as many of the topics that circle around the subjective qualities of perception, the way we understand it is a fairly complex affair. Avenues for pondering about just what meaning is supposed to be range from different branches of philosophy, ranging from ontology (Putnam, 1975) to epistemology and philosophy of mind (Overton & Palermo, 1994) to the basis of language analysis (Ogden & Richards, 1930) and its later influence in logical positivism, to name only some peaks in the map of involved research. Meaning is a tricky word too. In context it may refer to specific linguistic forms or practices, but in other contexts it may refer to conceptual schemes in cognitive infrastructure. In some cases, *meaning* may refer to more abstract notions regarding value and ethics, and so in trying to understand just how we want to work with meaning, conceptually speaking, depends on what the baseline for meaning is in our definitions.

Building from a linguistic understanding of reference, mental concepts and behavioral responses, semiotics presents itself as a potentially robust standpoint to deal with an increasingly complex sense of meaning. In order to first understand how we can study meaning then, we need to understand how exactly a semiotic understanding of meaning works. Briefly though, semiotics as a field is divided in multiple branches, but the main common thread that unites them is the idea that

whatever is expressed is understood through *signs*. What signs are exactly is up for debate, but the most common line dividing semiotic scholarship marks a sharp division between dyadic and triadic signs, namely, signs that either map to a content/expression pair or to an object/vehicle/reaction relation. The first kind of signs, in the Saussurean vein, are historically derived from the phonetic and conceptual connection of referential language. In its extension, this kind of sign enables the analysis of significant units in cultural communication without relying on linguistic expression, but depending on a conceptual apparatus to actualize the plane of non-linguistic expression, as for instance in Barthes (1997). The second kind of signs is commonplace in Peircean accounts of semiotics. These signs represent the agential relation given in the perception of an object and the results of its reception. This kind of sign has become synonymous with current semiotics and with good reason. Semiotics, in its more general fashion, studies processes where signs can be theorized as essential in one way or another for the communication of a living being, and perhaps even its own survival. The echoes of the landmark *A Theory of Semiotics* (Eco, 1976), espousing the virtues of an abstract, non-psychological sign to account for meaning is felt even now in the wide usage of Peircean models of the sign to investigate meaning (Nöth, 2000; Proni, 2015).

What is not clear from this exceedingly brief overview is what meaning is supposed to be and why picking semiotics is a good choice to deal with whatever kind of meaning it aims to talk about. In what follows, we will look at how semiotic meaning is, however, derived from semantics and, as such, it provides us with a more specific ground to talk about meaning in a wider, yet specific sense.

## *From Semantics to Semiotics*

Saussure's theory of the sign implies that for a linguistic expression to be meaningful, it must be paired to some sort of reference, or rather, for some expression to be linguistic, it must constitute a pair of expression and reference. However, this notion of sign must be paired to a wider contextual aspect in which meaning can be built upon smaller blocks—this is a central notion of the so-called structural semantics, where the systematical constitution of language is one of the determining factors of linguistic meaning (Matthews, 2001, 118). But semiotics, for what it's worth, is not semantics, and so we may surmise a difference in the treatment of meaning that ranges from methods to objects of study altogether.[1]

As far as similarities go, it would seem that the connection between semiotics and semantics is given to us via the assumption that meaning is similarly effective in linguistic and non-linguistic signs. Semiotics is, in some ways, the expansion of a linguistic view of meaning into a more general, pre-linguistic system of

[1] Semantics may indeed mean many things to many different people, including cognitive scientists and philosophers (Fodor & Lepore, 2012). Our main task here is simply differentiating it from semiotics, so we will skip the question of the empirical or formal status of semantics.

signification, at least when it comes to the history of semiotics as an offshoot of linguistics (Sebeok, 1991, 132). This points then to the main conceptual difference between semantics and semiotics, that is, the former refers to verbal meaning and the latter as an expansion of similar mechanisms without linguistic implication (Weinreich, 1980). At least in terms of the nature of the object of study of both semantics and semiotics, the former takes a more specific area of research that becomes expanded to different significative phenomena in the latter. Semiotics encompasses then meaning not only as a linguistic phenomenon, but also as a pre-linguistic, perceptual and *sign-like* kind of object. The notion of sign then becomes inextricably tied to a wider sense of meaning that semantics as a linguistic endeavor does not reflect properly in comparison to the idea of *semiotic meaning* (Ricoeur, 1975).[2]

The general sign that has emerged from the Peircean bent of current semiotics presents a different kind of panorama when it comes to characterizing meaning. The strength of this particular triadic sign lies in that it removes the need for a linguistic-conceptual apparatus altogether by appealing to the reaction that happens upon the perception of the object in the sign. In here, meaning is more of a self-perpetuating condition that requires the existence of previous meanings (Kull, 2002). A general sign can imply some form of meaning from non-linguistic cultural expressions in the same way that they can imply meaning from perceptual or even biological processes.

We saw earlier how a semiotic kind of meaning transcends linguistic expression in some ways. The formal extension of this thinking starts with considering meaning for non-linguistic animals. Whatever methods for *understanding* meaning that semiotics develops should, in theory, be applicable to how non-linguistic animals are capable of perceiving and developing meaning themselves. The implication here is that whatever mechanisms humans have for acquiring and developing meaning are present in other living beings, at least to some degree. Zoosemiotics is a natural result of thinking about the generality of signs (Sebeok, 1968), and this in turn opens up the way to examining more general biological processes under the guise of signification (Kull, 2003). Zoosemiotics, as a branch of semiotics, uses semiotic concepts to analyze communication in non-linguistic animals. Drawing from ethology, animal psychology and ecology, zoosemiotics assumes meaning-making as an essential characteristic of animal life (Maran et al., 2016a, b, 11). Zoosemioticians analyze the sign relations established by animal groups, such as how cats interact with each other and establish certain cooperative rituals (Jaroš, 2017); they try to describe and understand how animals perceive and *feel* the world (Tønnessen, 2015); or even more practical research trying to understand how rats and animals interact with each other in urban settings (Delahaye, 2021).

The constant extension of the territory of semiotics, however, builds new stipulations regarding the status of signification that sometimes become hard to make

[2] This view is, however, underdeveloped and calls for a deeper study in terms of the Saussurean heritage of both current semiotics and semantics (Paolucci, 2012).

compatible with previous accounts of what signification has been conventionally deemed as.

## *Rethinking Meaning in Biosemiotics*

If at least some of the mechanisms through which meaning is conveyed are shared across species as the extension of semiotics seems to indicate, then one place to look for those mechanisms is in the shared evolutionary history of organisms at large. But this turns the philosophical and linguistic research that has characterized semiotics so far into an exploration about what is possible to research through a biological framework. This, by itself, calls for the naturalization of semiotic concepts, but in practice, it generally means adapting semiotic thought to concepts in biology and finding where exactly the latter is lacking (Hoffmeyer, 2011).

Biosemiotics is a partial redefinition of what it means for semiotics to *be* semiotics as well, because it tries to cover semiotic phenomena to its limits (Kull, 2009) and investigate the origin of semiotic phenomena itself (Queiroz & El-Hani, 2006). It is in this vein that semiotics becomes conditionally a different kind of discipline, mixing scientific approaches and philosophical ways of pondering to develop theories about meaning. Biosemiotics represents an overarching effort to find how meaning is essentially a function of biology that becomes more complex in conjunction with the complexity of organisms (Hoffmeyer, 2007). By turning biosemiotics into the basis for even talking about semiotics, the field reconfigures its theories to fit the notion of a biological approach to meaning. The involvement of different kinds of research—biology in this case—makes the construction of theory a different endeavor altogether. In fact, biosemiotics may eventually find *meaning* not to be related to signs, but to other mechanisms that appear related to the theory of semiotics. These mechanisms may instead be related to system-wide interactions, code-pairings or even a phenomenological understanding of organisms. Codes, texts and Umwelts may not be contingent upon signs as a main directrix of biosemiotic theory and may all be treated as theoretical radicals to explain meaning as an organic phenomenon.

Approaching the apparent failures of biology in regards to either meaning or agency is, however, not exclusive to the evolutionary history of semiotics. Multiple independent approaches may find themselves in harmony with these novel biosemiotic premises, and they may draw from and add to the interdisciplinary nature of the field. From physics (Kauffman, 2015; Pattee, 2012) to gene biology (Barbieri, 2008), the increasing interaction between disciplines makes theory building much more complex and divisive, to the point that the elements present in biosemiotics may not be fully compatible with the elements that come in apparently compatible approaches (Barbieri, 2014). Yet, the similarity of at least some principles and the general gist of their aims—approaching the elusive biological *meaning* that we have mentioned before—makes for a complex situation in terms of the tools and theoretical aims of different fields that try to *explain meaning*. In what follows we will

propose a brief solution to this problem in order to examine how explanations at such a level utilize metaphors and the role they fulfill in bridging the different areas of research involved in them.

## *The Sciences of Meaning*

As biosemiotics grows into a more developed discipline that retraces the landscape of semiotics, so other similar ways of looking at meaning that have become intermingled with it develop different theories about what is important when describing and comprehending meaningful phenomena. Biosemiotics may argue that life is rooted in "a process of active interpretation by hereditary signs (both genetic and epigenetic) in the context of other signs that come from the parts of the body and the environment" (Sharov & Kull, 2022, 149). However, in criticizing this view we find assertions that state that "organic meaning is produced by coding, not interpretation" (Barbieri, 2014, 242), which would set a diametrical opposition at the foundation of the theory of biosemiotics. Nominally speaking, these become two different research programs, biosemiotics and code biology, that lack methodological unity with each other and find themselves at odds in terms of theory. They do share a general gist of what they think is important to research, namely, *meaning* in nature. The shared objective here is also the pretheoretical ambition of understanding the place and role of meaning in the building blocks of life itself. The position that *codes* are the key to understanding meaning at the biological level has at times been called semantic biology, biosemiotics and code biology (Guimaraes, 2003; Vega, 2018),[3] and the connection to biosemiotics as it has been presented to us is undeniable in both a historical setting and some of their shared background assumptions.

There may be more perspectives that are at odds with biosemiotics when it comes to exploring the origins and function of organic meaning,[4] but for different reasons these may still be grouped under the umbrella of biosemiotics anyway, be it because of methodology, philosophical background or particular aims. However, we may readily group different kinds of research that take *meaning* and *biological function* as their base level under more general terms. I believe we can refer to such perspectives as the *sciences of meaning* in order to expand our perspective. The "science" moniker is not without issue. Is semiotics a science to begin with? What do we mean by science exactly?

Looking back at the development of semiotics, we find that at an earlier time, most precisely the 1950s and 1960s, it has been characterized as a science because of its intermingling of linguistics, information theory and cybernetics (Salupere, 2011, 272). However, biosemiotics has also been seen as non-scientific or lying

[3] Not related to 'semantic biology' in the sense of semantic web technologies applied to biology, as in Hancock (2014).

[4] Code biology stands as a particular example because of the institutional formalization it undertook after declaring itself not a part of biosemiotics (Barbieri, 2018).

mostly in the humanities (Deacon, 2015) or as not having proven the essential case that the cell, the basic unit of life, is not a semiotic system (Barbieri, 2008, 24). Whatever the case may be, it seems that having a concern with meaning is insufficient to lump together different research practices that deal with it. Instead though, we rely on the interdisciplinarity expressed in the approaches and their hinging on established scientific approaches (such as biology) to present a partial case for the intent of finding meaning as an observable property of biological systems. By *sciences of meaning* we mean the general, intentional and systematic attempt to describe meaning as a causal building block of organisms of all sorts. This categorization allows a more general description of both biosemiotics and parallel efforts (such as code biology) without lumping them into the same methodological pile. In what follows I will focus particularly on the contrast between biosemiotics and code biology, both broadly conceived.

## Desiderata of the Sciences of Meaning

While the theoretical desiderata of biosemiotics and code biology may be different, with the first aiming for a robust concept of the sign and the latter, of code, or the former taking a communicational approach to living systems with the latter looking for a method for understanding non-mechanistic processes at the molecular level of biology, the base of their logic is grounded in the effort to materialize the mechanisms of meaning that traditional views in biology have seemingly set aside.

Some of what is considered biosemiotics can be construed, by methodology and intent, closer to code biology, revealing a certain vagueness in the constitution of biosemiotics as a program. In addition, there is a general received view in both biosemiotics and code biology regarding exactly the issues that they try to overcome with regards to the incompleteness of biology, namely, the anti-deterministic view of biological processes, the import of agency and the need to energize research into the subjective aspects of evolution and construction of environments, to name only some principal topics.

The reason to focus here on both biosemiotics and code biology is that, when taken together, we are met with an interesting example of an integrative mix of humanities and sciences, and that while we have seen that biosemiotics belongs to a higher degree to the humanities, the integration of biology not only as background but as an active participant of the research (to the extent that such a thing is possible) makes its theory-building practices all the more demanding of a conceptual apparatus that can fit both dimensions in one. These sciences of meaning *require* an integrative framework to operate because they use different, perhaps even incompatible, perspectives in order to describe phenomena related to meaning.

In what follows we will examine how the concepts used in theory building require bridges which we can find in metaphors.

## Explanations and Model Building in the Sciences of Meaning

Something that may have caught the eye of the reader throughout this buildup is that *meaning* is still loosely defined, being effectively replaced by the elements that define the theories we have mentioned. In place of *meaning* we have concepts such as sign, semiosis,[5] code, and so forth. Many of the concepts that crop up in the sciences of meaning have a certain intuitiveness to them, despite their attempt at building a different paradigm for understanding biological processes.

One interesting starting point is the concept of sign as transported from human perception to, say, unicellular organisms. Semiotic explanations contain, of course, assumptions about the role of meaning and whatever makes meaning possible. A sociosemiotic exploration on how specific, reportable or attestable meaning emerges within a particular social setting will most likely use some specific terminology to refer to signs, their production, circulation and reception. The conceptual apparatus of language users makes the concept of sign a natural and direct one. However, in order to transport the concept of sign across different levels of cognitive complexity requires either retooling the concept of sign itself or bridging the object of study with a metaphor. Biosemiotics usually takes the former route, defining a sign in terms that are conceptually compatible with our knowledge of biology to say that a non-linguistic animal is capable of using signs.[6]

Building a biosemiotic understanding of agency implies, at the nonlinguistic level, making sense of experience for organisms that belong in this category. One common theory is *Umwelt* analysis from a phenomenological perspective, first developed by Jakob von Uexküll in his efforts to naturalize Kantian epistemology (Uexküll, 2010 [1934]). We can outline the main point of the theory as a tool for understanding salience in animal experience. This theory is shared across the board, with multiple examples of its application to specific groups of organisms and situations of organism interaction. However, the theory can also be applied to organisms that lack perceptual systems even akin to those of mammals. The Umwelt, or the living, perceived world of an organism, is a keystone of zoosemiotic theory (Maran et al., 2016a, b), that is, it seems intuitive to apply it to the perceived world of macroscopic animals. However, there have been attempts to scale it below the level of the organism (Meacham, 2016). How is a concept that involves phenomenal comprehension of an organism's environment redirected to work at a level where the phenomenal is less tangible? By ascribing non-nomological properties to the interaction of cellular organisms with their environments we can grasp the validity of the claim that agency and meaning *may* be of relevance for the study of biology itself. This leads to some conceptual lapse, because phenomenal experience as described for humans (and many other animals) does not entail a necessary parallel to that of cells or plants. If we apply the concept of Umwelt as a general norm for living,

[5] This in turn is a loosely defined concept in semiotics, usually referring to 'the action of signs.'

[6] There are cases, however, in which this can be taken to a certain extreme, including all potential physical structures as properly semiotic (Salthe, 2012).

perceiving beings, we may have to adjust just what the Umwelt ends up being. Tønnessen (2009) concedes that this may be a matter of "semantic taste"(60), but what stands to us here is that the concept of Umwelt does some heavy lifting in uncovering our intuitions about the place of agency—and ultimately, the suitability of semiotic concepts—in understanding the place of meaning across different spheres of the biological realm.

Biosemiotic explanations require some grasping of the availability of meaningful processes where these processes are unexpected, and the Umwelt functions as both a theory at the higher levels of cognition and a bridge for our understanding at the lower levels. It is here that I would like to argue that in the sciences of meaning, metaphor plays a large explanatory role.

## *Metaphors in Interdisciplinary Humanities*

The *Umwelt*, as seen before, may display a rather large gap across cognitive domains, and this gap is indeed bridged by the concept itself. If we think a metaphor, at least when it comes to the interdisciplinary humanities, can maintain theoretical coherence, then we need to make a number of assumptions about the properties of metaphor itself as a theory building device. These assumptions can be briefly summarized in the thought that a metaphor is foreign to the object of study and readily identifiable as such, and whose introduction conditions our understanding of the object; it changes sense across contexts and maintains a core number of schematic features that are reliable across these contexts (Rodríguez Higuera, 2018, 105).

The *Umwelt* as applied to simple organisms becomes an explanatory device in ambiguous terms because of the vague boundaries of its definition. However, taken as the perceptual lifeworld of an animal and transported to the cellular realm may require us to reconceptualize how phenomenal perception may be active in such organisms. Portraying the idea of the world as perceived by a cell becomes easier as part of the theory by appealing to the notion that there is a relevant similarity in how we use meaning and how things that are not *necessary* for something like a unicellular organism pertains to the same, or at least similar mechanisms.

The interdisciplinary humanities, as partially exemplified by the sciences of meaning, are bound by the conjunction of a source discipline and its neighboring areas of interest (Rodríguez Higuera, 2020, 487), and when applying biological concepts to areas that have been commonly under the peruse of the humanities, the conceptual tension is a source of both theory development and unexpected incompatibility. The case of the Umwelt, while more ambiguous, represents a way to understand at least some features of meaning by using a top-down perspective, with metaphor doing structural connections between human experience and the interaction between unicellular organisms and their environments.

As the interdisciplinary approach becomes more intrinsically related to the explanations that emerge from the sciences of meaning, we need to explore how the concepts used are conceived as metaphors or even beyond being metaphorical at all.

## *Is Code a Metaphor?*

Code biology, as one of the main points of focus within the sciences of meaning as we have presented them, constructs a case starting from the refusal to accept *code* as a metaphor. The assumption from biology is that code is a useful and productive metaphor bundling physicochemical entities, processes and features to communicate the idea of connection between these, without any actual sense of semantic properties belonging to these relations, but considering similarities with human symbolic systems (Stegmann, 2016). Barbieri (2002) objects to the notion that *code* is, however, a metaphor. In defining code, *arbitrariness* and *codemaking* stand out as its main properties (744), but Barbieri sees them as non-nomological correspondences between domains, or arbitrariness. This in turn allows code biology to look for codes in the latter sense as radicals of the theory, irreducible when explaining biological processes (Zámečník, 2021).

What this does for us here, however, is perhaps turning the metaphor on its head: If code, conceived the way Barbieri does, is a biological radical, then the uses we have come to take for granted are derived from the existence of such a basic connection to begin with, or so we may think if we follow the idea that codes become more complex in conjunction with the level of complexity of organisms and their communities (Barbieri, 2009; Coca et al., 2021). It may be the case, however, that if the radical code is conceptually the arbitrary, unmotivated connection between two different domains, then its application to non-biological objects of study may depend on building a new metaphor for the code itself. Cultural codes (say, the alphabet) may share properties with biological codes without having any actual connection with them but a structural semblance.

If code is at the origin of meaning, from the outside, the idea of the code serving as a metaphor allows us to grasp the sense of the organic code, but the redefinition of code makes us change the sense of code altogether.

## *Language Metaphors at the Intersection of Biology and the Humanities*

Since the sciences of meaning try to understand meaning as a biological function (at least partially), there is an important overlap between linguistic approaches and semiotic approaches. While some attempts have been made to categorize and understand the specific relations of metaphors, semiotics and biology (Emmeche &

Hoffmeyer, 2009), biosemiotics is generally permeated by concepts that call for a metaphorical understanding and, at the same time, a reconceptualization of the very metaphors that can be used for understanding how meaning works at the biological level.

One such concept is that of *text*, which can be used to talk about collections of signs, organisms and so on (Kull, 2002). This concept bridges the idea of meaning in cohesive sets (as a novel would appear to be, for instance) and the fact that for the concept of the sign to be coherent at the biological level it would require to come in conjunction with other signs.

Linguistic metaphors do work by appealing to the commonsense idea of meaning, but in contexts where language does not do work. In that way we may end up with communicative approaches described in terms of linguistic information transmission when describing biological operations, with messages, expressions, dialogue partners, and even the pragmatics of such processes (Witzany, 1998). The explanatory power of language metaphors outside of linguistic contexts is a function of the need to communicate the similarity of informational processes in different organisms. The more abstract the context, the more work is done by implication. Where a linguistic description of animal utterances may find closer similes in human language (Sharov, 2016), the work of metaphors become more apparent and more necessary when dealing with communication-like features of simpler organisms.

Information has been the subject of constant usage in biological parlance, but the expansion of information towards the sciences of meaning has also seen an integration of linguistic and communicative concepts in order to set the boundaries of research (Vidales, 2021). In using the shared language of communication and language to refer to non-linguistic phenomena, the gist of *meaning* becomes more apparent. Grammar, instead of structure, provides both the sense of arbitrariness and rule-governance of linguistic systems (Owsianková et al., 2018). This provides us with a high level explanation of the system and a set of tools for analyzing our object, even when the object does not belong to the category of elements originally applicable to the tools.

This then is one of the most important features of metaphors within the sciences of meaning: They provide explanatory similes and open up the possibility to deploy certain analytical tools, albeit with some extra work, that can, if the mapping of the similarities between different domains remains true, expand the theory itself and hopefully reveal how mechanisms of meaning are shared across levels of complexity.

## *A Mixed Bag of Metaphors*

Unlike the work computational metaphors have done for the philosophy of mind, to name an example, the sciences of meaning do not yet have a thoroughly defined set of metaphors to fully develop or rally against, except at a superficial level in the differences between codes and signs as basic units of analysis. What is interesting, however, is that the metaphors that show up in the construction of their theories go

both ways: They enter as metaphors but are turned on their head, resignified to fit the theory better.

Statements including metaphors that pertain to theory building give us a cognitive model of properties. In the case of meaning as a subjective, agential, nondeterministic and causally relevant phenomenon, the abstraction of the actual object of study is grounded in the metaphors that allow us to see meaning as a commonsense element in our worlds.

If linguistic and informational metaphors are of the utmost importance to the sciences of meaning, it is because meaning is conceptually attached to them. Here the interesting thing is that, as mentioned earlier, the theories need to decide whether they want to retool the concepts they use to expand them into the new area of research or bridge them with metaphors, as it happens with the concept of the sign. If, for instance, code is first taken in its inception as a concept derived from linguistics or information theory, it can uncover some particularities of meaning at an area still being contested by different possible research programs. Once code is deemed as a good alternative, it is reworked in a way that is made less compatible with the original concept and more applicable to its object of study. Yet, much like the case of biosemiotics resignifying general semiotics, the metaphor works well enough that it changes the whole panorama of the field of research well into the areas that emerge at a certain distance from the object of study, but as a consequence of it.

The sciences of meaning as we have tried to describe them are an interesting case study of interdisciplinary metaphor usage because of the complexity of understanding abstract, unrelated concepts as applied to other fairly abstract objects of study. By being capable of understanding the extent of these metaphors, and of the conceptual technology employed by these theories, we can examine their assumptions—such as the applicability of the same concepts at substantially different levels, like unicellular perception and linguistic usage—and assess whether the work done by the metaphors is warranted at all. The sciences of meaning have a long way to go before constituting proper sciences and having fully coherent methodologies, but the main gist of their assumptions, which allow us to lump them together, open up paths of new theory building in ways that have yet to be fully understood, but that offer great promise in the slow process of developing our understanding of agency across living beings.

## Dialogue

Turning concepts into clearly explained theoretical objects in our construction of theories is, in the social sciences and the humanities, often a rugged path. Can metaphors be applicable across domains preserving both sense and accuracy? Is metaphor as a meaning-making device functionally identical in theory construction and the semiotic conception of perception?

An important part of this article has been informed by biosemiotics both as an example of metaphor usage in theory and as a theory of meaning-making that helps

us understand metaphor itself. In this sense, subjectivity—one of the essential qualifiers of biosemiotics—is something to be explored further. Metaphor, cognitively speaking, may be part of a complex arsenal of tools to generate meaningful connections between perception of things and the sense in which things are apprehended. Human beings may construct and reconstruct "their world in an intersubjective and symbolic-paradigmatic dynamics" (De Luca Picione, 2020, 647), building connections about the world with others, and metaphors may also display a social dimension capable of making hard concepts more public and accessible. The subjective dimension of comprehending theories will still require us to understand domains of knowledge across individuals, and concept formation, in the sciences and beyond, may emerge in dealing with persistent issues of all sorts (Engeström, 2020). What I have termed as *the sciences of meaning* comes as a response to the issues of categorizing different perspectives that may not identify with the same methodological stances while keeping a number of shared assumptions in their programs, such as the relevance of some forms of meaning for understanding biological processes. Metaphor can illuminate the path for these diverging perspectives by allowing their differences to be bridged by way of illustration, though precision is an important issue to be solved when it comes to incommensurable outcomes for different methodological stances, such as the comparison between a subjectivity-focused analysis of the lifeworld of an organism, for instance, and the desire to find genetic rules that become articulated within the framework of codes as two-world connectors. Metaphor cannot bring results together as if they pertained to the same category, but it can allow different research areas to converse about the fundaments of the theories that are united by the common thread we have previously mentioned.

Meaning-making is itself elusive because, as we have seen, meaning may take on multiple forms in its application as a theoretical device. Metaphors become an integral part of theories related to meaning-making when they become the means through which we parse the meaning of meaning. As the sciences of meaning mature, these metaphors will change, as should be expected, for metaphors are grounded in space and time, often serving as a contextualizing tool. These changes in how we understand the metaphors we use will also play an important role in how these theories develop further, and understanding the role of metaphors across the social sciences will provide fertile ground for developing more consistent and clearer theories.

## References

Barbieri, M. (2002). Organic codes: Metaphors or realities? *Sign Systems Studies, 30*(2), 743–754.
Barbieri, M. (2008). The code model of semiosis: The first steps toward a scientific biosemiotics. *The American Journal of Semiotics, 24*(1–3), 23–37.
Barbieri, M. (2009). Three types of semiosis. *Biosemiotics, 2*(1), 19–30.
Barbieri, M. (2014). From biosemiotics to code biology. *Biological Theory, 9*, 239–249.
Barbieri, M. (2018). What is code biology? *Biosystems, 164*, 1–10.
Barthes, R. (1997). *Elements of semiology*. Hill & Wang.

Camp, E. (2006). Metaphor and that certain 'Je Ne Sais Quoi'. *Philosophical Studies, 129*(1), 1–25.
Coca, J. R., Eraña, H., & Castilla, J. (2021). Biosemiotics comprehension of PrP code and prion disease. *Biosystems, 210*, 104542.
De Luca Picione, R. (2020). The semiotic paradigm in psychology. A mature Weltanschauung for the definition of semiotic mind. *Integrative Psychological and Behavioral Science, 54*(3), 639–650. https://doi.org/10.1007/s12124-020-09555-y
Deacon, T. W. (2015). Steps to a science of biosemiotics. *Green Letters, 19*(3), 293–311.
Delahaye, P. (2021). Rats, mice and humans. *Linguistic Frontiers, 4*, 44–52.
Eco, U. (1976). *A theory of semiotics*. Indiana University Press.
Emmeche, C., & Hoffmeyer, J. (2009). From language to nature: The semiotic metaphor in biology. *Semiotica, 84*(1–2), 1–42.
Engeström, Y. (2020). Concept formation in the wild: Towards a research agenda. *Éducation et Didactique, 14–2*, 99–113. https://doi.org/10.4000/educationdidactique.6816
Fodor, J., & Lepore, E. (2012). What sort of science is semantics? In G. Peter & R.-M. Krauße (Eds.), *Selbstbeobachtung der modernen Gesellschaft und die neuen Grenzen des Sozialen* (pp. 217–226). Springer Fachmedien Wiesbaden.
Guimaraes, R. (2003). The organic codes: An introduction to semantic biology. *Genetics and Molecular Biology, 26*.
Hancock, J. (2014). Editorial: Biological ontologies and semantic biology. *Frontiers in Genetics, 5*.
Hoffmeyer, J. (2007). Semiotic scaffolding of living systems. In M. Barbieri (Ed.), *Introduction to biosemiotics: The new biological synthesis* (pp. 149–166). Springer.
Hoffmeyer, J. (2011). Biology is immature biosemiotics. In *Towards a semiotic biology* (pp. 43–65). Imperial College Press.
Jaroš, F. (2017). The three semiotic lives of domestic cats: A case study on animal social cognition. *Biosemiotics, 10*, 279–239.
Kauffman, S. (2015). From physics to semiotics. In D. Evers, M. Fuller, A. Jackelén, & K.-W. Sæther (Eds.), *Issues in science and theology: What is life?, issues in science and religion: Publications of the European Society for the Study of science and theology* (pp. 3–19). Springer.
Kull, K. (2002). A sign is not alive – A text is. Sign Systems Studies,30(1):327–336.
Kull, K. (2003). Thomas A. Sebeok and biology: Building biosemiotics. *Cybernetics and Human Knowing, 10*, 47–60.
Kull, K. (2009). Vegetative, animal, and cultural semiosis: The semiotic threshold zones. *Cognitive Semiotics, 4*, 8–27.
Lakoff, G. (2006). Conceptual metaphor: The contemporary theory of metaphor. In D. Geeraerts (Ed.), *Cognitive linguistics: Basic readings* (pp. 185–238). Mouton de Gruyter.
Lepore, E., & Stone, M. (2010). Against metaphorical meaning. *Topoi, 29*(2), 165–180.
Maran, T., Tønnessen, M., Tüür, K., Magnus, R., Rattasepp, S., & Mäekivi, N. (2016a). Methodology of zoosemiotics: Concepts, categorisations, models. In T. Maran, M. Tønnessen, K. Armstrong Oma, L. Kiiroja, R. Magnus, N. Mäekivi, S. Rattasepp, P. Thibault, & K. Tüür (Eds.), *Animal Umwelten in a changing world: Zoosemiotic perspectives* (*Tartu semiotics library*) (Vol. 18, pp. 29–50). Tartu.
Maran, T., Tønnessen, M., Magnus, Mäekivi, Rattasepp, N. R. S, and Tüür, K (2016b). Introducing zoosemiotics: Philosophy and historical background. In Maran, T., Tønnessen, M., Armstrong Oma, K., Kiiroja, L., Magnus, R., Mäekivi, N., Rattasepp, S., Thibault, P., and Tüür, K., Animal Umwelten in a changing world: Zoosemiotic perspectives, 18 *Tartu semiotics library*, 10–28. , Tartu.
Matthews, P. (2001). *A short history of structural linguistics*. Cambridge University Press.
Meacham, D. (2016). How low can you go? BioEnactivism, cognitive biology and umwelt ontology. *Humana.Mente Journal of Philosophical Studies, 31*, 73–95.
Nöth, W. (2000). Umberto Eco's semiotic threshold. *Sign Systems Studies, 28*, 49–60.
Ogden, C., & Richards, I. (1930). In K. Paul & T. Trench (Eds.), *The meaning of meaning: A study of the influence of language upon thought and of the sciences of symbolism* (3rd ed.).

Overton, W. F., & Palermo, D. S. (1994). *The nature and ontogenesis of meaning*. Psychology Press.
Owsianková, H., Faltýnek, D., & Kučera, O. (2018). Genetic analysis of cabbages and related cultivated plants using the bag-of-words model. *Linguistic Frontiers, 1*(2), 122–132.
Paolucci, C. (2012). Identité, sémantique, valeur. L'Arctualité de Saussure pour la sémiotique contemporaine. *Cahiers Ferdinand de Saussure, 65*, 81–102. Publisher: Librairie Droz.
Pattee, H. H. (2012). Evolving self-reference: Matter, symbols, and semantic closure. In *LAWS, LANGUAGE and LIFE, biosemiotics* (pp. 211–226). Springer.
Proni, G. (2015). Umberto Eco and Charles Peirce: A slow and respectful convergence. *Semiotica, 2015*(206), 13–35.
Putnam, H. (1975). The meaning of `meaning. *Minnesota Studies in the Philosophy of Science, 7*, 131–193.
Queiroz, J., & El-Hani, C. N. (2006). Semiosis as an emergent process. *Transactions of the Charles S. Peirce Society, 42*(1), 78–116.
Ricoeur, P. (1975). *La Métaphore vive*. Seuil.
Rodríguez Higuera, C. J. (2018). Productive perils: On metaphor as a theory building device. *Linguistic Frontiers, 1*(2), 102–111.
Rodríguez Higuera, C. J. (2020). Metatheoretical commitments in the humanities. *Chinese semiotic studies, 16*(3), 477–491.
Salthe, S. (2012). On the origin of semiosis. *Cybernetics and Human Knowing, 19*(3), 53–66.
Salupere, S. (2011). Semiotics as science. *Sign Systems Studies, 39*(2/4), 271.
Sebeok, T. A. (1968). Zoosemiotics. *American Speech, 43*(2), 142–144.
Sebeok, T. A. (1991). *A sign is just a sign. Advances in semiotics*. Indiana University Press.
Sharov, A. A. (2016). Evolution of natural agents: Preservation, advance, and emergence of functional information. *Biosemiotics, 9*(1), 103–120.
Sharov, A. A., & Kull, K. (2022). Evolution and semiosis. In J. Pelkey (Ed.), *Bloomsbury semiotics: History and semiosis, Bloomsbury semiotics* (Vol. 1, pp. 149–168). London.
Stegmann, U. E. (2016). 'Genetic coding' reconsidered: An analysis of actual usage. *The British Journal for the Philosophy of Science, 67*(3), 707–730.
Tønnessen, M. (2009). Umwelt transitions: Uexküll and environmental change. *Biosemiotics, 2*(1), 47–64.
Tønnessen, M. (2015). Uexküllian phenomenology. *Chinese Semiotic Studies, 11*(3), 347–369.
Uexküll, J. V. (2010). *A foray into the worlds of animals and humans: With a theory of meaning* (1st ed.). University of Minnesota Press.
Vega, F. (2018). A critique of Barbieri's code biology through Rosen's relational biology: Reconciling Barbieri's biosemiotics with Peircean biosemiotics. *Biological Theory, 13*(4), 261–279.
Vidales, C. (2021). From cybernetics to semiotics to Cybersemiotics: The question of communication and meaning processes in living systems. In C. Vidales & S. Brier (Eds.), *Introduction to Cybersemiotics: A transdisciplinary perspective, biosemiotics* (pp. 33–74). Springer.
Weinreich, U. (1980). Semantics and semiotics. In *On semantics* (pp. 3–13). University of Pennsylvania Press.
Witzany, G. (1998). Explaining and understanding LIFE. The biosemiotic model and some suggestions in the light of pragmatics of language. *Semiotica, 120*, 421–438.
Zámečník, L. (2021). Causal and non-causal explanations in code biology. *Biosystems, 209*, 104499.

# Part III
# Lebewesen

*Lifeform*

*Space, described as I,*
*While under construction,*
*Results here already meaning,*
*Who feels more?*

# Ice Cream: An Exploration of Outsiders by Parasitological Insights

**Marc Antoine Campill**

Parasites are complex and very misunderstood life forms. Central in every act of a parasite is coexistence. Based on this vital need for coexistence, I would like to emphasize the need to profit from the knowledge about parasites to explore metaphysical phenomena in and between humans in a particular metaphorical *Gestalt*. Enriched by the organic diversity, a new interrelation between individuals and a new positioning toward specific contaminated terminologies such as parasitic and *Hikikomori* or *Gamer* can emerge (Campill, 2021). To do so, we need a certain context of the phenomenon of interest, the parasites, and the theoretical background, but before we can introduce those, let us start with a short insight into reflections on the terminology "Parasite."

## Introduction

As Stoll emphasized in his paper "*A wormy world"* (1947) (Fig. 1), the world is overfilled if not dominated by the existence of the parasitic life form, often categorized as microparasites. To exist collates with the fact that the human will be contaminated by one or another parasite, a situation that sounds at first very intimidating but is simply said normality. *With existence, there is coexistence*. We could even say that the parasitic life form dominates the planet's biodiversity and is unalienable for our current ecosystem. We exist while standing in constant dialogue with parasites; meanwhile, the parasitic life forms and the terminology communally used for them

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**Fig. 1** Artistic interpretation of the worm world

could not be more biased. That terminology is often related to dirt, sickness, freeloader, and profiting from others. The word parasite already implies the expectation that a deformed little creature successfully enters our bodies and has the desire to live by taking vital nurturing from the host.

A common expectation is that they are evil villains of nature that need to be extinguished. Unfortunately, such actions influenced by beliefs would result in a counterproductive state, where the human being and the nature from humans, as is beautiful described, would suffer from such a destructive positioning. The same goes for the phenomena we relate to the parasitic life forms. For example, radical political movements proclaim the extermination of the "parasites" to defame entire population groups or discriminate against individuals with unpopular lifestyles. A movement that is as harmful and senseless as the extinguishment of parasites, because once it is simply a position depending thought/opinion and secondly roots from the reduced knowledge towards others that is interwoven with misunderstandings and ignorance of oneself. An alternative example of such defamation can be found in the Japanese context. In Japan, young and predominantly female adults who live with their parents are often labeled as "parasitic singles," not carrying out their socially-expected role as housewives or mothers, preserving Japan's future and the economic system by contributing to children and supporting their partner.

Parasites are of tremendous importance in our ecosystem, even more critical than we could be aware of. Considering that even parasites can have parasites and that the majority of animals in our world are at least temporarily in a parasitic state, this

underlines its natural occurrence in our world and its central importance in understanding what lies behind the so-called parasitic.

In short, parasites — or individuals described as such — should not be defined as outsiders or disruptive factors but as integral, vital parts of our natural symbiosis. This perspective also underlines the importance of learning to improve our knowledge of parasites, a perspective that the psychological field should have in common with parasitology, underlining that we would understand our world better if we tried to understand what we communally pronounce to be parasites. Understanding those individuals and their role in the ecosystem, in its complexity, will allow us to improve our social networks in favor of every individual, while generating a field where we can benefit socially from their unique but hidden abilities instead of isolating them. For this particular purpose, the very beginning of the human reflection in the inner-cultivated metaphysical will be elaborated by exploring the dynamic complexity of our inner thoughts.

## *Extending Hermans' I-Position*

The central idea of Hermans' I-position (2001) is that the self should be seen as a multidimensional and fragmental form that constantly stands in dialogue with other parts and represents in its whole dialogical constellation as the present Self (DST). On this occasion, the I-positions represent certain positions, desires, or needs that the individual experiences as essential or necessary to preserve itself. This diversion of permanent positions also underlines the need to temporarily decide whether to take certain positions based on inner dialogues triggered by the need to approach a desired future self.

This nature of I-positions can also be related to the nature of parasitic symbiosis. The I-position can be described as an entangled construct of plant strings, generated out of other I-positions and sent into the polysemic dialogue of the self. In other words, the construction of one I-position is the accumulation of the extended content of other I-positions, voices, that then in symbiotic dialoging form a new *Gestalt of I*. It is crucial to remain aware that the inner dialogue is not some kind of pacifistic negotiation to generate the most suitable *current* self. The dialogical self is identical to our physical reality connected to the principles of survival of the fittest. In the accumulation of certain I-positions, voices are temporary representations of the sending I-position but can, as soon as they have been sent away, become autonomic constructs with the desire to preserve primarily themselves. An I-position can send a metaphysical sprout — voice — into the discussion that then connects with other positions and creates a new homeostatic self. In this process the different positions do not disappear but develop in coexistence; it is in that process where the parasitic nature of the dialogical self is activated. The I-positions try to profit from their dialogical partners, to improve their conditions in the current self in such a manner that the current self can attempt to approach the desired goal while also gaining a higher potential to preserve or generate an advantage in positioning over the others. In

**Fig. 2** the *I-scream*, illustration of the title by Sarah Campill adapted by the author (2022)

other words, the sprouts can support the sender, while generating its own homeostasis in which it can live. The voices in dialogue profit from each other's, by selecting or supporting the preferred perspectives from the others, while adjusting them as far as possible to their own advantage, a process that can in the end lead to the possibility that some of the positions lose their influence by being absorbed by another smaller one that then gains in size and value.

Thereby, we understand that the DST is in its unique *Gestalt,* allowing us to understand *how* people can act controversially by changing their self's positioning between their inner I-positions. Meanwhile, a particular extension is needed, which I would like to introduce as I-scream (Ice cream, Fig. 2).

## Emerging of a Scream

Before we can shift to this so-called *scream*, a second central term needs to be integrated: *voices.*[1] Voices can be understood as elaborated reflections and thoughts about a specific I-position nexus sent out of what the current self I-position nexus can perceive. A voice is, in other words, a medium for the information package that has been transformed by a temporary I-position composition/fusion for the purpose of sending it further (deeper) into the vision field of the *current meaning-generating self*, where the importance and needs of the current self's positioning are used to perceive the past and present while predicting the potential futures and desired continuity of the future-movement (Campill &Valsiner, 2021).

[1] Based on the author's perspective, the construct voices can be understood as interwoven threads of existing I-positions that in their dialogue between other I-positions continue interviewing or loosen the connection with each other, creating new voices that can then be used as reflection material for the current self's future projections, past reflection, current experience interpretation, and experience-making behavior.

From a very general point of view, the I-scream can be described as the experienced dissonance between expectations and reality after overcoming a rupture. In other words, it represents the resulting pressure of trying to organize the experienced chaos. Nevertheless, the I-scream can be experienced in several moments in life and underlines the human's reaction — decision after a rupture or *Gestalt explosion* (Bisgaard et al., in press). It is in this situation that it possible for the I-scream to emerge. After experiencing environmental new information, the self has to reposition its I-position, whereby a particular dialogue is triggered to find the most fitting new positioning; at this moment, a chaotic dialogue is started, where certain positions are neglected or over-focused.

The I-scream is neither positive nor negative but represents the shifting between the I-positions in dialogue that creates an overlap or extended gap between the voices of certain I-positions, whereby the individual is stagnating in certain action impotence. Thereby, we understand that the dissonance experienced in the I-positions after or during their process of forced change then triggers an adaptation. The I-scream announces a change with after effects that must be considered before accepting or adapting the change made.

This development can be of a negative or positive nature for the individual experiencing it. In its phenomenological nature, the I-scream and the *Gestalt explosion* (Bisgaard et al., in press) can be seen as a co-existing phenomenon, similar to a physical explosion, where first the explosion and later on in delay, the sound of the explosion follows. Identical to the explosion and its noise, the social environment experiences an individual's confrontation with a *Gestalt explosion*, whereby, in contrast to the actual explosion, the subsequent changes do not simply result based on the physical pressure but also on the subsequent individual reflection on the newly experienced reality.

Such an I-scream can be bullying in the case of an individual, leading to physical distancing toward factors that allow such an event to be re-experienced. The phenomenon of a *Hikikomori* lifestyle would retrace an example of such a changed lifestyle. In that case, the individual literally experiences an I-scream that drastically drives the self to change the current self. On this occasion, the self generates awareness to influence and interpret the experience whereas the individual has experienced extreme distress.

Identical to this individual, if in the *Hikikomori* state or before, the treatment of the individual is of interest, which can be linked directly to the metaphorical tool of this paper — the notion of parasite treatment. This metaphorical extension is interesting, especially as it takes into consideration that the cultural self, an accumulated form of the existing I-positions that are preserved and cultivated, can be combined in the organic metaphysical network meadow (Campill, 2021), where I-positions and their interaction through voices are visualized through the symbiosis of the plants and animal inhabitants of a meadow. Especially here, the parasite's role is undeniably a central cofactor of the *preservation and modification* of the meadow and thus also a central factor in the formation of the individual cultural self.

## The Metaphor of Interest: Parasite as a *Helper*

"*A parasite does not co-exist, it creates the need for co-dependence, leading to the consumption of the host until its very end – ready to leave for the next resources.*"[2] It is definitely true that in our world there is such a kind of parasite that in the direct host–parasite dialogue focuses on individual advantages that result in consuming the host's essential resources. Nevertheless, the parasite is not simply such a one-of-a-kind category of creatures. The parasite is a complex animal with thousands of forms and lifestyles. Three major categories are, for example, parasitic protozoa, helminths, and arthropods. Protozoa are organisms that exist simply as single cells and can be found free-living or in parasitic coexistence, depending on the circumstances. Helminths are, in contrast, more complex life forms with complex internally developed organ systems. Its form can be described as a worm-like animal. Finally, arthropods are the largest of the three parasitic life forms that are in common understanding more strongly related to the domestic field of animals. Insects or arachnids are the more common kinds of protozoa, whereby their physical existence is probably the most complex one of the aforementioned three categories. Ticks and lice are well-known examples of protozoa and are also one of the reasons why the general categories of the parasite are well-known and biased terminology in our everyday lives. This diversity is also why the scientific field and its observations are essential for the psychological field, allowing general analyses while underlining a well-elaborated diversity in life form and impact.

In its role as a life form, the parasite also experiences a developmental process in which even a change in the anti-genetic or the composition — *Gestalt* — can be experienced. In other words, what in the early phase was nonharmful can develop over time into a life-threatening coexistence, and vice versa. In the relationship between humans and parasites, it is central to underline several possibilities for coexistence. In other words, a parasite can harm, support, or exist in a commensal neutral positioning with the host, a diversity that underlines the central importance of understanding such biodiversity instead of implying the inner prejudices toward this kind of life form.

From the very beginning, the parasitic life form can be a part of the inner homeostasis of the host, whereby it is even possible that the host is even prepared or expecting an encounter with specific kinds of parasites. In its complete *Gestalt*, a parasite is of central interest for the (cultural) psychological field based on everyday life that embodies the essence of a border-crossing movement/existence. Identical to the human being self, the parasite creates unique strategies to survive in its desired form that are not always directly retractable by an observer. In a very generalized perspective, the human beings' reproductions and introduction into the physical reality even contain strong relations toward the parasitic life form. A resemblance that is extraordinary when considering how ambivalent the human reproduction and the parasitic coexistence are seen in the social normative reality.

[2] Fictional example of counter positions toward parasites.

In the metaphorical relation, the parasite represents in its full complexity an individual in having experiences, challenged in its environment. It is here where microscopic acts, interactions, and decisions are influencing our life. Our meaning-making and social constructions are identical to the parasites in their environmental settings, the microscopic or nanoscopic areas, where the most fundamental changes are made. Even in a in time-framed observation of a moment the impact of the inner *nano- and micro-changes* are visible as major milestones for individual and environmental development, which leads us to a central example of the study of the individual in *Hikikomori* that itself once existed in an alternative and coexistence-dominant lifestyle and is an essential example of *nano-changes*. Once individual changes in the self that have been triggered by central life events to strong changes in the current–future coexistence between self-environment and second, as a social *nano-change* that leads, from the individual's changed lifestyle, to an impacted and challenged social coexistence, as in law or in business, or family-relations. That implies the I-scream as a trigger for a changed set of inner voices but also as a trigger for social change that results from individuals with so-called atypical behavior and/or abilities as by a *Hikikomori lifestyle*.

## The Phenomenon of Interest

*"What is hidden behind the concept of a Hikikomori lifestyle in the twenty-first century?"* We will dive into a central conceptualization that directly relates to the *Hikikomori* lifestyle, described as the potential reason why and *how* the current thematic of withdrawal behavior could have been emerging and may have essential take-home messages for the scientific field.

"*What does it mean when a human being is diagnosed with Hikikimori tendencies?*" In a generalized view, it could be described as not simply a lack of individual awareness and abilities but a complex creation of structural ignorance concerning psychological distress, triggering each other (inner-positions) in a circulation of isolation, resulting in something we describe as social withdrawal. Such an explanation is insufficient for a proper understanding of the phenomenon itself.

In May 2010, the Japanese government, collaborating with a research group, released a guideline describing the construct of *Hikikomori*, emphasizing the need for and elaboration of a potential treatment for human beings in the state of *Hikikomori* (Saito, 2010).

> *A phenomenon in which persons become recluses in their own homes, avoiding various social situations (e.g., attending school, working, having social interactions outside of the home etc.) for at least six months. They may go without any social contact with others* (Tateno et al., 2012, p. 1, par 2)

In actualized guidelines, several changes have been made. An essential adjustment is the inclusion of the act of leaving one's own house, or home, as long as it is without "*social interaction,*" in the potential *Hikikomori* state-like behavior. Another

change can be located in the dimension of developmental disorders and the field of work and school. The environmental factors are included in the pathological — before, during, and after — the generation of withdrawn-like behavior, distress initialized by the interaction between the environment and the individual, for example, being bullied, bellowed at, excluded, or refused by current companions or colleagues, or a sense of incongruity in particular communities (sport, work, school, or even at home.). A distressing dialogue can result through the circulation of negative thoughts and can enforce excessively protective behavior from the parent's side and for the individual abnormal family behavior (Saito & Angles, 2013).

It is crucial to consider that the concept of *Hikikomori* is still under discussion, leading to the fact that it is understood differently in the global layers of the clinical field. In an alternative perspective, researchers proclaim that the concept of *Hikikomori* cannot be categorized as a classical disorder. That belief is rooted in observations regarding the psychiatric disorders that would fit better as a diagnosis of the concept of *Hikikomori*. In a study by Tateno et al. (2012), approximately 30% of psychiatrists declared that they believe that schizophrenia would be the most applicable ICD-10 diagnosis for individuals in their withdrawal phase. Around 50% of the pediatricians interviewed emphasized *Hikikomori* as a description of intense expressed social withdrawal-like behavior linked with psychiatric disorders in a neurotic or stress-related spectrum.

In conclusion, the three perspectives, not a disorder but part of existing diagnostic criteria (Kondo et al., 2013), and a new category of disorders, are still challenging each other in elaborating the meaning of the concept of *Hikikomori.* The belief that the concept of *Hikikomori* is not a disorder can be seen as particularly interesting in the following reflections, a position that can be related to the so-called culture-bound syndrome (Teo & Gaw, 2010). The doubt in the declaration of specific disorders is typical for the critical human being and allows us to dive through divergent positionings into the phenomena of interest. Taking into consideration that not every 'case' of *Hikikomori* could be experienced, individually or even in specific communities, as unfavorable or contributing to distress, based on the high numbers of people experiencing the state of *Hikikomori*, it is not implied that a mental illness has to be observed —the still subjective observation of an illness or its *non-existence* (Kato, 1966).

Considering that the act of non-attending to a community is a vital sign of failing to adjust to their surroundings, the treatment shows the individual how to bond and connect with their surroundings.

> For example, in the case of a being in a *Hikikomori* state, the modification of the system and relations between family and individual. The potential working field counts as an essential part of the treatment, whereby positive and stable emotions such as trusting and caring for each other are triggered by several following sessions, that include at the same time the presence of the individuals in the near surrounding that need to be bonded with and in several cases the cooperation with future employers and colleagues.

That leads to the need to share certain doubts in the positioning between individuals and society. Considering that a society is in constant dialogue with its citizens, resulting in adaptations and modifications of laws, communities, and provision of

support, it seems like the labeling of human beings as *Hikikomori* should be seen as an inadequate response to the occurring unelaborated phenomena that we are confronted with right now. The point of view that will be elaborated and followed in this work will be linked to the particular opposition, if maybe our society is the one in need of treatment and social withdrawal should be seen as a society, community, withdrawing a new side of its citizens by an inadequate normality[3] construction. Focusing on the high developmental speed, such as in global civilization and networking, our global society is confronted with the emergence of new mediums as technology. We have to ask currently*: "Are we lost in the illusion of a mainstream interpretation of health and normality, hindering the individual identification process by forcing it into the normality of a no longer existing echoing past*?"

## Dialogue and Misunderstandings, a New Generation and its Pop-Up Cultures

We start with a simple and essential example of social changes over the irreversible time, growth, and evolution of the Japanese language. Staying in the context of social withdrawal, three unique, young, but quite negative concepts that were integrated in 2010 into the Oxford English Dictionary are, for example, the word *Hikikomori*, *otaku* (person with either obsessive interest, observable around the world since the release of the anime *Evangelion*) and *karoshi* (death by being overwhelmed by work or dying by working too much). A more positive example of a new word, this time in the Japanese language, is *Hanaemi*, which means flourishing smile, and is related to the personal experience of natural beauty by seeing someone else's smile.

Although the new evolution and growth are observable in language, sports, art, school, economy, and technology, crucial changes have been made and are still emerging. The relations between the meta-fields of sport and art are shifting and allow us to create new innovative forms of expressing ourselves and realizing personal interests, fascinating and challenging others. For example, manga and sport have an essential solid relationship and allow a new interpretation of sport and other arts to be initialized, which is strongly visible in manga, anime, cosplay, or show fights (Campill & Jankosek, In Press), a fascination that echoes further and allows a colorful change in the field to grow so wildly that the observation becomes difficult,

[3] Defining here normality as a construction of abilities, attributes, and behaviors that a citizen needs to possess to be called part of the norm and being accepted from society as being needed to be listened and adapted to. Linked toward the point of view that "individuals with disability" are not restricted on their own, but society in its current form is disabling them. For example, a human in a wheelchair that cannot freely move in the city, because the street is built with old irregular stone pavements, conserving the memories and the look of the past, while ignoring the current primary needs of living citizens, and the potential following of new arts (where still the old look and memories can be integrated).

as in the fan communities that exist for celebrating specific individuals, fictional characters, athletes, or musicians. In *Nihon*, for example, school clubs exist to support other clubs such as bands or sports groups, growing steadily and merging, uniforms, choreographies, and artworks. An emergence based on globalization extended even further and resulted in a, for some individuals, confusing chaos of stimuli that they try to order based on their meaning generation. A behavior that triggers misunderstandings based on the overwhelming divergent that hides a complex core like the tip of the iceberg.

Integrating into this occasion the technological turnaround, becoming more and more complex, and transforming into a divergence of devices that interacts not simply as a working tool but inhabits essential fragments of the individuals using it, related to every dimension of our life, from family pictures to games, from essential e-mails to funny puns and jokes (shared in casual community talks), every product can be found or created based on the network behind the world wild web, creating complex virtual communities in size and colors that had never existed before. That means that new potential is growing in this field and challenges us, humans, to reconsider our positioning in the environment, impacting our dreams and fears. At the same time, the scenario looks quite unimpressive or nonrelatable for an person observing from the outside, seeing millions of individuals looking at a screen for hours, laughing, speaking, playing, listening, while forgetting the world. A shared meta-field has been created that, in contrast to the personal unshared meta-field as the own fantasy, can be generated and formed by millions of human beings simultaneously. A virtual reality that, in contrast to the physical reality, demands a whole new spectrum of physical and cognitive attributions that stand in direct distress with the mainstream understanding of reality, that never had the chance to dive objectively into the field and started to stagnate in particular fear and doubt toward the emerging "reality." For example, fear can be described by the social reactions and claims directed toward the concepts of virtual games.

> *Video Game*:
>
> A mode of interaction between a player, a machine with an electronic visual display, and possibly other players, that is mediated by a meaningful fictional context, and sustained by an emotional attachment between the player and the outcomes of her actions within this fictional context.
>
> (Bergonse, 2017, p. 253)

A pretty exciting definition that is unfortunately only sub-optimal in its form, considering that it denies several dimensions and information located behind the construction of video games. Nevertheless, we must be aware that they are used as definitions or frames, allowing us to analyze further conceptualities and constellations. A tool allows us to dive into phenomena by describing not catching/capturing "the reality." Still, we need a generalized description of the perceived new understandings, especially in the context of games that can be described as fluid, evolving, and impacting social phenomena (Bisgaard et al., in press). Considering that the change inhabits the next games and the meaning of the older games, which change in their meaning by the humans playing or seeing them — they always keep changing (Arjoranta, 2019). However, *what* else do we learn from those games? For

our context of particular interest is the observation and elaboration of the games. Everybody has heard such sentences as "Do not play so much you are wasting your time!", "Those games are dangerous, and they glorify brutality!"

Nevertheless, are they as problematic as our environment described them? It is natural to find such strong opinions as in "the toxic meritocracy of video games: Why gaming culture is the worst" (Paul, 2018), describing the gaming community as dark and dangerous. Doubts that are entirely natural and understandable when considering that there are very dark spots in the gaming world, although they are located everywhere in the world and are not locatable in such a field as the gaming world. Neverthless, such critics and doubts have a specific use when perceiving them as the subjectivity information they are, the critic can gain central roles, or even unavoidable, for the growing process of concept gaming (Jennings, 2015). We need to remind ourselves of the magical words heard hundreds of times in the psychological field: "Correlation is not causality!"-

> As an example, we would generalize our knowledge that in school bullying is an omnipresent concept into the claim that bullying results from social connections made in schools. An axiom without context is neither true nor false, whereby it is clear that stating such a belief is dangerous and based on the assumption that it cannot remain unelaborated.

At the same level, sentences such as "*gaming is resulting in aggression*" or "*Hikikomori are dangerous for social security*" are incomplete and dangerous through their simplicity in memorizing it while sharing nonknowledge generated on subjective prejudges. Of course, there is danger hidden behind gaming; nevertheless, this danger simply results in overfocusing on a single aspect and neglecting the *polysemic multivoiced self*[4] we are usually being embedded in, which can be found in the same manner in sport, work, and leads into being inflexible for stronger ruptures in our everyday meaning generation (Bisgaard et al., in press; Campill & von Firks, in preparation).

You may ask now, "*What has this to do with the concept of Hikikomori*?" The answer may be as simple as irritating; in conclusion, the new global constellation of the twenty-first century, with its networking and technologies, allowed us to see the world and its phenomena in a new light by contrasting and enlightening every detail of it, whereas it should not be seen as being the trigger for its appearance but as a trigger for its visibility — taking into consideration the possibility that inside becomes in specific aspects much more interesting than ever before by creating a new form of the outside that goes even further into the *non*physicality. In other words, the human is challenged to create new forms of homeostatic equilibrium and uses for this process a stronger connectivity to the inner network systems of their habitat, a process that, identical to the parasite, is based on creating a habitat in the hidden layers of society bonding from the inside while stagnating more or less hidden on the outside.

[4] Can be understood as a polysemic multivoiced model "…where the community self-treats the intersubjectivity as a hyper generalized self of the community guiding externalization of meaning." (Valsiner, 2021; Bisgaard et al. in press, p.25)

## The Echo of Intolerance: Forms of Isolation

Before we dive into the metaphorical context, we will connect some potential existing similarity points/phenomena where individuals experienced/experience a *withdrawal/isolative-like relation with their environment, allowing us to emphasize the global and essential use of this work* on the *Hikikomori* phenomenon.[5] There are several interesting and potential possible examples: prisoners, quarantine (for example, the COVID-19 pandemic), or *Joryu sakka*[6] (of the past). Based on size restrictions, we will focus on three unique examples, matching the phenomena, knowing that it is only the tip of the iceberg, representing the potential retractability of the phenomenon.

### *Hermits*[7]

In Greek, *erēmîtēs* (*ἐρημίτης*) (visualized in Fig. 3), literal meaning "belonging to the desert, living in the desert" elaborated through the verb *erḗmos,* (*ἐ̔ρῆμος*), "lonely, uninhabited, abandoned." The hermits live/lived in a unique form of isolation; in medieval times, some hermits decided to retreat into nature, others remained at a certain distance from the society while earning a minimal wage needed for their living (for example, ferryman or gatekeeper). A mental border between the hermits and society has been generated, which substantially reduces possible distractions resulting from social contacts, sexual desire, or normalized concepts of behavior and self-presentation (such as hygiene). Hermits are represented around the globe by the desire to find their way to salvation by meditation, prayers, and freeing themselves from socially generated overstimulation, whereby the process and the composition of borders separating them from society vary. In contrast to *Hikikomori,* not home virtual, reality and family, but nature and other companions or passersby become their new society. Also, the social positioning of hermits is diverted, courted between respect and discomfort, nevertheless receiving a particular social legitimation of their positioning in the world (France, 2014).

[5] The focus in this occasion is set on the individual and/or social decision to (be) isolate(ed) from what at that time had been an individual social habitat but had been triggered to change into a new one.

[6] Term used for female writers, now considered obsolete. It is used to emphasize that especially the female writers of the past are the focus of this paragraph.

[7] Also, monks can be linked to this example (monks: member of a religious-based community, often associated with the masculine sexuality, living in their own separate community identical to the hermits living under chastity and certain isolation, to which an obedience of the Bible can be added. Globally, the monk represents a still a quite high, positive position in the social understanding.

**Fig. 3** The Hermits, by Egon Schiele (It is believed that on the left side of the painting, Egon Schiele drew himself and, on his right, he positioned Gustav Klimt, a friend and mentor). His artwork counts as a poetic summary of his own experiences (Schiele, 1912)

## *Mountain Guides*

Mountain guards are specially trained individuals known for their professional experiences — usually certified by local authorities and/or authorized associations. In general, their task is to instruct or lead clients individually or in groups, improve their own knowledge, or guide them based on their advanced expertise through parkours and mountains. In summer, mountain guides may be hired for certain resorts or mountain houses or points to prepare and help over the tourism season to handle the clients and passersby needing their expertise. Owing to the minimal internet connections in the mountains and the constant duration of the tourism season, the mountain guides live over a more extended period in isolation and can only communicate minimally with their old surroundings. Instead, the new companions such as colleges and clients become their new community while living in temporary isolation from their homes.

At this opportunity, I would like to introduce a thesis on potential micro isolation that in contrast to the previous examples is declared socially to be a phase that must be experienced, and is directly related to the perfect state of mind (in the context of

efficiency and quality). In contrast to micro isolations, where the current self is isolated in an individual setting between the environment and the self, the macro isolation is directed to a temporary isolation of the current self from particular selected dimensions of the environment or the self that for a certain time frame used to enhance ones' own abilities and focus on a specific content or ability. An example of such macro isolation can be found in our understanding of flow.

## Flow *(or in Sport Also Known as* the Zone*)*

Considering the flow as a mental state that a human being can achieve by realizing a task while losing the direct perception to the moment subjectively classified as not needed/relevant, while extending the general abilities in the realized task to qualitative excellence, a state that is personally perceived as unique and empowering and, socially, as hyped. Nevertheless, the state of flow has its positive and negative characteristics, for example, the loss of the time perception or losing the ability to integrate new information hidden in the self-declared noises that need to be avoided, which can result in realizing a task not only insufficiently but also endangering the other needs as hunger. An example of extreme flow can be found by gamers or workers who overdo their tasks until doing them under pressure and neglecting their personal needs.

Based on personal or social triggers and generated in physical and social isolation, an old community constellation is separated from an individual in every situation by leaving or locking in oneself. At the same time, both the environment and individual try to cope with the current distress individually, generating a temporary alternative network, which can be understood as a new community without the other side. Also, the layers of the phenomenon behind *Hikikomori* can be found at different "levels," from brief periods to more prolonged periods that result in the generalized isolation frames or withdrawal phases. We can anticipate that our everyday life and meaning-generation borders are essential conditions that the human being is confronted with sometimes unconsciously or consciously – located in the generation of social borders, physical or mental characteristics, expected roles, or interpretation of the individual perceived reality. In that case, all are bonded to *how* we perceive, nonperceive, or handle the fluidity of the overlapping area, known as borders. Looking, for example, over the possibilities, interpretations of self-isolation, it becomes clear that borders can emerge in occasional, temporary, or permanent forms, impacting our perceived reality in the nano-micro-meso-macro layers while inhabiting the similar core phenomena, an uncertain limitation-restriction that we as humans use by interpretation to categorize and perceive the world in unique manners. That results in different self-isolation landscapes, where borders are built, appear, disrupt, shrink, or grow, between and around what we call our reality, producing a new understanding, perception of borders, and perception of inside and outside may inhabit essential knowledge in our potential evolution of the unknown future, considering that inside and outside is an individual interpretation, based on

self-generated conditions, and may be understood differently by others (Campill & Tsuchimoto, 2022).

## Phenomena, Parasites, and the I-Scream

In conclusion with regard to the terminology, the I-positioning represents the potential perspective and the restricted diversity of the individual's I-positions material. Meanwhile, those factors are not simply representing a solid selection of I-positions but also allow the creation of new I-positions based on the experienced and the currently remembered material, used to create an extension of the perceived existing *rabbit hole* in the borders of the individual's imagination (Campill& Tsuchimoto, 2022). Understanding the I-scream represents the I-position of the cultivating self initializing the dialogue between the beset I-positions of the current self, triggering the need to rearrange what has been impacted by the individually experienced ruptures.

In the context of the *Hikikomori* lifestyle and the often referred to as parasitic behavior, a particular relation between the parasite and the individual in a *Hikikomori* phase can be made:

> Both embody an alternative lifestyle toward the mainstream understanding of normality and are confronted with certain socially exclusive behaviors. Negativity is generated to underline the need to purge the inappropriate. Ironically, both also inhabit clear elements of naturality as once in fragmental elements as the temporary tendencies of self-isolation for personal growth, and second the potential in a holistic setting of generating new skills and networks for an extension and improvement in cohabitation in their environment.

*The Parasite is* becoming part of the host — the society — which implies the possibility of improving or inhibiting the cohabitation in every dialogue. As in every moment of everyday life, this act of introducing something labeled as unknown, the human is confronted with an experience of losing control**.** Identical to treating an individual with a *Hikikomori* lifestyle as a parasite, the disgust toward the life form can suffice to make cohabitation impossible, whereby this feeling of disgust also triggers the interpretation of normality toward preventive behaviors for extinguishing the excluded. A process can sometimes support the protection of one's own homeostasis, although, unfortunately, the process triggered in excess can result in abusive and self-destructive behavior, destroying the biotope that it was designed to protect. The inner fear of losing control through the change can also be linked to the I-scream, as fear of the I-scream initializes the possibility of reflecting and reorganizing one's own situation and position toward something unknown. Both can tilt toward self-destructive or constructive behavior but in themselves represent a primary coping method for handling the information flooding of everyday life. That also emphasizes that the phenomenological desire for isolation is always present but is hidden in micro-isolation. This awareness can not only be grasped by the little insight into alternative forms of isolation but can also be retracted in the example of

our sexual desire and drive. As in Elblanco's work on the unconscious as an infinite set, a reflection of the sexual intercourse of a female individual is visible.

> *…When I had all these sensations high up, I seemed to be alone. This is rather funny. I seemed to be completely alone, which is very strange because all the time I was completely aware that I was with him, and giving way to a strong impulse to dig my nails into his back. I felt very close to him. And I was alone. It is funny, I was alone and yet I was with him. When I say alone I mean the only person on earth.*

The experience of temporary isolation is, in other words, in its complete simplicity, probably the most natural phenomenon a human can observe, which is retractable to the awareness that the human being is from the beginning on a semi-isolated force that constantly dialogues with the environment while generating one's own imagined reality and the ability to understand the perceived in itself.

The temporary stagnation in individual isolation may be perceived as parasitic, but it is a natural procedure that accompanies the human being in every interaction with its surroundings. Semi-isolated from the environment, the human generates meaning and handles every perceived stimulus as a potential *Gegenstand* (object) of interest. However, the danger is the monological abuse of this ability that can later devolve into radical thoughts denying the individuality of others. Another human can be an object of interest but is not only an object without personal needs and desires. This abuse can also be retraced by the social perspective toward the unnatural or unfair linked to the parasites or to other humans -with other priorities and needs as the individual in *Hikikomori* state-, which underlines the I-scream as a central inner process step that triggers drastic changes in inner voices or social voices, impacting the existing homeostasis after an experience of *Gestalt explosion* in the meaning-perception and -generation of individual(s).

## Conclusion: Another *Kind of Parasite*

It may be crucial to remember that the process behind the phenomenon *Hikikomori* is only an example of parasitic coexistence, whereby we as humans have quite a well-constructed *Lebensraum* for parasitic coexistence that is systematically integrated in our society and has in common context a positivistic *Gestalt*. A simple example may be offered in the contrast context of *Hikikomori*, the maximal social exposures such as the *Hollywood Oscar Ceremonies*, or the Superbowl, or any other public awards ceremony. On this occasion the *parasitic nature* of the phenomenon can be especially found in the need for social attention and the active need for the observers to provide a certain amount of time. The quality and support of such shows is based on the extraction of vital materials from the host — in this case the audience — that in contradiction receive the experience of balance and variety in their everyday life. Without an audience the *Ceremonies* would be meaningless and could not be developed further or could not even exist. It is an example that is less projected onto individuals but inhabits the systematic *Gestalt* of parasitism, emphasizing that we need to extend our understanding of the so-called bad parasites.

Wherever we are confronted with the construction of a word such as parasites, if in a scientific context, in common speech, or in poetic representations, the meaning we are confronted with is always diversed, not fully matching with each others meaning. It is a different and at the same time an essential collective meaning that we need to be aware of, whereby its use and its role from our perspective as observers always need to be opened up for extensions and reflectivity — what at one moment seems to be avoided can change in its value and can be valuable for the future development of ourselves and our communities.

In the particular context of the *Hikikomori* lifestyle, the parasites' everyday life normality has two central values that need to be evaluated as crucial take home messages.

> *The first take-home message* is that through this understanding of *positive* parasitic coexistence, the awareness of what seems *mind-blowingly* different can in the end only shift in nuances from our everyday life. An awareness that the scientific need can lead to central positioning shifts, introducing new interpretation approaches and required infrastructure adaptations for an optimization in our understanding and potential benefits from the phenomenon.
>
> *The second take-home message* is the new understanding of received material from the phenomenon. We can emphasize, for example, through the organic metaphor of parasitic resemblance the potential of the current and future need for such temporarily selective micro-isolations, which allow us to see how such a lifestyle can be realized and impact ourselves, under which conditions such a process is initialized and needed, and how we can optimize such behavior in the future, *first collectively and second for individual improvement*.

## Dialogue: *Researcher* and *Parasites*

*The following sub-chapter is based on dialogical material that has been gathered during the review and reviewing process of the volume, whereby externally received information will be noted as "Observations or questions of a co-researcher."*

### *Observation of a Co-researcher (1)*

> In Italy, young adults do not seek to leave their families until they have found a stable partner and created a family of their own. This is where the term "*mama hotel*" comes from, as those adults enjoy all the benefits of living at home (child-like) and also experience all the possibilities of adulthood.

A beautiful example of how certain phenomena can be interpreted differently, depending on individual and social cultural diversion. It is fascinating to take into consideration that parasites are not simply a construct of invasion but are clear example of a full spectrum of potential inter-behavioral coping methods. How we handle our environment is strongly connected to individual experiences over time, whereby the final touch is always contributed by the individual self generated over

time — a *Gestalt* that extends the layers of experience making based on the central positioning in observation and reflection toward the experienced moment and results in the potential of a unique behavior-interpretation act. The human is not like a parasite, and vice versa, but both (in group generalized) lifeforms are organic constructions that interfere with each other in a co-habituated environment. An occasion that results in a central state of behavioral resemblance based on the current individual — in context analysis — results in positively/negatively conducted interpretation of the other.

In short two layers have to be conscientiously reflected. First, it can be seen as parasitic that young family members stay by their families until they have found a stable location where they can stay in a desired symbiosis) based on the awareness that they could stay longer as the family would expect, teaching the child enough skills to allow it to survive on its own while experiencing the moment as insufficient. Second, the same state can be seen as an important step in the younger generation to grow up[8] into a new environment, while remaining aware of the connection with their family. It is an alternative example that underlines how parasitic behavior is not a treat on its own but is strongly dependent on its context and can represent a clear infinity of *positive/negative* connotations — remaining strongly related to everyday life coping methods such as *childcare, work, and partnership* cultivation.

## *Observation in Co-Contributing Researchers Work (2)*

> *Isepal's allegory poem showed jumping between different parts within a session. Here, further insights into the ambivalence dynamics of clients might emerge. Here, it seems particularly exciting to look at the organic allegories of the growing plant and the decomposer. Both allegories are independently of each other organic related — plant (flora) and animal (fauna) — inner parts. They symbolize the ambivalence between the Inner Children and the Inner Adult.* (Günther, 2023, p. 14, pp. 6–11)

On this occasion I would also like to underline the strong connection between the *case of Isepal* (Günther, 2023) and my theoretical work on parasites in the context of *Hikikomori*. The human being is in its complex but fragile form a being that follows the certain desire to exist in the most suitable environment-self symbiosis, whereas the freedom of action of such an individual is restricted to their "own current abilities," "their own precision in concluding" (what behavior results in what kind of future) (Valsiner et al., 2021) and in "the ability of *how* to extend the own skills, by using their own resources" (creativity) (Campill & Tsuchimoto, 2022). The diversion of inner parts in Isepal (Günther, 2023) is a leading point toward over-inner development as a human being over time and represents the awareness that known behavior can change its influences (force and direction) and so behavior that once would be seen as negative — parasitic — can become strongly recommendable;

[8] An individual depending on construct that is often used in a social context but retains a certain unawareness of its meaning interpretation by other individuals.

meanwhile, the negative connotation stagnates and blinds us from such a possible coping method. Isepal needs the inner ambivalence, as every human does, whereas this ambivalence also underlines the need to connect with other multiple positions such as with her consultant, which can help her to clarify her own potential behaviors, which have been hidden in past positions. Furthermore, in Isepal's case we can observe a potential use of organic metaphorical tools, microscopic or nanoscopic frames of a moment, of an experience. Such moments can be observed (consultant) and verbalized (individual) in time-framed observations, of experiences, of a moment where fundamental changes have occurred, milestones for the individual and environmental development, a process that allows us to observe and to explore the impact of the inner *nano- and micro changes.*

## *Extending Thoughts to the I-Scream and Ice Cream Pun*

It might be of interest to the reader to receive a certain extension of the context of how the I-scream phenomenon has been named and why the Ice cream has been selected as memorization help/pun. I-scream already underlining the focus on the "I" was essential for the construction of the expression, whereby a certain understanding was also needed to be directed toward the tension that is followed by such an experienced dissonance between expectations and reality after overcoming a rupture. The pun is directed toward the possible verbal misunderstanding that can occur based on the identical pronunciation of I-scream and Ice cream, which is supposed to underline the challenge we as humans are confronted with to elaborate such unpronounceable feelings. Furthermore, it is supposed to be a pun that can also be related to the I-scream's relation to the *Gestalt explosion* (Bisgaard et al., in press).

Remember the experience as a child where you ate a delicious ice-cream too fast and you experienced a horrible headache? In other words, this process-pun emphasizes that the I-scream announces a change with after effects that must be considered before accepting or adapting the change made.

## References

Arjoranta, J. (2019). How to define games and why we need to. *The Computer Games Journal, 8*(3), 109–120.

Bergonse, R. (2017). Fifty years on, what exactly is a videogame? An essentialistic definitional approach. *The Computer Games Journal, 6*(4), 239–255.

Bisgaard, C. H., Campill, M. A., von Fircks, E., & Valsiner, J. (In Press). Layered attunement: Internal dialogues of intersubjectivity. In *Dialogic perspectives in times of change*. Oxford University Press.

Campill, M. A. (2021). Towards a wholistic model of identity: Why not a meadow? *Integrative Psychological and Behavioral Science, 55*(1), 112–127.

Campill, M.A, & Jankosek, N. (In Press). *More than a compromise: Inter-relation of a new cultural sport*.

Campill, M.A., & Tsuchimoto, T. (2022) Moving up the stream: Beyond resistance to counter move. *Integrative Psychological and Behavioral Science.* https://doi.org/10.1177/1354067X221111452

Campill, M. A., & Valsiner, J. (2021). Spiral and helical models for psychology: Leaving linearity behind. *Human Arenas*, 1–21.

Campill, M.A., & von Fircks, E. (in preparation). The pluralistic self. To be submitted to *Journal of Constructivist Psychology.*

France, P. (2014). *Hermits: The insights of solitude*. Random House.

Guenther, L.P. (2023). The story of Isepal — A case study allegory analysis. Springer Series Theory and history in the social and human science: The *Organic metaphors in theoretical models of social sciences* (pp. 215–240).

Hermans, H. J. M. (2001). The dialogical self: Toward a theory of personal and cultural positioning. *Culture & Psychology, 7*(3), 243–281. https://doi.org/10.1177/1354067X0173001

Jennings, S. C. (2015). Passion as method: Subjectivity in video games criticism. *Journal of Games Criticism, 2*(1).

Kato, M. (1966). Seishinshougai ni okeru jireisei (Caseness in mental impairment). *Seishin Igaku (Clinical Psychiatry), 8*(7), 523–524.

Kondo, N., Sakai, M., Kuroda, Y., Kiyota, Y., Kitabata, Y., & Kurosawa, M. (2013). General condition of hikikomori (prolonged social withdrawal) in Japan: Psychiatric diagnosis and outcome in mental health welfare centres. *International Journal of Social Psychiatry, 59*(1), 79–86.

Paul, C. A. (2018). *The toxic meritocracy of video games: Why gaming culture is the worst*. University of Minnesota Press.

Saito, K. (2010). *Hikikomori no hyouka-shien Ni kansuru gaido-rain* [Guideline of Hikikomori for their evaluations and supports]. Ministry of Health, Labour and Welfare.

Saito, T., & Angles, J. (2013). *Hikikomori: Adolescence without end*. University of Minnesota Press.

Schiele, E. (1912). *Eremiten [sign of painting]*. Albertina Museum.

Stoll, N. R. (1947). This wormy world. *The Journal of Parasitology, 33*(1), 1–18.

Tateno, M., Park, T. W., Kato, T. A., Umene-Nakano, W., & Saito, T. (2012). Hikikomori as a possible clinical term in psychiatry: A questionnaire survey. *BMC Psychiatry, 12*(1), 1–7.

Teo, A. R., & Gaw, A. C. (2010). Hikikomori, a Japanese culture-bound syndrome of social withdrawal? A proposal for DSM-V. *The Journal of Nervous and Mental Disease, 198*(6), 444.

Valsiner, J. (2021). *Hyper-generalization by the human mind*. Psychosozial-Verlag.

Valsiner, J., Tsuchimoto, T., Ozawa, I., Chen, X., & Horie, K. (2021). The inter-modal preconstruction method (IMPreC): Exploring hyper-generalization. *Human Arenas*, 1–19.

# Biocenosis of the Self: The Dynamic of Relationships


**Marc Antoine Campill and Enno von Fircks**

## Prelude

As starting point, we will use the concept of monocultures, a phenomenon that is in opposition to the natural flow of life. As previously underlined, the metaphor is grounded on the fact that psychological features, much like organic environments, are open systems. *So why and how* do we transfer the monoculture metaphor in psychological or cultural systems? Therefore, we first need to understand the theoretical framework of the natural metaphor in use.

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## Open Systems and Their Interrelatedness

Open systems[1] are an interesting phenomenon. The very essence of an open system is its potential for development—granted by the dynamics of exchange relation with environment. Development only comes into being when a particular organism system to another system that constitutes its environment. A plant can only grow because it is interlocked with the lawn. Still, the lawn is not enough to describe the actual development of the plant. Something more than this simple connection is required. The lawn is connected to the biosphere. It is interlocked with complex cycles of rain and drought in order to grow.

We can add another layer of complexity to our open system example. Bees do pollinate specific plants while looking for nectar. It is here that they do pollinate specific plants, which then triggers the development of seeds and fruits. Bees and plants are in an interdependent relationship with each other both being important for their further development, their joint development. Here we are able to realize that open systems do grow in time—and by definition, they can never grow in isolation. They grow in interdependence.

In the present chapter, we want to highlight the dangers of an open system ignoring its interrelatedness with other systems—leading to loss of potential for growth. We start our elaboration by showing the dangers of a forest monoculture and wanting to expand our insights about open systems onto human beings incorporating specific roles or I-positions in specific times.

## The Monoculture

Monocultures can be highly dangerous for ecosystems. Especially for those organisms who rely on a heterogenous kind of vegetation. Wood farmers are part of that who want to cultivate sustainable forests in order to sell wood over a long period of time without destroying the entire forest.

A farmer in one of the authors' region in Germany (Siegerland) has sleeping problems because he is concerned about the forest of the region. What happened to the forest? In 2007, a hurricane named *Kyrill* destroyed entire forests in Germany in one night (Schulz, 2017). How were these forests structured? Before and after the storm, there were many monocultures of spruces.[2] During the storm, the monocultures got

[1] The "*open system*" is related to the physics-based understanding that energy/forces are floating through space and time, without confinement. Energy is always moving freely in space while reacting/interacting with opposing or passing forces. Open system in the psychological context is related to exactly this understanding by underlining that the individual's meaning making process is similar to a strong energetic stream while being confronted with endless collisions/ruptures of other streams. The mind is as open as the energy flow in biological systems, and the decisions behind the generation of meaning is complex process that *can* change tremendously by the smallest collisions (with other meaning positions), which makes its study a challenge for science (Von Bertalanffy, 1950).

[2] During the Nazi time and after its collapse, tree growers saw in the spruce monocultures the only possibility to satisfy the need for building material as well as reparation goods (Jäger, 2017). The collapse of the forests is therefore embedded in macro-social conditions.

**Fig. 1** Dangers of a Monoculture

destroyed more heavily and easily due to the nature of the spruces than mixed forests (Jäger, 2017). However, some tree growers did not want to understand the advantages of the mixed forests, and there were some who wanted to balance the monetary loss they faced during the hurricane as fast as possible. Consequently, they grew monocultures of spruces being able to sell Christmas trees in a short period of time (Hermsen, 2014). Around 75% of the Christmas trees in Germany come from exactly that region (Jäger, 2017). However, during the last years (hotter summers than usual), the new monocultures as well as the old ones having resisted the hurricane but being weakened by it were and are under the constant threat of the *Borkenkäfer* (bark beetle) that are first secondary vermin because they attack weaker trees. Essentially, they become primary vermin if they undergo a mass reproduction and are then able to attack healthy trees. The farmer having sleeping problems guessed that in two years we will have in many places of that region fallow land, such as in the first illustration (see Fig. 1). Monocultures are thus a serious threat to entire forests.

## The Monoculture and its Absence of Relationships

But what is a monoculture and what are its consequences? Let us draw for that on Magoroh Maruyama (1963, 1974) and his theory of mutual casual loops (relationships). Maruyama uses a simple example to illustrate his theoretical model that liberates us from a simple causal understanding of A causes B. Let us take a farmer who decides to buy farmland in a structurally weak region. He tries to cultivate it. Soon, other farmers get curious what farmer A is doing, there. They realize that the ground is fertile enough to do agriculture and buy the remaining farmland. After a

year, about 30 farmers have settled in that region. After a while, the farmers ask their wives and children to join them. Now, 150 people are living in the former abandoned region; kindergartens and schools open, and a big supermarket chain decided to install a small store within that region. The kids grow, new needs emerge, and social and sport clubs open up to organize social life. A farmer restructures his old barn for opening up a cinema. Now, the formally abandoned land has turned into a small town.

Now, imagine the situation if only one farmer had tried to cultivate that land; not only one person would have benefited from the fertile ground, but the emergence of collective needs would have been made impossible. His family would have been likely to follow him for a year but might have left after a while because there was no kindergarten, school, social and sports club, etc., to organize life apart from farming. *A monoculture does not enter a process of mutual causal relationships because there are no relationships at all*. Mutual causal relationships and feedback loops that ensure growth can only happen if there are at least two organisms coming together.

Let us apply that to a real-life example: Deer that usually live within a forest, leave their habitat, and expand it onto the gardens of families. They enter some gardens, while others do not attract them. Often it is witnessed that they intrude gardens with a heterogenous vegetation, e.g., with a high variety of buds, leaves, and herbs (see Fig. 2).

They are attracted by a polycultural system that satisfies their needs richly, whereas monocultural gardens and forests do not attract them. An ecological network grows, and the deer's feces function as fertilizer for other plants to grow, e.g.,

**Fig. 2** Deer in a heterogenous vegetation

berries, seeds, nuts, herbs, bushes, and so forth. These, for example, are important food sources for birds—or for other deer—that will be pulled into the garden, too. The natural enemies of these birds will be attracted to that system and will join the network. And the network grows. Within a monoculture, a garden with only one type of bushes or berries would not show these signs of vital living: such a network with different plants and animals would be impossible to imagine, and henceforth, growth would be rendered difficult.

The reason is well described by Maruyama. *There are no mutual causal feedback loops that catalyze each other's growth because there are no potential relationships to emerge*. The formula of Maruyama is easy*: No mutual causal relationships if no relationships at all.* The monoculture per se is very poor in relationships between existing plants and animals and will henceforth not attract other species to join the ecological network. The absence of such relationships or of mutual casual growth—which feeds into the growth of the whole network—is an important threat for the potential collapse of a monoculture. Before diving deeper into such a network, let us illustrate how a mutual causal network—with the above-mentioned feedback loops—works (see Fig. 3). A heterogenous vegetation (within a garden) attracts some deer, the vegetation is catalyzed in its growth and diversity, e.g., by the feces of the deer, and the relationship in this example is bi-directional or symbiotic. However, we have to deal with a whole network. The deer's feces might function as a fertilizer for the synthesis of new plants, and C emerges (see flash). Birds might be attracted to the ecological network because of a modified vegetation, and D emerges. However, the birds might eat some of the previous and new vegetation (A and C). The bird's natural enemies' step into the network too (E emerges, not depicted), like a cat. The cat, however, sleeps in the bushes where the deer get their food (A and C); the deer might be afraid and leave the ecological network.

This example is of course a simplified version of a network that works under the premise of mutual causal relationships, and further connections can be imagined. However, the complex systemic relationships within a network can be easily shown in such a way.

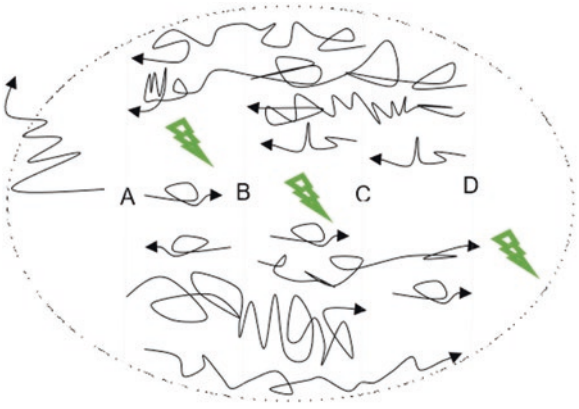


**Fig. 3** Network of Mutual Causal Relationships

## Why Did we Start with Monocultures?

As we can see with the previous underpinnings, a monoculture is not necessarily unnatural, but it can easily become counterproductive for the future development of the biotope. The biodiverse pool of potential inner elements—plants—allows nature to adapt to challenges and struggles with which it is confronted. A stable diversity allows an extended field of opportunities. A specific action or change within a biotope changes the individual and collective habitat of millions of lifeforms and results in extremely diverse and unique environments, with unique coping mechanism. A monoculture stands for a temporary positioning, in which this diversity has not become possible, based on, for example, human beings cultivating only one kind of trees in it, while destroying or poisoning the others.

This phenomenon is equivalent to human being experiencing mental distress confronted with stressors that results into certain counter measures. Those countermeasures flow into an experience of temporary security that we may like to preserve, but over time can result in constant unconscious poisoning of the self and its shell (environment and habitat). So, *what is a psychological monoculture*? As already underlined previously, there is no such thing as homogeneity and heterogeneity, both lie on a continuum. Yet, the movement toward the monocultural lifestyle is more likely to flow into destructive consequences as growth is inhibited. For example, a sports lover is a position that might help to relate with people that do have similar hobbies or attractions. Yet, it gets complicated if such a position shifts to the foreground without actually shifting to the background again. In a nano time, framed instance, this development can be seen even as useful, as, for example, in the case of flow. However, the danger lies in the duration over time, where the positions are not neglected anymore, but start to die out—as for example contact with family members and hobbies.

## The Forest as Monocultural–Polycultural System

However, let us return to the bark beetle problem and its implications for our monocultural–polycultural network.

Here, we have to draw upon a particular interesting paper analyzing the dangers of monocultural forests written by the geographer Edwin Fels (1940). We want to highlight here the historicity of the paper that should not deceive us to extract the systemic generalization of Fels' analysis with its focus on the systemic emergence mechanisms of particular issues. Fels did apply such a focus that is the reason why his paper is of much value for the present article. Let us see how Fels tracks back the learning process that led into the apperception of the monocultural dangers. The monocultural dangers will be of high use in order to analyze its potential threat within the self of a person:

> Auf die Schäden der Monokultur wurde man zuerst aufmerksam, als man bei vielen seinerzeit neugegründeten und gleichartigen Nadelholzbeständen, besonders der Fichte, nach anfänglich gutem Gedeihen einen dauernden Rückgang der Leistungsfähigkeit und damit der Erträge und Einnahmen feststellte. Man führte das mit Recht aufzunehmende Verschlechterung der Böden zurück. Ferner zeigte es sich, dass die zwangsläufig uniformierten Wälder einem viel stärkeren Schädlingsbefall unterlagen als Mischwälder oder schon von Natur aus einheitlich, aber doch verschiedenaltrig gewesen waren. (Fels, 1940, p. 253).

> The damages of the monoculture were primarily perceived when it became clear that the newfound coniferous wood of the same age, especially the spruces, after initial successful striving, were declining in their efficiency, thereof in its earnings as well as its income. Correctly this was perceived as the cause of a more deteriorated ground. In addition, it was shown that the uniformed forests have been more of a target for various vermin as have been the mixed forest or forests that are uniform but different in age.

Fels explain that these monocultures are more likely to get damaged by forest fires as mixed forests. In addition to that, the mixed forests are also more protected from storms and hurricanes as we have pointed out in the above-mentioned paragraphs. Thereof, we are able to point out an interim conclusion. *The mixed forests are more resilient than monocultural ones.* However, we have to ask ourselves what are the primary reasons for this higher resilience? What biological or chemical factors enable a mixed forest to be firmer? Fels (1940) does not wait to provide us with an answer: He explains that the biocenosis within a monocultural forest is highly deteriorated.

Biocenosis means here the group of plants, animals, microorganisms whose members or their agents (representatives) are interdependent and form thereof an ecological network (*Wirkungsgefüge*). This ecological network must also be understood in its territorial or grounded realization. The space that is the primary arena for the biocenosis includes for the living network not only plants and animals on the surface but also the highest crowns and the deepest roots as well as the most particular part, the ground with its billions of microorganisms. As we all know from our biology classes in high school or beyond, this symbiotic community is in an original but fragile equilibrium. Within this equilibrium, all members do have a particular role for the general network whose significance for exactly that network can only be guessed (Fels, 1940), *but the symbiosis is the crucial factor for the health, growth, and reproduction*. Again, let us look at Fels:

> Setzt nun aus irgendeinem Grunde, der eine einseitige Bevorzugung oder umgekehrt Beeinträchtigung wichtiger Mitglieder der Gemeinschaft zur Folge hat, jene Kontrolle aus, so ist die Harmonie gestört und es stellen sich Krankheiten und Schäden ein. Solche Gleichgewichtsstörungen liegen im Wesen der Natur selbst und sind vor allem durch das Klima bedingt. (…) Im Naturwald setzt da aber sehr rasch eine natürliche Korrektur ein, so dass der Ausgleich sich bald wiedereinstellt und die Gesamtheit nicht leidet. Der vielgestaltige Urwald kennt keine großen Wald- und Schädlingskatastrophen. Viel schädlicher sind die von Menschen verursachen Gleichgewichtsstörungen, der z.B. tiefwurzelnden Buchen und damit alle Funktionen des tieferen Bodens ausschaltet und seichtwurzelnde Fichten stehenlässt oder anpflanzt. (Fels, 1940, pp. 254–255).

> If out of any reasons that causes a unilateral preference or inversely an impairment of important members of the network, then the general control mechanisms of exactly that

> network are suspended at the price of disturbances of the network's equilibrium. However, such deteriorations of the equilibrium happen naturally and are primarily caused by the climate. (…) The natural forest knows how to correct rapidly for that disequilibrium in so far that the whole network does not suffer. The multiple-gestalt virgin forest does not know bigger catastrophes of vermin. Much more harmful are the imbalances caused by human being such as the growing of deep-rooted beeches or the shallow-rooted spruces.

In order to understand the quote of Fels, we have to look again at the natural forest. This natural forest is by nature mixed in tree species as well as age and can thereof explain the bigger resilience against primary vermin or other dangers. However, let us now look at the implication of the quote of Fels. *If the monocultural forest cannot resist in the long run the endangers that attack it, then the whole biocenosis, and now we can also say environment, is impaired and provides the vermin as well as the beneficial insects with a new environment or reality wherein they can strive*.

One of the bigger changes happens within the ground. The monocultural forest alters thereof the characteristics of the ground (Fels, 1940). Wittich (1937) specifies these characteristics in regard to the humus (mold) and recognizes a more complex pattern. Monocultures of larch as well as mixed forests (with larch) do not show a high-quality humus when the ground by its nature is sandy and dry. However, if the larch encounters monoculturally or mixed a more solid ground, the quality of the humus increases. Wittich (1937) specifies a paradox that can only be solved when studying the conditions of monocultural forests and mixed forests: He found that under a biologically unfavorable type of wood as well as an unfavorable mixture of woods on a solid—and rich in mineral—ground, the state of the trees is more solid than for a favorable type of wood as well as for a favorable mixture of woods on a non-solid ground. Wittich (1937) also reports that not all mixed forests—cultures—are per se better than monocultures. It highly depends—in the case of the larch—on the type of wood that is mixed with another tree species (pp. 12–13). Wittich did point out that the economic advantages of the larch do come with a weakness that endangers the ground. His significant contribution lies in finding the right tree species to mix with the larch that does not weaken the ground as in a monoculture or in an unfavorable mixture of woods. Let us look at the conclusion of Wittich (1937):

> Es wäre gesamtwirtschaftlich durchaus unzweckmäßig, etwa auf den Anbau der Lärche zu verzichten, nur weil ihr Einfluss auf den Bodenzustand nicht die Erwartungen erfüllt, die man daraufgesetzt hat. Man kann aber die in dieser Richtung gewonnen Einblicke sehr wohl auch zum gesamtwirtschaftlichen Nutzen verwerten, indem man in richtiger Erkenntnis der Zusammenhänge die Lärchenwirtschaft so aufbaut, dass der ungünstige Einfluss auf den Boden möglichst abgemildert wird. (…) Daraus ergibt sich zwangsläufig die Forderung, sich auch bei der Wahl der Holzarten freizumachen von bestimmten waldbaulichen Rezepten, die der Vielgestaltigkeit der Verhältnisse niemals gerecht werden können. Man soll stattdessen versuchen, auf Grund klarer Kenntnis der örtlichen naturgesetzlichen Bedingungen in jedem Fall die Einzelwirkungen gesondert einzuschätzen. (Wittich, 1937, p. 19).

> Macroeconomically, it would be inappropriate to renounce from the cultivation of larch, just because it did not meet the expectations of its influence on the ground. What we can gain from the insights is that, by drawing on the complex interrelations of the larch economy, we can moderate the negative influence on the ground. (…) This means to free ourselves, when we take a decision for a type of wood, from drawing on simple recipes that

> cannot do justice towards the diversity of conditions. One should try instead – on the basis of clear knowledge of the local and lawful natural conditions – to observe and evaluate separately the individual effects.

Fels (1940) clarifies that such *a universal remedy approach results ultimately into the destruction of the biocentric equilibrium of the forest*. This is the reason why Fels always comes back to the fact that—unlikely but true—monocultures can be equally profitable in the absence of bigger endangers. *However, Fels is not getting tired that a mixed forest* per se *increases the harmony of the forest, and therefore, the appropriation of the ground through different deep-rotten trees, different ramifications of the crowns, and different species of plants that make it more likely for animals to join the ecological unity and to be part of the equilibrium*. In a noticeable closeness to Wittich (1937), Fels underlines that the knowledge of conditions toward the climate, the ground, surface, and location is an ever-changing, dynamic complex of questions the tree grower needs to respect. The most important indicator for successful growth is for Feld and Wittich the evaluation of the ground in its historicity. This means that the tree grower must get access to the knowledge of the past of the forest, if it has been a natural (mixed) forest, when it did eventually change from its natural status to a changed human caused status with several constraints:

> Der Erfolg hängt ab von den je nach Holzart und vor allem Standort rasch wechselnden Bedingungen. Kaum eine andere Wirtschaft erfordert so individuelle Behandlung wie die des Waldes. (…) Die neuen Maßnahmen bedeuten eine Rückkehr zur Natur. (…) „Der Forstmann der neuen Zeit ist nicht nur rechnender Wissenschaftler, sondern gleichzeitig in enger Naturverbundenheit bestrebt, den ewigen Gesetzen des Waldlebens nachzuspüren und auf sie seine Maßnahmen zu gründen". (Fels, 1940, pp. 261–262).

> The success of the forest depends on the type of wood and depending on the location on the dynamic conditions. Almost no other contemporary science requires such individual treatment as the forest. (…) The new measures mean a return to nature. (…) The forester of the new time is not only a calculating scientist, but simultaneously in close connection to nature, challenged to discover the eternal laws of the forest on which he founds his interventions.

What does all that have to do with Psychology? What does it have to do with ourselves?

We want to point out that the *human Self* works forest-like under the premise of the biocenosis. And that the forest science is not the only one that requires such individual treatment. Psychology is among them, too. The self is not uni-dimensional or monocultural. It is often like a mixed forest multi-dimensional and polycultural (Campill, 2021).

## The Proculturation of the Self

The dialogical self-theory of Hermans (1999, 2001, 2002, 2003) is the missing link to the above-described paragraphs. It helps us to define a pluralistic self. Thereof, the self relies on multiple I-positions made visible and accessible by external

positions or external elements. It surely is not a simple role theory (Hermans, 1997) as some critics might insinuate. It works on the border of the liminal state in which the human being is thrown and tries to make sense of (von Fircks, 2021), the liminal condition of being. The I-positions I-as-a-worker nourishes, actualizes, re-defines itself only in interaction with the environment as with the external positions such as my co-workers, my customers, my work, my products, etc. But these I-positions are not static like the role theories (Hermans, 1997) suggest. The moment my co-worker approaches me with the question: *How did your preferred football club play last weekend*; he approaches me as a fan and makes it possible for me to answer him within the I-position I as fan of club X or Y. And if we face the reality of work in industry, in a bureaucratic job arena, then the little coffee breaks and time-outs are so essential because the worker gets not only acknowledged in his I-position as worker but in his complex being, so in multiple I-positions that make up for the complexity of his self respectively make up for not only one tree but one forest. One of the authors has pointed out elsewhere that a human being is more likely to realize himself into space and time, to call a place home if he gets the opportunity to realize his symphony of the self. And here comes the crucial link to the forest analogy. The pluralistic self in contrast to a monocultural self is more likely to appropriate or enlarge the multiple environments and is more likely to rely on a fertile ground that is a crucial condition for further growth of bushes and berries attracting other animals to step into the biocenosis and to become a part of it. Fels (1940) pointed out that in a monocultural forest there might be only mushrooms growing, which makes it less likely for a variety of animals to become part of the ecological unity of the forest.

## The Role of Cultural Psychology: An Example

For that, we would like to draw on the action theory of E.E. Boesch (1991, 2002): An action field is structured by goals and needs of a person. Here, the environment unfolds specific valences (Lewin, 1926) in regard to that need. If a person gets hungry, the environment will be checked by him/her of eatable things. Even food that is usually interpreted as disgusting might unfold attraction here for the person. These environmental cues do gain positive valence. They become neutral once the goal/need is satisfied. This is also applied for more psychological needs. If a person wishes to become a cleanlier person, s/he perceives her environment differently than a person who does not express that need. S/he will tidy her room accurately and pay sufficient attention to anything that might turn the room into a mess. Our needs change the valences in our environment, and by these valences, we interact differently with our environment. If I clean up my room, my goal or need is satiated, and I can turn to a different activity. The dynamic perspective is indispensable, here.

Now, with the dialogical self-theory, things get complicated. Every I-position shows a specific action field that is structured by needs and goals. These needs and goals might converge or diverge at different times. It is especially in the latter case

that dominance of one I-position above others happens to take place or even the emergence of new positions builds up on former ones.

Let us look at a specific example. A father is worried because her daughter has her first boyfriend. He fears that they might get intimate too early. But this is not the only voice mumbling in his head. The father is also a loving husband that got to know his wife early on, too. They also got intimate at a very early age, and they do not regret anything. On the contrary, both were sure about their feelings and were glad they took the next step in their relationship at this time. So, there are not only worries in his head but also empathetic understanding for his daughter. But there is even a third position that aggravates his dilemma; he is also a brother and has talked with his sister openly about early relationships and intimacy. And they too reached in multiple conversations an understanding of being able to experience intimacy early on not only without regrets but with a lot of positive emotions. So, the father worries about his daughter of getting hurt and about having regrets afterward, whereas the loving husband and brother position share a high amount of acceptance for early intimacy (see Fig. 4).

The conflict might be circumvented by one of the positions' dominances; however, such dominance is likely to break up again and cause confusion because the initial conflict is not acted upon. However, the synthesis of positions is likely to create a sustainable solution for the conflict at stake. But how does such a solution look like? The forces of father and brother might join; the goal of caring is actually alike; brother and father might be synthesized into the position of I as brotherly father within which the father might communicate to his daughter his worries and fears but also grants her freedom to make her own experiences. Here, important goals are united within a newly created position; both goals can be reached in the dialectic synthesis of a new I-position. Many people report (Hermans, 2001, 2002, 2003) confusion when dealing with different positions and goals that might be contradictory, in the very beginning. However, we should perceive such a perspective not as negative or maladaptive; on the contrary, multiple I-positions enrich

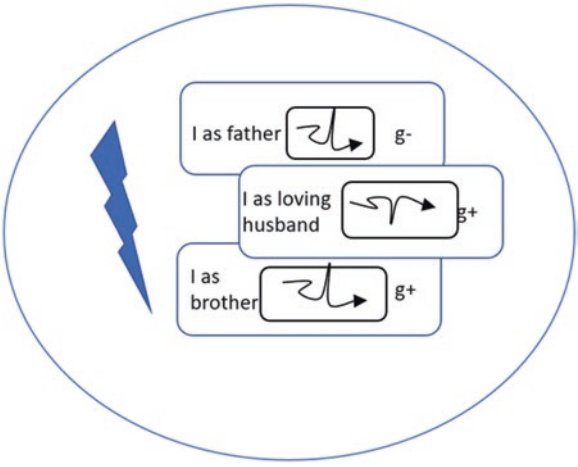


**Fig. 4** Central I-positions and their action converging/diverging fields

perspectives onto an object or situation. And it is within the relationships between these positions, that new ones can be born that do justice to the complexity of a conflict.

Let us come back to our daughter/father issue and concentrate on the systemic relationship (see Fig. 5): The girl wanting to get intimate with her boyfriend fears to disappoint her parents when getting hurt or having regrets. However, the girl in relation to her boyfriend thinks that she is ready to do the next step. This perspective is confirmed by her third position I-as-friend of XY. Together with this friend she discussed the pros and cons, and the dominant perspective becomes to take the next step as getting intimate is for them important to grow up. So, we see in our little example that the young adult is driven toward as well as pulled from the specific goal. In our example, it would be counterproductive if only father and daughter would meet in the absence of all the other I-positions. Here, the girl would simply refrain from her goal pursue. This of course circumvents the concrete issue at stake, right in that moment, but it does not do justice to the underlying conflict that remains unaddressed. That the father can approach his daughter from a different perspective is purely adaptive as he is able to realize within that position the importance of her goal. He is then likely to understand the dilemma his daughter faces and might help her from his very own experience when he faced a similar dilemma. In such a conversation, he might also be able to address his fears and worries drawn from his fatherly I-position without superimposing its goal onto the situation or he might—as we stated out above—build a new I-position that unites the previously antagonistic ones.

*In either way, the multiple I-positions make a diversified dialogue possible that addresses a conflict or issue wholly*. But what does that mean? What are the implications? People are known for their positions and perspectives, for what they are capable of contributing and are henceforth approached with a specific goal. We

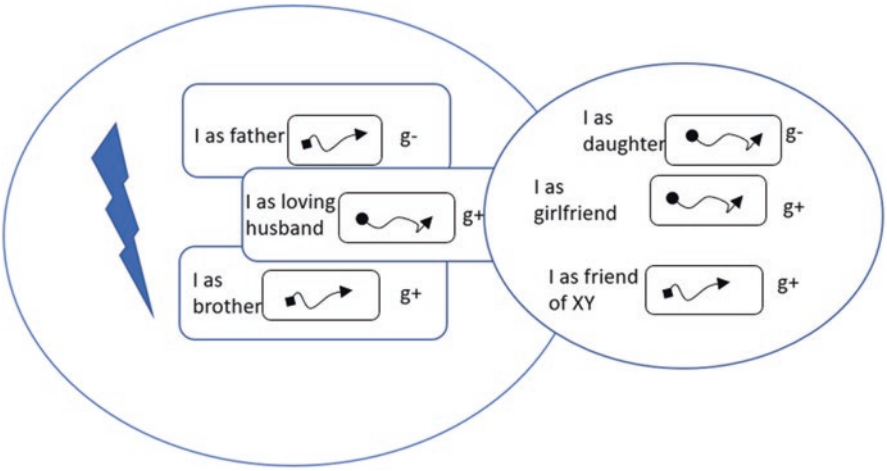


**Fig. 5** I-positions and their action fields in interpersonal dialogue

approach our bankers because we might want to get financial help; we go to our dentists to get our teeth proper; we go to friend A or B to ask for a specific recommendation. And let us now imagine how we will approach people if we see their pluralistic self, their different positions, and perspectives, so the ways how they could contribute to our lives. We would approach them differently. *The girl in our example would not ask her father for relationship advice, but she would ask him as loving husband and a dialogue were to be freed that would not have been possible within one single I-position.*

## On the Way Toward the Symphony of the Self

*Only the symphony of the self attracts multiple persons to go to the concert of the self*. This would be more difficult if there is just a solo concert of a clarinet or another instrument. Because of the symphony of the self, other persons are more likely to step in and to get touched by it as well as the I-positions get the chance to sharpen themselves through the contact with the external elements and positions. Again, this is biocenosis, *the biocenosis of the self*. And it is only by the high variety in the network of the self that flip-flopping and synthesis between multiple I-position are made possible. *The biocenosis of the self is therefore the pre-condition for the dialogical self.*

The mixed forest analogy shows another important component/advantage implicitly discussed in the previous paragraphs. It addresses the synthesizing qualities of the forest/self. *The mixed forests as well as the pluralistic self can help to prepare the ground for new structures or positions to grow by appropriating and enlarging the environment*. Yalom (2012) describes in ten stories about psychotherapy how often he pushes his clients into different communities as well as group therapy—whose members already spent different amounts of time in the group (note here the closeness toward the forest analogy where a forest culture is more likely to be healthy when trees of different age are planted)—to discover hidden or buried positions of the self that let the clients experience the depth of human contact and thereof life.

## The Pluralistic Self in Therapy

To apply this concept, we want to draw on a psychotherapeutic case of Yalom (2012), more precisely the chapter *In Search of the Dreamer*. The man seeking therapy has clearly difficulties to get into touch with his multiple I-positions and perceives himself mostly as sexually performing husband toward his wife. Yalom describes that he cut himself off from his deeper feelings by not showing any clear emotions to his retirement as well as the basic problems of his marriage. Once reactivating positions such as I as son (even if the father of the man already died) or I as

emotional husband, I as retiring person and embracing these positions, the man could acknowledge the depth of his life as well as realize how he fixed her wife in a goddess position to take care of him and all his problems. Once the wife perceived all the changes of her husband, once she saw the depth of being he was moving toward, she realized how incarcerated she has been by some fixed positions on her own and decided consequently to step into the world, to travel and to take several extensive college courses (Yalom, 2012, pp. 230–270). Now, she was not only a wife anymore taking solely gratification in the satisfaction of her husband's sexual desires but in acknowledging him in all the other complex positions he threw himself toward. Many psychotherapists as well as some recipients might feel genuinely the truth of the above-mentioned paragraphs when a person after a long-time marriage does realize that she has only been a parent or a partner but that so much of her potentiality of other I-positions was never made use of. Note here the absence of I-positions shows clearly that new positions could not be born, and therefore, life is only superficially explored. Again, *there are no mutual causal feedback loops that catalyze each other's growth because there are no potential relationships.*

## The Pluralistic Self in the Working Environment

Let us consider a second example. Let us imagine a store supervisor of a supermarket. Of course, he is a store supervisor the moment he works, interacts with his colleagues, answers a question of a customer, and prepares the work plan for the next week as well as the vacation schedule for summer. However, even if he works in the supermarket, he is more than the simple I-position I-as-store-supervisor. For example, he is also a cross-fit trainer besides his job at the supermarket giving rise to the I-position I-as-cross-fit-trainer. Maybe he meets some of his cross-fit clients at the supermarket and talks with them about their recent progress. Maybe, there is a customer of the supermarket who asks questions about power food (high in protein) that he can answer easily.

The store supervisor is not fictional as one of the authors worked in his supermarket. Essentially, the store supervisor explained that before getting the job he is doing now, he worked as a store supervisor for another supermarket. However, the story how he got to his new job is highly interesting and is only to be understood against the background of the self's biocenosis. He got to know his future employer as he was doing cross-fit with him. His future employee was his cross-fit client. Here, they often talked about food trade and grocery-related business and began to appreciate each other's perspective. Given some time, his client asked him to join his supermarket and to become eventually his store supervisor. And he accepted after some time. Interestingly, one of the authors often made use of the cross-fit I-position, while he worked at the supermarket. Here, he often had clients asking specific questions about protein food, and immediately, he went to the store supervisor who was then able to answer the question, fully.

The above-mentioned example shows first that one I-position I-as-store-supervisor benefits highly from another, more peripherical I-position such as I-as-cross-fit-trainer that becomes central with particular semiotic markers such as the customer's question. This shows that the switching between the I-positions is only partially important. More important is that an I-position can draw upon particular experience of another more peripherical one and stimulate the influx of potential solution strategies. Second, the example shows how a central I-position can catalytically facilitate the genesis of a new I-position. Third, if the store supervisor might lose interest in working at the supermarket, he could go back to his job as cross-fit trainer, which shows then a particular kind of resilience. We believe in tradition of Fels (1940) that *we must analyze more thoroughly the cultivation process of central I-positions that might give rise to a new structure of the self.* Here, we must investigate the interrelatedness of multiple I-positions that is the basis for their symbiotic interdependence and their resilience in times of crisis. The biocenosis of the self explains the dynamic relations between multiple I-positions as well as the potential emergence of new positions. It is therefore the foundation of the dialogical self-theory.

## Discussion

To introduce the concept of biocenosis for the psychological field of inquiry is of essential need. It helps us to see the potentiality of our very own development and how we might trigger it. If we take into consideration that Fels (1940) considered monocultures as more likely to get damaged by *stress*ors as mixed forests, the Self as open system operates under similar conditions. This leads to the awareness that a (self) forest is probably more resilient in a more diverse environment than in a deprived one. Characteristics can be found identically in the cultivation of the individual human being and his/her current self, which like a forest leads into a poly-dimensional networking. In its simplicity, an extended field of possibilities allows an extend field of possible developments.

It is essential to understand that tension is always existing and part of our identity as human beings. Therefore, a person must be understood as a pluralistic self, experiencing inner conflicts that have to be handled differently based on individually made experiences. In such situation, a decision for a certain position is triggered resulting into a shift of one's own priorities–cultivated by oneself over a certain time. By drawing on analogies, the particular tension field of a monocultural–polycultural self can be revealed and bound to the theoretical elaboration of how people deal with intrapersonal and interpersonal conflicts. Conflicts are the necessary drive for development. The monocultural spruces die—based upon conflicts with vermin—and open the space for a new cultivation or development. This comes close to Goethe's *die and become*. A biocentric self is aware of that Goethian perspective.

Biocenosis in the inner voice orchestra of I-positions can be understood as a multitude of diverged groups of voices (representing particular I-positions), who

interact with each other resulting in an interdependent *Wirkungsgefüge*. An equilibrium, where all inner positions have a particular role for the general network, is intra- and interpsychologically significant.

As Fels underlined, monocultures can be equally profitable in the absence of bigger endangers. However, the harmony of the current self, in irreversible time, can be linked to the forest-like characteristics of its appropriation of the ground through different deep-rotten opinions, different ramifications of thoughts, and different positions that make it more likely for the self to join the ecological unity and to be part of the equilibrium.

Therefore, the awareness of a pluralistic self and the acceptance of a diverged field of positions, accessible and impacting our positioning in the world, are in itself a contrast to a monocultural self. We need to acknowledge the dangers of a monocultural self, especially in times of crises and threats. Another dimension we need to take in consideration is to rely on a fertile ground: Cultivation is a process that is structured and constantly re-structured by means of interacting with one's environment. Human beings only become open for biocenosis if they are willing to appropriate and re-appropriate fertile grounds of cultivation, thus, to throw themselves into multiple environments and to make sense of them, in the literal and metaphorical meaning.

It is of essential need that the concept of a polyculture self can be seen in general as self-optimization by enlarging the scope of possibilities in oneself, accessible in essential moments of ruptures, yet it does not lead simply into a guarantee for a healthy self. Furthermore, the potential risk of an oversaturation of the ground also needs to be taken into consideration, knowing that an individual can lose himself in the inner dialogue of too many I-positions leading into a confused open system. In the end, it is about the balance of relationships that accounts for organic growth in irreversible time.

## Dialogue

*Q1: What kind of shapes can a "psychological" monoculture have and how could it look like? Assuming thinking is dialogic by nature, could a monoculture as applied to psychological systems be considered as an issue with semantic relations between subject and its environment?*

A1: Even a mono-cultural self is dialogical in its nature. If I perceive myself, for example, only as I-as-worker (within enterprise XY), I might neglect my duties as father, partner, brother, citizen, and so forth. But even within this I-position, I am in dialogue with my colleagues, my boss, my customers, and so forth that will continue to shape the definition of my position I-as-worker. Yet, the dialogue is constrained in very peculiar ways as there are no opportunities for the catalyzation of new I-positions or even an adaptive flip-flopping between several I-positions based upon environmental demands (my son wants me to watch his soccer matches, yet I am only concerned with my work). And the I-position I-as-worker is in a negatively

interdependent relationship with the neglected I-position I-as-father. No dialogue also becomes dialogue to a certain extent. A monoculture remains a specific *Wirkungsgefüge* as a self-relying only on one I-position remains a highly constrained *Wirkungsgefüge*, either.

*Q2: Are psychological systems prone to be treated like ecological systems by virtue of their belonging to ecological environments?*

A2: We are inclined to answer this question positive. A psyche does not exist without its environment. An I-position can only be developed if there are agents giving rise and shape to the particularities of the I-position as well as the personal stance toward this I-position. Every personal sense-making process is always related to an objective, material environment as proclaimed by activity theory (Leont'ev, 1978), and this material environment is ecological in its very nature as different agents—with different goals—are inhabiting common physical ground, and it is about the positive or negative interdependence of the biocentric network that will explain its growth or dying. Yet, even dying is an important phase for further growth as proclaimed by Goethe in his famous sentence of *die and become*. Every die and become needs to be interpreted against the *Wirkungsgefüge* of multiple agents living together be it in a forest or in intra-psychic system. We remain ecological beings. To say it with Vygotsky, we only become who we are by the means of relating to other people (Vygotsky, 1972). A forest only becomes a forest by relating to other organisms. This is a necessity as constraining this relationship leads into a higher probability of the forest dying and re-organizing itself based upon multiple relationships.

## References

Boesch, E. E. (1991). *Symbolic action theory and cultural psychology*. Springer New York.

Boesch, E. E. (2002). Genese der subjektiven Kultur [genesis of subjective culture]. In M. Hildebrand-Nilshon, C.-H. Kim, & D. Papadopoulos (Eds.), *Kultur (in) der Psychologie: Über das Abenteuer des Kulturbegriffs in der psychologischen Theorienbildung* (pp. 67–95). Asanger.

Campill, M. A. (2021). Towards a Wholistic model of identity: Why not a meadow? *Integrative Psychological and Behavioral Science, 55*(1), 112–127. https://doi.org/10.1007/s12124-020-09588-3

Fels, E. (1940). DER DEUTSCHE WALD [the German forest]. *Geographische Zeitschrift, 46*(7/8), 241–262.

Hermans, H. J. (1997). Dissociation as disorganized self-narrative: Tension between splitting and integration. *Journal of Psychotherapy Integration, 7*(3), 213.

Hermans, H. J. (1999). Dialogical thinking and self-innovation. *Culture & Psychology, 5*(1), 67–87.

Hermans, H. J. (2001). The construction of a personal position repertoire: Method and practice. *Culture & Psychology, 7*(3), 323–366. https://doi.org/10.1177/1354067X0173005

Hermans, H. J. (2002). The dialogical self as a Society of Mind. *Theory & Psychology, 12*(2), 147–160. https://doi.org/10.1177/0959354302122001

Hermans, H. J. (2003). The construction and reconstruction of a dialogical self. *Journal of Constructivist Psychology, 16*(2), 89–130. https://doi.org/10.1080/10720530390117902

Hermsen, S. (2014, October 22). Ökologen kritisieren Baum-Monokultur im Sauerland [Ecologists criticize forest monoculture in Sauerland]. FUNKE MEDIEN NRW GmbH. https://www.nrz.de/staedte/sundern/oekologen-kritisieren-baum-monokultur-im-sauerland-id10050016.html

Jäger, K. (2017, January 16). *Wiederauferstehung einer Waldlandschaft [resurrection of a forest landscape]*. DW.COM. https://www.dw.com/de/wiederauferstehung-einer-waldlandschaft/a-37104507

Leont'ev, A. N. (1978). *Activity, consciousness, and personality*. Prentice-Hall.

Lewin, K. (1926). *Vorsatz Wille und Bedürfnis: Mit Vorbemerkungen über die psychischen Kräfte und Energien und die Struktur der Seele [purpose, will and need: With a preliminary remark about the psychological powers and energies and the structure of the mind]*. Springer. https://doi.org/10.1007/978-3-642-50826-4

Maruyama, M. (1963). The second cybernetics: Deviation-amplifying mutual causal processes. *American Scientist, 51*(2), 164–179.

Maruyama, M. (1974). Hierarchists, individualists and mutualists. *Futures, 6*(2), 103–113. https://doi.org/10.1016/0016-3287(74)90017-2

Schulz, H. (2017, January 18). Nach Kyrill: Siegerland zieht für den Wald an einem Strang [after Kyrill: Siegerland units itself for the purpose of the forest]. FUNKE MEDIEN NRW GmbH. https://www.wp.de/staedte/siegerland/nach-kyrill-siegerland-zieht-fuer-den-wald-an-einem-strang-id209307415.html

Von Bertalanffy, L. (1950). The theory of open systems in physics and biology. *Science, 111*(2872), 23–29.

von Fircks, E. F. (2021). Daseinssemiosis: A new look at the phenomenology of Theodor Lipps. *Human Arenas, 5*, 1–17. https://doi.org/10.1007/s42087-020-00159-x

Vygotsky, L. S. (1972). *Denken und Sprechen [thinking and thought]* (4th ed.). Conditio humana: S. Fischer Verlag.

Wittich, W. (1937). Der Einfluss der Holzart auf den Humuszustand [the influence of the type of wood on the condition of hummus]. *Forstl. Wockensehr. Silva, 25*, 253–260.

Yalom, I. D. (2012). Love's executioner: & other Tales of psychotherapy.. Hachette UK.

# The Story of Isepal – A Case Study Allegory Analysis


**Linus Paul Frederic Guenther**

Client: Isepal.

In Psychotherapetic Treatment: 2. November 2021–6. April 2022.

*The name Isepal is a pseudonym. The participating person does not want to publish their name. The name Isepal is deliberately chosen to be gender neutral. Isepal was born as a biologically feminine gender but enacts herself as non-binary in they gender identity. All wording in this text is therefore not to be understood as generic feminine. The entire research was originally in German because Isepal is a native German speaker. This chapter was then translated from German to English after the research process has been completed. Figures and formulations might be relating to a German cultural context.

## Case Presentation: Why Isepal?

Isepal came to my practice in late 2021. After a few sessions, Isepal was asked and agreed to participate in a case study and all formal preparations for their participation was carried out. The AA was carried out in 2021 and 2022 with 15 participants in a wider field study but Isepal was chosen for their expressed they feelings allegorically with great vividness, was very amenable to the analysis of this, and showed high compliance with the study due to the good working relationship with the researcher in practice.

As described in the preceding methodological chapter (Guenther, in press), AA will proceed here in four steps:

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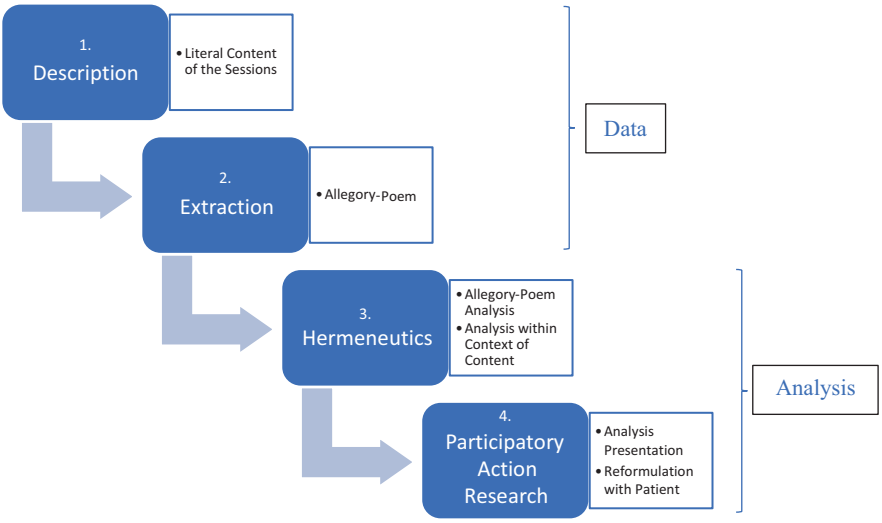
1. Description of the content of the therapy sessions.
2. Creation of allegory poem.
3. Hermeneutic analysis of allegory-poem and its contextualization by the sessions.
4. Participative analysis with client.




**Graphic 1: The four steps of the AA. (Source: Guenther & Krenn, in press)**

"In summary, the steps can be recalled with the following contents in bullet points:

1. Description

   – Describe the main content of the Data (interviews or therapy sessions).
   – Only literal Content: reformulation and verbatim speech.
   – Include the *allegories*.
   – Minimize interpretation.

2. Extract the A-Poem

   – Extract all allegories from Step 1.
   – Line them up in order of their appearance.
   – Include some of the wording around the allegory if necessary.
   – Be Happy that you Created Art out of Allegories!

3. Hermeneutics & Interpretation

   – Enjoy the Poem: Analysis of the allegory-poem.

     • source & target area,
     • interactions,
     • categories, harmonies, dissonance, confusion,
     • implicit voices,
     • cultural norms, moral values and personal positions,

- Analyse the findings in the context of the content description.
  - Put interpretations in their content-context (refer to concrete data).
  - Check subcomponents of a life-script-ideology.

4. Participatory Action Research
   - Present analysis.
     - Discuss interpretations.
     - Reformulation with client.
   - Clients interpretations.
     - Highlight interpretations with great response
     - Include new interpretations for client" (Guenther, 2023, Chap. 5, pp.)

## *Content of the Sessions*

In the following chapter, the first step of the AA presents the content of the meetings with Isepal.

The fourth step: the participatory self-analysis or "the debriefing", has been added to the respective sections of the meetings. For reasons of readability in the context of this volume: "Re-inventing organic metaphors for the social sciences"(Campill, xy), the following summary of the content can be skipped and go straight to the second step of AA. In this case, it may be useful later to refer to the respective context of the content in this chapter for individual interpretations in steps 2 and 3 for the sake of comprehensibility.

### Session #1: 02.11.21

Isepal came to my practice on 02.11.2021. Isepal described suffering from depression, insomnia, and trauma. Isepal was a midwife, but was not currently working, but is on sick leave because one needs to "take a break" to "work internally." Isepal asked me right at the beginning of our meeting if I needed to give any information to the health insurance company. Isepal feared that they could have funds cut there. Isepal planned their sick pay with great precision and proudly reported that they had "managed" to get a certificate of severe disability in addition to the sick pay. Now they wanted to endanger this of course under no circumstances by the therapy with us. If they need money in the time between sick leaves, they simply write invoices for their past work. They still have enough of these lying around at home. They always work anyway. They also stated that currently they don't really want to be a midwife anymore but would rather be a writer and write a book. In addition, they reported in the session that they had, among other things, two "parts": "a healthy adult who has increased self-demands" and "a happy child who is constantly submitting."

In the debriefing, Isepal noted that the depression was more of the past and no longer present. In general, they frequently emphasize in the follow-up that they would rather attribute the statements to the past and phrase them that way. They state that the syndromes described are no longer prevalent today.

**Session #2: 15.11.21**

In the second session, Isepal briefly mentioned at the beginning that there was a "Sardinia story" in which they had experienced very traumatic experiences but had also repressed much of it. However, they had already spoken to a therapist about this and did not go into further detail. Following this, they reported that they had already had several bad experiences with therapists, except for one who had been like a "mommy substitute" for them because they acknowledged them and told them that it was "okay the way they is." Isepal described, "There was a hole, something was filled, a hunger was satisfied." They also described a kind of detachment conflict, similar to that of puberty, from that therapist. Despite successful therapy, they had repeatedly fallen into their "garbage can mood. Lid open, me in, lid closed. "After an initial stay in a rehabilitation clinic, they had "fallen into depression" because they could no longer maintain the previous coping mechanism to deal with the depression. This was followed by further hospital stays, including one at the Havelhöhe Community Hospital, Berlin. There, the schema therapy they underwent seems to have done them a lot of good. They described in the session that they find working with schemas or inner parts helpful because they have so many "inner children." They immediately described some of them as: Rant-Reproach-Part, the Ready-Maker, the Addiction, the Ridicule-Maker, etc. These parts or inner children keep coming into conflict in a kind of inner dialogue, which Isepal experienced as very stressful. "I don't have my children under control. It drones in my ears when they talk at cross-purposes. It then reverberates in the room as well." Shortly after, they asked me if it was reverberating in the room. When I answered in the negative, they expressed that they now seemed to have become sensitive again when they reported their shares.

In the debriefing, Isepal notes a few minor corrections, but seems to generally agree with the description. They seem to avoid the term "psychiatry" in the corrections and also in the narratives. When I asked them about this, they indicated that they were doing so to avoid the stigma associated with the term.

**Session #3: 11/24–21**

In the session, we continued to talk about Isepal's shares. They brought a piece of paper and had continued to write down shares at home. They also clearly showed joy in working with the shares. They pointed out again and again a for- or against-tendency, which the respective shares have. They hypomanically wrote down many parts and their voices, which they found difficult to distinguish from each other (Fig. 1).

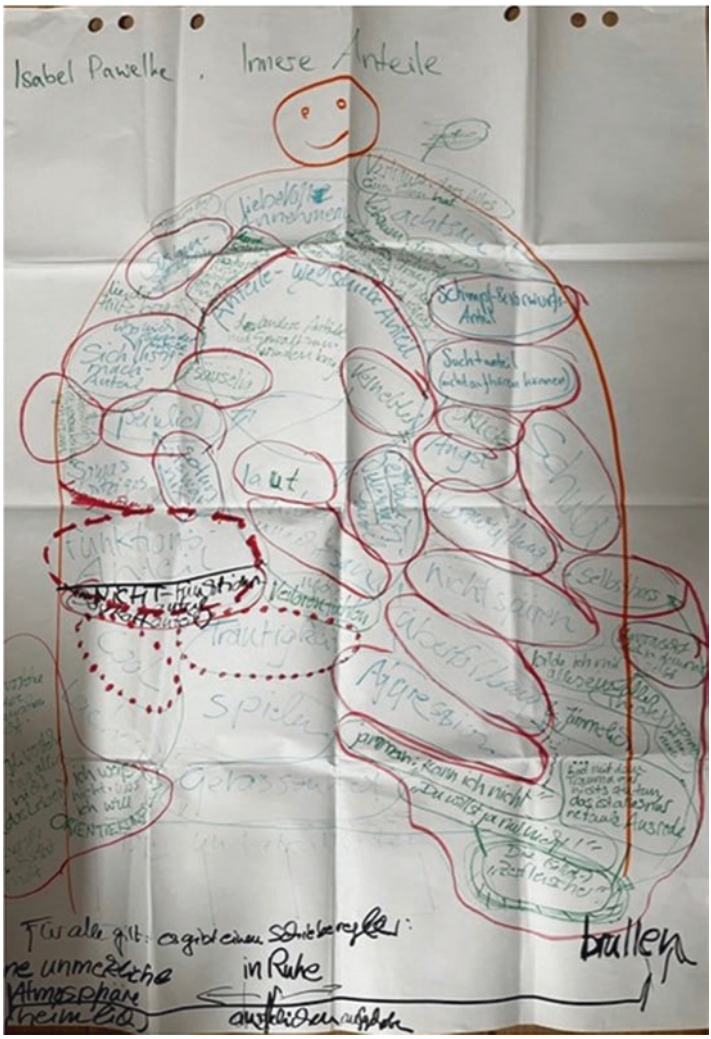



**Fig. 1** Isepal's shares (in German)

The flipchart, on which we wrote down the shares, became more and more confusing. Often Isepal was unsure whether a share was appetitive or aversive for them. They visibly tried to find appetitive parts as if it was a school assignment. At one point they let it be known that "writing down positive shares is a bit embarrassing." Isepal describes phases where they can fell themself working well and then also phases where they are dysthymic and overwhelmed, cannot feel Themselves and withdraws. This is also represented by the slider they drew on the flipchart where we had recorded the shares. It shows a range from "yelling" to "being imperceptible and quiet" and is a dimensional expression in which all parts repeatedly show themselves in different ways.

**Session #4: 11/29–21**

Isepal came into this session agitated and moved. They said right at the beginning that they could not focus on the shares today because they had slept so poorly and was burdened by the Corona situation (this week the 3G to 2G regulations had changed). They are not vaccinated, also described that they do not think the collective vaccinations are the right thing to deal with the situation and of course they also described the exclusion they are visibly experiencing from society for this. They perceive how society is coming apart at the seams, becoming more and more extreme and divisive. They find it difficult to find their inner center. They then want to remind themself again and again that "there is a higher power, that everything is connected and everything is energy." They talk about how they have an important task in life and will live a long time. They do not know what exactly this task is, but they know that it exists. This seems to give them serenity and strength. They describe feeling pity for all those who have no overriding goal in life and therefore feel less meaning in life. In dealing with the current situation, they relates an anecdote from their life:

> We had gone to Spain with friends in an old bus to a spiritual festival. When we came through a larger city -it was still at a time without a navigation system in our cell phones- we no longer knew where we were or where to turn. When we came to a big intersection in the middle of the city, I knew intuitively that we had to turn left to get out of the city onto our actual route. At that moment, however, everyone else on the bus was trying very hard to find the way, shouting continuously in confusion, so I knew that no one would hear me anyway if I now spoke my mind as well. Since I also had certainty, I simply kept silent and the bus turned off in another direction. After further searching around in the city, we came again to the same intersection. Since everyone was now exhausted, everything was quiet in the bus, no one gave away his opinion. So I could quite undisturbed tell the others that we had to turn left and lo and behold! A moment later we got out of the city and back on the right track.

In addition, they still told of trauma memories that had also come back to their consciousness on this trip. They gave a rudimentary account of a situation in their childhood in which they had experienced sexual violence on the part of their father. They seemed strongly moved by shame and fear. They described that they only remembered a fragment of the situation. They reported that their father asked them, "Are you afraid I will want more?" They reported that they answered "No," but that their body reacted. They report "body memories" shortly thereafter, which are (usually nighttime) physical sexual arousals that are simultaneously uncomfortable, cause them a great deal of distress, and lead to insomnia. They wants to "suppress the body's memories most of all" because they are not perceived as pleasurable arousals but very unpleasant, "similar to when you are tickled and then it hurts extremely. I am a wounded soul." They also report that during sexual experiences with their ex-partner they repeatedly broke off sexual acts "because unpleasant parts emerged and it was no longer nice and I just didn't want to endure that." This seems to have repeatedly led to tensions in the partnership.

In the debriefing, Isepal revised much of what was said in the fourth and fifth sessions on 11/24/29/21. For example, Isepal stated that it is not pity that they feel

for all those who do not perceive a superior goal in life. It would only be "sometimes" compassion. They also stated that this knowledge of a purpose in life not only gave them serenity but saved them. They stated that without this knowledge, they might not live. They also added again that these issues were of the past and were no longer current. They indicated that at one time they "desperately wanted" the body's memories to go away but was now more in tune with them. They went into great detail about the body's memories in the debriefing. Furthermore, in relation to the experience of sexualized violence, Isepal added that while their body had reacted with some kind of pleasure in the situation, they were aware that they did not actually feel sexual pleasure. In the original version, I had written of "sexual abuse," which Isepal vehemently denied. They reported that no physical violence had taken place, but that it was a case of psychological violence and sexualized abuse of power. They also reported that they found the term "sexual abuse" very problematic. First, because the term "sexual" implies that sexual acts must have occurred, and that may not always be the case (as it was not in their case). Second, because the term "abuse" euphemizes the sometimes-serious violent crimes.

**Session #5: 08.12.21**

Isepal seems very moved and agitated, cried a lot and sometimes very violently during the session. They spoke again about the sexualized violence experienced in relation to their father. He had caressed them, they had perceived a physical reaction, but did not want the whole. They had forgotten about it for a long time until he told them again at some point. The memory was only a fragment, which was perhaps a good thing. They learned that they repression mechanisms are very important after a stay in rehab (psychosomatic clinic). For many years, they always had a "click" mechanism with which they could unconsciously or without perceived self-control suddenly repress destructive parts. However, this was lost during the psychotherapy in the clinic, so that the depressive and reproachful parts built up again over months without them having "any idea how they could get out of it themself." Had they known how difficult it was to deal with all the unconscious, they would have gladly continued to repress it. The depression is an inner "tearing apart." The "child" inside them keeps wanting "healing and space," they describe. "It's like a little plant that grows and then the depression comes, and I trample it.". At this, they jump up from their chair and furiously trample an imaginary little plant. This portion then says sentences like, "Why didn't you? Why do you have only? Stop crying, or you'll get a reason!" They know these sentences from their father. They wonders aloud, "Why can't I still get rid of them?" They relate how their mother used to lock themself in the toilet during arguments they had with their brothers because they didn't know what to do and couldn't stand the situation. Toward the end of the session, Isepal goes on to describe how they had this child inside them that "keeps looking for protection but is disappointed in me." They are frustrated because the "healing" takes so long. They want to give themself and their inner

children time, but keep distracting themself by functioning and are again very sad about it and cry a lot.

In the debriefing, Isepal emphasized several times that they had only reacted physically to the sexualized violence by the father and was always sure that they did not want the whole thing. They also emphasized again that the fragment memory only came up again after they father told them about it.

**Session #6: 12/15/21**

Isepal begins by reporting that they had written down two therapy goals for themself at home. One is to develop more self-efficacy and the other is to achieve more structure for daily life. They also report that they again slept little and found going to bed difficult. The "mangler" is back. They report a dream in which they externalized the anger and aggression that they normally internalize autoaggressively against themself. In this externalization, however, something very bad happened in the dream. They do not go into more concrete content. They expressed surprise at "how much anger I have inside me. I must let the anger out somehow." As the session progressed, we rededicated ourselves to the shares according to their interest. "There were many that came up again." For example, the "blusterer" who says that the "traumas are just lame excuses. You're just kidding yourself. It's all a joke." They want to trust themself more "[...] that when the time is right, and things are up." It describes yet another part, the "nebulizer that pushes away is purring and subliminal." They needs to "push the pressure aside sometimes, too. There's so much pressure inside. It's a bit like a child: you go 'BABABA' funny when they cry and then they stop, but the sadness hasn't gone away." Isepal reported that they had not learned that there were needs of their own. This is where their anticipatory obedience and submissiveness of the Inner Child comes from. In this context, they related another anecdote:

> When I was a child, my mother used to braid my hair before school in the morning. One day my father came by and commented that his sister had already braided their own hair at that age. From that day on, my mother never braided my braids again. My father certainly did not want this to happen. That was not the point at all, I could already braid my own hair. But my mother obediently hurried ahead, assuming that this was what my father wanted. My need was irrelevant.

Isepal also seemed to have trouble differentiating the other parts we wrote down in this lesson. They state that they also have a part that is always tense, and is like the "fear - sits in the neck." At the end of the session, Isepal still inquires if they could bring an early retirement application next time, which they urgently need to fill out soon, but can't do it on their own.

In the debriefing, Isepal reports their anger and aggression dream. They would have been in a huge room, similar to a subway hall. There were escalators on the sides of the room. In this room, however, they were then grabbed by the arms and taken away by two policewomen because they had done something apparently criminal in relation to Corona. However, they felt that they were being led away

completely unjustly and wanted to stay in the room, or rather not be violently seized by the two policewomen. Then, as they rode out of the room with them on the escalator – the stairs seemed to go on endlessly through the room – they were able to free themself. They braced themself with their hands on the armrests of the escalators, jumped off and kicked at the policewomen. They flew across the room, down the stairs, shredding their bodies and sending bloody chunks of flesh of the bodies flying across the room. Awakening in shock and horror at the violence and brutality of the dream, Isepal

**Session #7: 12/20/21**

As announced, Isepal brought the early retirement application to the session. During the session we got to go through the whole application, discussing the processing and any ambiguities. They seemed pleased with the outcome. My role as a therapist was very rudimentary. Only rarely did I ask a question or remark on anything. In fact, I just sat next to them the whole hour, agreeing with them on something now and then. It became apparent that they also had great expertise in processing such requests. They said that they want to try to start working again next year but want to keep the option open with early retirement in case being at work again overwhelms them. The last time they tried to enter the profession after a sick leave, they were again in crisis. No allegories were recorded in the session.

**Session #8: 10.01.22**

Isepal reports that they are much better since the New Year. Following the mystical custom of the Rough Nights, they had kept several days of rest, oracle and silence between Christmas and New Year's Eve. On these days, they had put aside all obligations, turned off all electrical devices, and had not talked or met with anyone. Unfortunately, "the second stage was already again extremely torn," because they had to do something bureaucratic for a friend, for which they needed the Internet, which broke down exactly in this time, so they had to call the provider and interrupt their rest. However, they had gone for a lot of walks by themself again during the quiet time, which they hadn't done in a long time, but which was very good for them. "I've found the joy of walking again. I can always walk across streets to get somewhere nice." They say they used to do a lot of jogging, swimming, and ice bathing, but can't manage it over the years. "If I can go ice swimming again, maybe I'll have the courage to fall in love again.". They would like to go ice swimming again, but it is perhaps still a little "over the fence" because they are still too carried away by the crisis. They prefer swimming and biking right now, they said, because it's "like sitting in an armchair. I don't have to carry myself." They also report: "I live the experiment: I don't want to force myself to do anything. When it's time, it comes. Towards the end of the session, Isepal again points out that they could have actually stayed in silence for a few more days, but then "there was just a break,"

referring to the interlude with German bureaucracy and the Internet that disturbed their peace.

In the debriefing of the #seventh and #eighth sessions, Isepal had no comments or corrections to the text.

## *Allegory-Poem*

#1----------2.11.21.
Abandoned.
A lot of work inside.
I muddle through somehow.
I take a break.
That would go beyond the scope now.
#2----------15.11.21.
Don't go from the sticks to the sticks.
Mom replacement.
There was a hole.
Something was filled, my hunger satisfied.
Garbage can atmosphere.
Lid open, me in, lid closed.
Fallen.
Inner children.
I can't control them.
It roars in the ears, it reverberates in the room.
#3 skipped on 11/24/21 (no allegories and only 20 min session time because Isepal was late).
#4----------29.11.21.
Out of joint.
Finding my center.
Higher power.
all connected, all energy.
Body memories.
Suppress.
Tickled and it hurts.
Hurt soul.
#5----------8.12.21.
Click.
At the edge.
The mangler.
Child wants healing and space.
Plantlet grows.
Trample it!
Why can't I still get rid of them?
Child becomes disappointed.
#6----------15.12.21.
How much anger is in me.
I can't.
You just won't.
The manglers.
Let anger out somehow.
She showed up.

Trauma is just a lame excuse.
You're just fooling yourself all the time.
It's all just a joke.
Trust when the time is right and things are on the line.
Nebulize, push away, mumble, subliminal.
Push the pressure aside.
There's so much pressure inside.
Like a child, you go "BABABA" funny when it cries and then it stops,
But the sadness is not gone.
Submissiveness, anticipatory obedience.
Tense.
Fear sits in the neck.
#7 skipped on 12/20/21 (no allegories, due to processing of pension application).
#8----------10.1.21.
Caring for me.
Rough nights, oracle for the coming year.
Squeezing in between.
Again extremely torn.
I sit like in an armchair.
I do not have to carry myself.
I have found the joy of running again.
I can keep running across streets to get somewhere nice.
Ice bathing and having the courage to fall in love.
It would have been breaking over the fence.
I live the experiment: I don't want to force myself to do anything.
When it's time, it's time.
I am in silence.
There was a break.

## *Analysis*

The full analysis of the case, the central hermeneutics, respectively, interpretation of the content and the Allegory-Poem is presented in the following. The fourth step: the participatory self-analysis: "the debriefing", has been added to the respective session sections as in this third step. In this chapter, using the AA method presented in chapter above (Guenther, in press), the allegory-poem is first interpreted. Next, the allegories will be interpreted in the context of their occurrence in relation to the content of the sessions. The analysis will be introduced by a conclusion of the case AA. In this conclusion all central interpretations and outcomes of the AA will be outlined, similar to an abstract.

## *General Conclusions for the Case*

Through the AA, many of Isepal's psychodynamics, shares, hypergeneralizations, and life-script-ideologies could be found. Moreover, a therapeutic process between regression to infantile stages and later personal growth could be illustrated in the debriefing.

In general, Isepal has a great capacity for introspection. It is evident that they have developed extensive insights into their psychodynamics over the past decades. They clearly demonstrate that they are motivated for therapy and desire trustworthy guidance and support for their search for meaning. While they are able to recognize many of their psychodynamics, they have difficulty over – or even ordering dysfunctional ones. They are aware of much of the inner parts, which can also be represented as their inner subsystems of their personality.

## Isepal's Inner Child and Inner Adult

In their current situation, they seem more aware of the ambivalence between the Inner Child's share complex and the Inner Adult's share and want to make this the topic of the therapy. The conflict they describes between these two parts is detailed above in the Fig. 2 "Isepal's Ambivalence." They dream of a world in which children are protected by their parents and have their needs recognized.

However, due to family circumstances, to which Isepal was helplessly at the mercy of a law of nature, this was denied to them. Now they transfer the process between mature and loving parents and well protected and freely developing children into the therapy by transferring the parental functions they feel in themself to the therapists and feel themself regressively as the neglected child. Thus, as a child, they actually want to roar with rage and shout out to the world all their anger at the unjust situations to which they were subjected as a child. Yet, they often forbid themself to do so because expressing anger would represent the expression of a need.

## Isepal's Psychodynamic

As a result, Isepal turns anger inward as an autoaggression against themself, which became part of the dynamics of their depression. Beyond this, however, Isepal finds it difficult to limit themself, which repeatedly stresses them in important areas of their life, such as work, relationships, or sleep patterns. This may have to do with the massive boundary crossing by their father that they experienced as a child.

Currently, the treatment shows that the Inner Child is hurt, torn, and disappointed. It feels abandoned and neglected. The inner adult wants to give space again and again, to make healing possible, but fails in part because it does not know how to do this and pushes itself to function.

## Isepal in Treatment

Becoming aware of this process in therapy, Isepal is able to give themself space again and again, to come to rest and to pause in a healing way. In the course of the treatment, they seem to succeed better and better, so that in the end they even allows themself some of the calm. To some extent they are able to express their anger in


**Fig. 2** Isepal's parts

dreams and in our sessions, even though the fear of something bad happening as a result is so present that they unconsciously suppresses everything again and again in anticipatory obedience. A healthy family concept is ultimately what they are trying to establish and have already done in rudiments within the communication between their parts within themself.

It is also worth noting here that they help to bring children into the world and to make women mothers just by their choice of profession as a midwife. In a figurative sense, it is now a central process of therapy to help the Inner Child into the world in a familial maternal act. It is a matter of making up for what was denied to them as a child: space for needs, unconditional appreciation for oneself, mindful coming to rest, representing community.

This pursuit of a happy life, of meaning and significance, for Isepal involves withdrawing – spatially and emotionally. This can have dysfunctional effects when they pull themself out of the situation the same way their mother does in the bathroom, as the conflicts keep coming back to weigh them down (e.g., body memories). But it can also have functional effects if self-care follows from it: to take a break for themself, to put the stress aside and to accept that they cannot do something right now. However, because every now and then a part commands them that they must function, must not be weak and must perform in order to get recognition, they swing bipolar from hypomanic experience of situations to those full of depressiveness and apathy. Their development before the last session seemed particularly happy to me.

## Isepal's Coping Strategy

Isepal had found a coping strategy to endure their ambivalence. They realized for themself that life sometimes means brokenness and that they can go on in spite of it, so that in the end they also finds themself again and again in beautiful moments. With a kind of serenity and mindfulness, they rely on things to happen when they are supposed to happen. This coping mechanism fills them with harmony. One of their life ideologies here is that they don't want to have to force themself to do anything. Another life ideology here is the belief that the world is transcendentally and energetically connected.

## Isepal's Debriefing

In the debriefing, Isepal notes that the function part is one of their most successful and most used avoidance and suppression strategies. In addition, they note that they are learning to express their anger better. Their "yelling" parts used to be "discouraged," but they now want to change that. Nevertheless, they also describe that they now want all the living parts to work together in an integrating way so that their needs are met. We could agree that they call this an inner system or community. They rejected the term inner family in this context because they do not need a family in the classical sense and their family image is not positive. Furthermore, in relation to their life-script-ideologies, Isepal noted that in the regression process within therapy but also in the communication between their parts, they wanted to teach themself a primordial trust that "has already arrived in the head but not in the rest of the body." They describe how "the fear and the pressure are still sitting in every cell. There is still so much pressure in me and I can only get out if I am mindful, accept the fear, pull it to me and let it go. I want to accept each of my cells as a share." Accordingly, in the debriefing, Isepal confirmed my interpretations, hypotheses, and interpretations from AA. Within the debriefing they already came closer to their goals and made the impression of far-reaching developments on me in the session concluding the therapy. In the last session on April 6, 2022, five months after the

beginning of the therapy, they answered "yes" to my question whether they were happy in life in general.

## *Isepal's Ambivalence*

In analyzing the allegory-poem, two shares already alluded to by Isepal in the sessions shone out for me in particular: some Inner Child as common shares and an Inner Adult as a share. Both seem to be in an ambivalent dialogue that fills Isepal strongly with suffering. A third dynamic, however, seems to break through now and then: a unifying share that tries to establish harmony between the two poles. In the following, these parts are graphically subsumed and colored. The ambivalence will also play an important role in the later interpretation of the allegories in the context of their sessions.

In the debriefing of the allegory-poem and its interpretation as an ambivalence between Inner Child and inner adult, Isepal was very open to this interpretation. However, they further noted that they found two other patterns in the poem. First, they could divide it into active and passive passages. This could reflect, among other things, the dynamic that they face some processes in life at the mercy of others and perceive others with self-efficacy expectations. On the other hand, they could discover a pattern in the distinction between "real and fake feelings and needs." However, they appeared very uncertain about this. This could be an indication that they still perceive their thoughts and feelings as controlled by many different and partly not beneficial parts.

## *Session #1: 02.11.21*

In this first session I remember having the impression that Isepal seemed to use the severely disabled card as a justification for long sick leaves. In my countertransference (my own emotional reaction to the client), I was somewhat confused and could not believe that they were severely disabled, as they appeared to me to be a physically fit and physically healthy person. Also, in this session, I realized that there might be some psychological ambivalence here: A mature adult with high standards of self-functioning ("a lot of inner work; I struggle through") vs. the immature child who submits ("being abandoned; Inner Child"). The source area of the allegories seems to point to the context of a work assignment ("[not] let someone down; inner work; muddle through; take a break; push the envelope"). Could this be the mission Isepal has for this therapy? Do they see therapy as a project to work on together as a team? It could be their subjective meaning for this therapeutic process.

In the post-calculation, Isepal noted that they do not see the severe disability card as a justification, but as a proof of recognition from the outside that they have it harder in life than other people. They also said: "I hate the statement 'seize the

day'". They always work and want to use the word "work less, but enjoy life more." From home they knew that they were always to blame for everything and always had to be productive. This is what got them into "all the shit" in the first place. In their opinion, they first had to let themself go completely and give up completely (with which they allude to the depression) in order to now get out of it and define guilt as responsibility for themself.

## *Session #2: 11/15–21*

It seemed that Isepal wanted to express a parental transference in the therapeutic process. Allegorically, they formulated the therapist as a caring mother who nurses them ("mother substitute; something was filled, my hunger satisfied"), while they formulated themself as a child in puberty. It seems that they often feel like a child who has been abandoned and needs protection and care, as well as long for parenthood. They also seems to feel the situation as helplessness and indulge in their depression and insomnia. They seem to fall in the situation as a result of a natural law and feel thrown away ("garbage can atmosphere; lid open, me in, lid closed; there was a hole; I fell"). Isepal nevertheless shows a high motivation to work on themself. They seem to have a great capacity for introspection and have a good sense of their psychodynamics. They referred to a previous positive experience with a therapist as a "mother substitute." They showed much motivation in working on their inner parts and referred to some of them as their "inner children." It seemed clear that they had already done a lot of therapeutic work over the past decades and had gained a lot of insight about themself. It also seems that they have an inner conviction that gaining psychological insights about themself is worthwhile in order to develop and deal with psychological crisis. In my opinion, two source areas of their allegories can be found in this session. One seems clearly to be the family concept ("hunger-feeding mother; hunger; children"). The other seems to be a kind of container allegory into which something can be put or even in which something can be hidden ("lid open, me in, lid closed; I fell, it reverberates in the room; there was a hole"). I think the fact that they experienced the hint of dissociation in the form of halls in the room in the session reinforces this assumption.

In the debriefing, Isepal noted that in the parenting session they experienced themself as catching up on a detachment process. They can accept the dumpster mood as a "definite consequence of the things I experienced" for themself.

## *Session #3: 11/24–21*

There were few allegories in the third session, and the session was shortened to 20 minutes because Isepal was 40 minutes late. Nevertheless, there were some fascinating insights into their psychodynamics, made possible by their lively

participation in working with the inner parts. In this session, they drew a slider (which can be seen as a painted allegory) under all the parts, which symbolized a dimension in which their parts articulated themselves. The dimension ranged from "screaming loudly" to "imperceptibly quietly" and secretly. Could this be another ambivalence in which they experience themself. The dimension reminded me of bipolar experiencing: Withdrawal, depression and not feeling themself vs. hypomanic phases where they work a lot and feels themself. Writing down their different inner parts in speech bubbles on a flip chart, it became clear that the boundaries of their inner parts did not seem clear to them at all. They were bubbling over with ideas for parts and their voices, but they overlapped almost every time and Isepal made so many connections between them that it all became confusing for me (see Graph 1, p. XY). After this third session I wrote in my notebook: "Boundaries unclear, was there a boundary crossing in the past?". While writing these lines after the whole process, I realized how the family source area and boundarylessness were interrelated.

In the debriefing, Isepal notes that they don't feel good (original wording) when they work a lot, but then only felt that way themselves in the first place.

## *Session #4: 11/29/21*

It looks like their perception of their own life is in tension of ambivalence between "finding my center," belief in a "higher power," and a transcendence experience that "everything is connected, everything is energy" vs. lack of meaning and boundaries in times of depression. This could be a coping mechanism as a response or last resort to everything being "out of joint," which obviously causes them pain and leaves them as a "wounded soul." The sense of meaning they expresses in this fourth session could be summed up as the belief that their life has a higher purpose, no matter what that is. They seem to be able to find inner peace in silence and withdrawal from society. In my opinion, the anecdote they tell has a strong symbolic meaning and illustrates one of their coping mechanisms: the construction of meaning through religiosity. Moreover, they seem to manifest the traumatic experience (sexualized violent experience by their father) in their body. The source area of allegories here is clearly physical ("body memories; tickled and it hurts; wounded soul; out of joint; my center; displace"). From this spatial-physical area of origin, it targets trauma. In other words, it appears that they have embodied a trauma. Moreover, the reference of the Inner Child (which they themself refer to as such in a session) recalls the therapeutic work with trauma in relation to Cappacchione's (Capacchione, 1991) concept of the Inner Child. The concept was later much used, especially in schema and gestalt therapy practice (Böge et al., 2020; Bradshaw, 2013; Carr & Hancock, 2017; Kalsched, 2003). Isepal may have brought the concept from previous psychotherapy experience because previous therapists suspected trauma and addressed the concept. However, they could also have referred to it

because it is a meaningful approach for many people to take in dealing with trauma in a healing way.

In the debriefing, Isepal again felt it was important to replace the phrase "sexual abuse" with "sexualized experience of violence." They also noted that they "probably wouldn't be around without the spiritual one."

## *Session #5: 08.12.21*

In the fifth session they seem to fall back into the dysfunctional dynamic. In addition to the allegories, they articulated in this session, which will be interpreted below, it seems important to emphasize here that during this session they cried very intensely, seemed to be afraid, and decompensated in fits and starts. The ambivalence experience seems to have reached its peak in this session. The "disappointed child," who is like a "growing plant" that just wants "room to heal," is being "torn apart" and "trampled" by something they "can't get rid of" and which is taking them "to the brink" – "depression." But who is this "trampler"? Who or what is trampling on them? The source area of allegories in this session is very scenic (trampled; torn), as if there is a lot of application in it. Also, the source area was living-organic (plant; healing), as if the process was almost a biological natural event of growth. Moreover, the family source area ("child") is mentioned again here. Is it possible that Isepal sees themself here again as a child who needs space and wants to grow, and understands their father as the tatter who tramples on them? They mention in this session an inner voice saying, "Stop crying or you will get a reason!" This seems to be a phrase they heard more often from their father. Several times they mention that they want to give their Inner Child space and security but are not able to do so. Is Isepal directing the anger they actually have toward their father toward themself?

In the debriefing, Isepal noted that they had suffered from strong anxiety in this session.

## *Session #6: 12/15–21*

In the sixth session, Isepal seems to continue the narrative of the previous session and seems to show themself as the Inner Child being trampled on. Unlike the last session, however, this time they add that they are very "angry." They report that they slept very poorly and had a dream in which they expressed a lot of anger and aggression. Because of the anger outburst, something "very bad" had happened in the dream. They did not talk about it further. They mention that their needs were always unimportant, which may be why they did not learn to express their needs and learned to be the submissive child. This seems to me to express the following allegories: "pushing aside the pressure; it's all a joke; underwater; fogging, pushing away, mumbling, subliminal." The anecdote they mentioned at the beginning of this

session about their mother who, in anticipatory obedience and without regard to Isepal's needs, stopped braiding their hair when they were a small child, sums up this dynamic. Nonetheless subliminal, the illicit needs seem to fill Isepal with high levels of suffering, as it "tenses them; fear is on the back of their neck; the braider" is there. Yet they already seem to find some semblance of a coping mechanism to deal with the inner tension through self-confidence and catharsis. They wants to "let the anger out; come out of hiding; trust that when the time is right, and things happen." I clearly remember how happy and surprised I was in my countertransference response because Isepal seemed to have such great introspection skills and knew ways for their psychogenesis. I was also grateful for their openness, trust, and honesty with me. It could be that my feelings in this session mirrored hers and they felt relief and happiness from the first act of expressing anger in the dream and finding a way to self-confidence. It also turned out to be interesting to take a look at how the client moved between allegory sequences within the session. A closer look at the allegory-poem reveals a jumping between different parts within a session. Is a central ambivalence dynamic of Isepal latently articulated here? Looking at the sequence, one notices that it seems to jump back and forth between the Inner Children (red) and the Inner Adult (green), the two parts in it fighting. Here, the red, angry, and aggressive parts of the Inner Child seem to predominate in this session. Also, there are always conflating allegories (yellow) that could represent attempts at resolution – as if they are trying to reconcile the ambivalence. They seem to try again and again to break out of the ambivalence but turn in circles in the ambivalence (counterclockwise in Fig. 3) without being able to break out of it in the end. However, the negotiation process shows some important attempts at resolution (green and yellow), which will become even more important in the further course of the therapy.

In the debriefing, Isepal noted that not only had they not learned to express their needs, they felt that it was "not formulated strongly enough." They had not even learned that "there are needs at all."

## *Session #7: 12/20–21*

In the seventh session, Isepal had their early retirement application with them and asked me to help them fill it out. As described earlier in the content of the session, I saw myself merely present, without contributing much more than an affirmative "yes" or "no" to the situation. It seemed to me that my function in this session was exactly that – to be present, to stand by Isepal, to support them emotionally, and to give space in the session for nothing else but the early retirement application. In the countertransference, I noticed a certain impatience and distrust. I wondered if they couldn't have gone through the application on their own or with a friend – why they needed a medical professional to do it. I also wondered why they would want to use the social health care system in this way. It seems to me that they are still a person in their prime, smart, intelligent, physically fit, and also mentally able to work for a

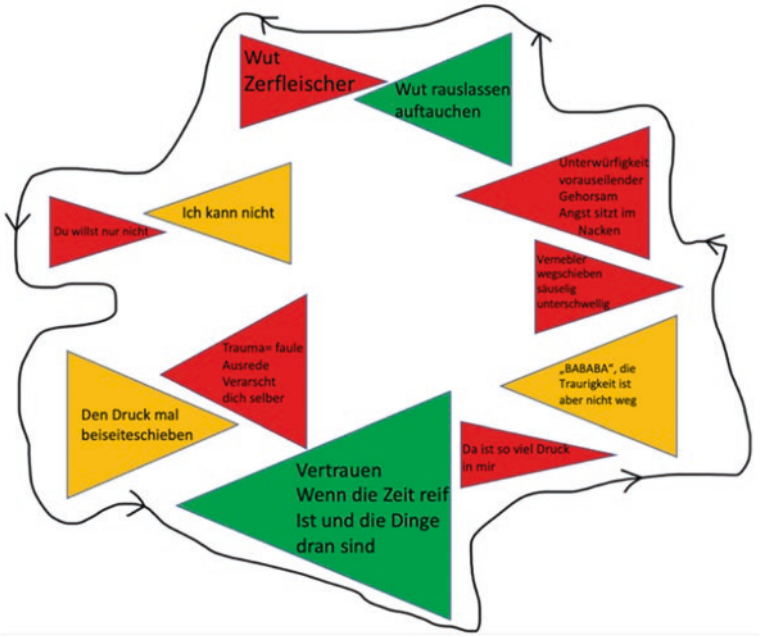



**Fig. 3** Shape of Isepal's ambivalence dynamic (German original)

passion. It is true that they have mental problems and also that they are not in a completely stable condition, but should they be incapacitated for the rest of their life? Would it be wise of me to encourage or support them on this path? After the session, I have been pondering with myself whether my thoughts and feelings really stem from the process with Isepal or are a transference of my own psychodynamics. I feel a lot of pressure to perform within myself. I also have a part that tells me, "You have to make a big contribution to society, you have to work a lot. If you work a lot, you are worth a lot". I think I know about myself that I construct my sense of self in part by contributing to society in a classic work-related sense, which includes earning my own money. Therefore, I wonder if my feelings and thoughts in this session have transferred to Isepal, giving me a sense of distrust and impatience, believing that they can fill out an application form, even working independently and taking care of themself financially. Perhaps I have experienced these feelings and thoughts towards myself rather than as psychodynamics of Isepal Perhaps, however, my own psychodynamics or countertransference reflect a conflict within them. Perhaps this process of self-esteem enhancement through recognition of work, self-reliance, and social contribution is also a psychodynamic of Isepal It remains an interesting point for the further therapeutic process how Isepal defines recognition for themself, in what professional achievement they find meaning, what they want to do, and what fulfills them.

In the debriefing, Isepal reported that they saw filling out the application together as a kind of "catch-up protest" against their parents who denied them parental

support in filling out documents in childhood. They also stated that they saw the pension application only as a security and had already started to work again, of which they reported visibly proud. Their self-worth, they said, was strongly tied to work but they now also wanted to indulge in their creativity and imagination.

### *Session #8: 10.01.22*

The source area of the allegories here, which to me have more positive connotations, seems to be directed at acts of movement and relaxation. Isepal can "run across streets" and "ice bathe", or "sit like in an armchair" and "let themself be carried". But there is also movement in the source area of the more negatively connoted allegories. Here something "intrudes," "tears apart," and "raptures." In this eighth session, I have the general impression that Isepal has achieved a large part of what they wanted: they have given their Inner Child space, time, and protection, so that it can "carry itself and sit as if in an armchair". Consequently, it looks like Isepal feels relieved and in harmony because they "don't have to carry themself." It seems that by spending time in silence during the Rau nights, they have not distracted themself from or suppressed their Inner Child through appointments or work. Now they "live the experiment: I don't want to force myself to do anything." It seems to me that here they have found a way to give their Inner Child space to express itself: "I have found joy in running again; I can keep running across roads to get to a nice place." In addition to being a child, they can also be the adult they want to be because they can function, "go ice skating, and have the courage to fall in love." Although they have found some coping mechanisms, they still acknowledge the stresses in life that sometimes "squeeze, rip, and tear in between." They endure this ambivalence by seeming to realize that "when it's time, it's time," that they don't have to force themselves to change or educate. They do not have to "break the fence," which seems to be a neologism from the saying "break something off the fence," meaning "to provoke a quarrel," and the saying "break the knee," meaning "to force something, to start something unnecessarily." They also seems to recognize for themself that in the meantime, it might be healthy to sometimes "linger in the silence" and embrace the ambivalences of life.

Isepal had no comments in this debriefing.

## Limits, Critics, and Outlooks

As mentioned in the previous theoretical chapter, clients usually have comments in many parts, can validate passages, and reject others. In this sense, all steps of the analysis were edited with Isepal, some parts were deleted, others were highlighted or rephrased. Questions remain here in this case (but might be also generally speaking): Why did they correct and reject so many interpretations in some of the sessions

where sexual violence was involved? Why did they note almost no changes in the debriefings of the last two sessions? It is critical to note that the AA can only represent a snapshot within a therapeutic process. Surely, it might be of practically interest to enhance the participative process, as in-therapy process the collaboration on the analysis steps and more in-depth debriefings. Scientifically and economically though, this would certainly enlarge the process and make it a much bigger single case study. Further insights into Isepal's psychodynamics could emerge from the analysis of the debriefings, which, although beyond the scope of this AA case study, could certainly be considered for long-term therapy. In this context, those interpretations which Isepal rejected seem of particular interest. This becomes clear in dealing with the rejected interpretations within the fourth step. Those interpretations can be simply misinterpretations. However, they could also be interpretations that the client cannot accept for various other reasons. If a therapeutic follow-up of the AA is foreseen, these interpretations could be addressed again and be an important stepstone for an effective healing therapy.

Another critical perspective that emerged from the case of Isepal is that the fourth and last participatory step of AA within a therapy can amount to an intervention. This was especially evident during the debriefing of the fourth and fifth sessions, in which the interpretations of the father's boundary crossing and sexualized violence experience were discussed. If this step is taken at a point in the therapy process where a client is not able to deal with the interpretations (to accept or reject them), it might even harm the client. The precautions to be taken should not be underestimated and AA for psychotherapy should only be used by professional staff.

In realtion to the preceding methodological chapter, it turned out methodolocially critically that in the future another step could be added to the analysis of AA: a closer look at how a client moves between the individual allegory sequences within the session. Looking more closely, Isepal's allegory-poem showed jumping between different parts within a session. Here, further insights into the ambivalence dynamics of clients might emerge. Here it seems particularly exciting to look at the organic allegories of the growing plant and the decomposer. Both allegories can be seen as independently inner part, yet both organically realted – plant (flora) and animal (fauna). They symbolize the ambivalence between the Inner Children and the Inner Adult. They also illustrate the organic-allegorical ambivalence-psychodynamics, which here unfolds non-linearly (cf.: Fig. 3: Shape of Isepal's Ambivalence) like a helix spiraling in the dialogical self of identity (Campill & Valsiner, 2021; Hermans & Kempen, 1993). Accordingly, the two parts orbit around each other, contradict each other, engage in internal dialogues, and lead to cognitive dissonance, emotional numbness, and further development. Circling around each other and demanding integration, they move spirally on and on, constituting Isepal's identity. Catalysts could be memories, experiences, etc., which construct the identity ("I want to grow, like a plant"). A rupture, a "rapture", could be an experience or a share that brings about a qualitative change in development (e.g. the "the mangler comes and destroys everything") (Fig. 4).

One could follow up here in further case studies and extend the methodology of AA to include this aspect. It could be that with AA, precisely those spiral

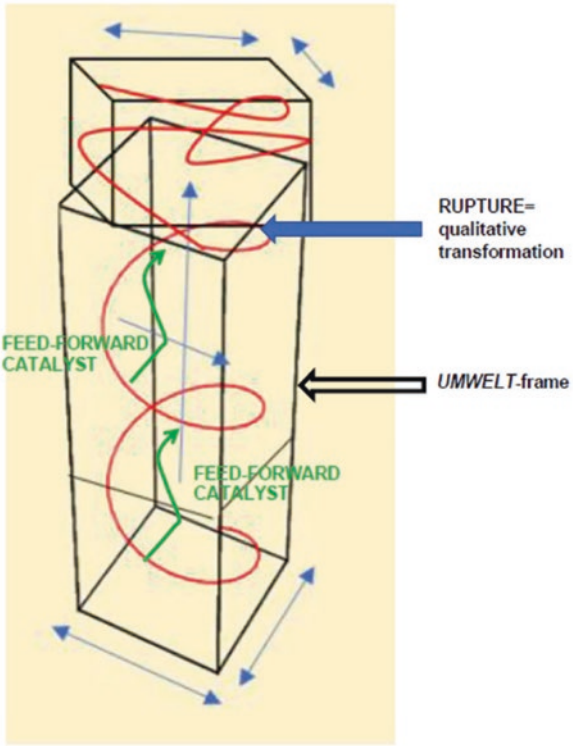



**Fig. 4** Helical movement forward of the dialogical self, Source: Campill & Valsiner, 2021

ambivalence psychodynamics can be uncovered in the form of organic allegories in the shape of a dialogical helix. The approach of AA concerning the construction of identity by different life-script-ideologies or inner parts should be extended by the theories of the dialogical self (Hermans & Kempen, 1993) and the spiral helix (Campill & Valsiner, 2021) in its theoretical foundation. In addition, further study could pay special attention to communication via organic allegories. Retrospectively, one of the greatest potentials for gaining insight from AA with Isepal lay in the two allegories of the growing plant and the trampling tatter. Through them, a central psychodynamic of the client could be uncovered. As a therapist and researcher, I felt that organic allegories in particular enabled empathy with the other person. Further studies on this topic would be necessary to test this hypothesis.

## General Conclusions

It could be shown that AA can be applied right at the beginning of a therapeutic treatment. The recordings and analyses were made within the first eight sessions. The following sessions were used for the reflection of the interpretation and the participative step respectively. It seems appropriate to discuss the AA with the

patient only after a few sessions and to initiate the participative step. For the resulting irritations and dangers of decompensation of the client, it seems indispensable to have already developed a basis of trust with the patient in therapy. However, the first three steps of AA seem to be feasible already at the beginning of a long-term therapy or within a short-term therapy. Yet, for the fourth participative step at least three to many sessions should be scheduled so that a debriefing is possible.

Furthermore, it remains to be critically noted that Isepal's presentation of the method of AA was particularly well suited because they articulated a particularly creative expression for psychological experience. They displayed a high capacity for introspection and expressed this impressively through metaphors and allegories. Certainly, they are a precedent for the notion of AA. For clients who do not find introspection easy, who choose a particularly language-image-poor expression for their psychic experience, it seems more difficult to use AA as an analytic tool for therapeutic understanding. It remains an open question to what extent AA can be used with less metaphorical-allegorical clients. Further research in this field could address this question.

## Dialogue Sequence

*"The allegories aren't the embodiment of a concept, but they are the tool. They are not even the tool itself - if I understood correctly – but the metaphors, which are weaved into the fabric of a clients allegory, are the path for a deeper connection and understanding of the self/ of the client/ of the human minds in general."* (Reviewer 1). With this introductory comment my first reviewer perfectly embedded the aim of my research in a nutshell. Moreover the reviewer criticized on *"How […] the poem [is] elaborated later on? […] What would happen if they would – in later sessions – create impressions of her poem by reading them in such manner as they feel. […] What will happen with child plants and co.? What could the client find in this process?" (Reviewer 1).* I highly appreciated reading these further thoughts since they hint towards the boundaries the simple application of the AA has in terms of publication on this case study. In this section of the research project – due to its time frame of a few months – it would break the frame, to follow these questions. Yet, these follow up implications of the AA Poem and work with the allegories could be the source for a broader long term case study, not only to continue the work with the clients' allegories but also to prove if the application of the AA has more long-term impacts. This critique also brings me closer to the idea that the AA method, as presented in this case and in the methodological chapter above (Guenther, in press), is only a semi-closed tool for therapy that does not only stand for itself but needs preparation in the advance (e.g. an established trustful relationship, informed consent of the client, etc.) and has a great variety of follow-up interventions as suggested in the reviewer critical questions. In addition, a second reviewer enhanced the dialogue about this paper by asking: *"Do you think there is a potential use for the interpretation of the Allegory-Poems that could be used with 'normal' poems?*

*[…] I suppose the core question is, how important is the therapeutic context for the generation of the poems and their analysis?" (Reviewer 2).* I highly support the interpretation process of the AA for "normal" poems. As this would rather go into the direction scientific-psychological art history, I was a little hesitant so far to propose this since I am not a professional in this field. Yet, generally speaking, I see great potential to go deeper into this usage of the AA. A first step might be to present the AA to poets, art history professionals, or art critics, do interviews with them, and ask them about their opinion on the application of the AA on common poems. This idea also leads me to the thought to turn the conceptualization of "normal" around and make the A-Poems "normal" poems by exhibiting them as art. This might be even of great scientific interest if the visitors of such an exhibition could be asked to intuitively interpret the A-Poems. Documenting and analyzing the findings might validate the idea of the AA or simply show that the AA is senseless in the first place because allegories are so easy to be understood without any structured method. Additionally, the second reviewer criticized that: *"Participatory research has the power of self-awareness and that the mere fact of observing changes the outcome of any situation. Ideally, the whole purpose of therapy is to change the current state of an individual in a constructive, healthy, and sustainable manner." (Reviewer 2).* Of course, I totally agreed with those sentences. Moreover, it made me think again about the importance of participatory research in psychotherapeutic science. I would even go so far to state that participatory research steps an inevitable quality-criterion for psychotherapeutic science. Needless to say, doing research in a psychotherapeutic context always includes at least two participants: the client and the therapist. An effective and productive process of a psychotherapy is fundamentally based on a trustful relationship between therapist and client, and psychotherapeutic interventions are only effective if the client is compliant and accepting toward the interpretations offered by the therapist in the process (Retzlaff, 2021). This underlines the necessity to include the client's response towards the outcome of the AA, but any scientific psychotherapeutic research project, if it wants to be valid and therefore fulfill the quality criterions.

## References

Böge, K., Mouthaan, J., & Krause-Utz, A. (2020). Effects of dialogical mindfulness on psychopathology: A pilot study's results from a seven-day psychosynthesis course about the inner child. S. D. Churchill (Hrsg.). *The Humanistic Psychologist*, *48*(1), 84.

Bradshaw, J. (2013). *Homecoming: Reclaiming and healing your inner child*. Bantam.

Campill, M. A. & Valsiner, J. (2021). Spiral and helical models for psychology: Leaving linearity behind. In G. Marsico & L. Tateo (Hrsg.). *Human Arenas,* 1–21.

Capacchione, L. (1991). *Recovery of your inner child: The highly acclaimed method for liberating your inner self*. Simon and Schuster.

Carr, S. M., & Hancock, S. (2017). Healing the inner child through portrait therapy: Illness, identity and childhood trauma. A. McDonald (Hrsg.). *International Journal of Art Therapy*, *22*(1), 8–21.

Guenther, L. P. F. (in press). Allegory analysis. A methodological framework for a tool for psychology. In M. A. Campil (Ed.), *Organic metaphors in theoretical models of social sciences (14)*. Springer.

Guenther, L. P. (2021). Homo allegoris: How art perception and allegory analysis reveal the life script ideology. *Human arenas, 4*(3), 471–486.

Hermans, H. J., & Kempen, H. J. (1993). *The dialogical self: Meaning as movement*. Academic Press.

Kalsched, D. E. (2003). Daimonic elements in early trauma. M. West (Hrsg.). *Journal of Analytical Psychology*, *48*(2), 145–169.

Retzlaff, R. (2021). *Systemische Therapie–Fallkonzeption, Therapieplanung, Antragsverfahren: Ein praktischer Leitfaden*. Carl-Auer Verlag.

Valsiner, J. (2001). Process structure of semiotic mediation in human development. *Human Development, 44*(2–3), 84–97.

# Dialogue: How to Use the Wasted Potential of Thoughts and Efforts


**Marc Antoine Campill**

The human being is creating constantly new meaning while positioning itself in an endless stream of information, the time and space we are living in (Campill, 2022). In other words, humans exist in a constant *opposing* stream of information, which results firstly in changing that information stream and secondly in the creation of an individual perspective of the environment – of space and time. A process that needs to be reflected in the context of the human as a communicator: sender and receiver (Organon Model by –Bühler, 1934).

In other words, the role of the human is a shifting one. Oscillating between message sending – from meaning generation to communicated content – and message receiving – confronting and translating – (Bühler, 1934). However, this does not simply underline the existence, of both roles, for an individual and its confronted segment of the environment. It is also of importance for how such a dialogue can be modulated. Language, shared experiences and, of course, the current context are central elements of how two in-dialogue standing units can interact and exchange their knowledge. If one of those units is, for example, reduced quality, misunderstandings can occur and the dialogue shifts into an unwanted direction where the sender loses control and is overshadowed by the noise of the receiver's interpretations/memories (Bühler, 1934; Campill, 2021). As the dialogue is not simply a solid process that runs one way, the role of sender and receiver are constantly shifting between the individuals, which underlines how fragile the dialogue is. Nevertheless, it also underlines the possibility that a certain quality of our communication can be expected, when we stay aware that in every dialogue lies failure and achievements of sharing our meaning.

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The relation between the human as a being in the information stream and as a constant in dialogue standing force – through central interrelation. The human is in short *Gegenstand* (object of interest) of the endless information stream and at the same time part of precisely this stream (Campill & Valsiner, 2021). Furthermore, even though humans are located in the endless information stream, they are not experiencing a holistic process but create instead extended interest in a particular selection of those information opposing them. With this distinguishment, the human initializes an active role in the contribution to the information stream – by reaching into the dialogue between self and *Gegenstand*[1] of interest. It is a moment of complex and dynamic interactions that resulted from the moment where the object of interest opposed the thoughts, actions, and/or perception. An opposition that not simply has been witnessed, it has been experienced – it has been taken into consideration by the reevaluation and new generation of meanings that will guide the human being in the future (Sato et al., 2016). It becomes a *Gegenstand* that offers the observer to break through its past understandings of existence by reconsidering the holistic construction of reality – that has been built up until that specific moment (Meinong, 1904; Valsiner, 2009). A process that can initialize a so strong change/rupture, which could transform the role of the *Gegenstand,* as a brick in the construction of reality, into a trigger for a *Gestalts-explosion* (evaluated individually as strong enough to reorder the meanings of the dialogue and the dialogue units of self and environment), breaking the foundation that holds our understandings of our existence (Bisgaard et al., In Press). As underlined in the sentence before, this is a phenomenon that can result from such an encounter but is in our everyday life more often (staying with the building metaphor) a new brick that is added to the wall.[2] A brick that impacts and changes the construction while generating a certain experience of stability and safety for the meaning-maker – constructer.

## Conditions for a Dialogue

*Why is this awareness central for us as individuals or as a researcher?* The answer to this question is simpler than you would expect it.

[1] Can be anything out of organic, non-organic or metaphysical material. The object represents a construct that has been defined and formed out of multiple information experienced by the meaning maker.

[2] I would like to underline here, that the wall meataphore is a very stable example that is for the general elaboration of thoughts and meaning generations useless and should be avoided. The only reason it has been used in this chapter is to underline the mundane nature of encountering *Gegenstände* in our life and to underline that even though it should be also described as small rupture is needed to emphasize how this encounters trigger in our minds a certain felt stability (not existing in physical context but experienced as such).

It is for once that this awareness is central for our ongoing as humans, as it is a central sense maker for the question of our reason for existence and our role in it. We exist to create meaning, precisely to create individual and so unique new meaning versions. We then use those to create new bonds, with other in the information stream standing *Gegenstände*, that trigger again the creation of new meaning (Abbey & Valsiner, 2005; Campill & Tsuchimoto, 2022). A process that is making us a part of an endless expansion, identical in our generalized purpose but unique in our précised execution of the task.

Secondly, it is a central knowledge for our exploration of phenomena as it underlines the need of extending and elaborating the tools, we use to actively communicate with each other and also how we as individuals can position ourselves in our role as *listener* and *receiver* of information (Campill, 2022).

In a short recap, it becomes clear that dialogue is a process that can be described as the human tool or ability to explore, create, and share unique meaning/knowledge (Valsiner, 2019).

## *Feelings and Thoughts*

Thinking found a strong appearance in social sciences by Lipps (1851–1914), who believed that the inner-*Empfindungen (sensation)* is and always has been the material we as humans used to form the so-called objective thinking. It is here where *Einfühlung* (empathy) plays a central role. The ability to create meaning out of the information received, by elaborating the perceived experiences of the being self (Campill, In Press). In other words, Einfühlung is the tool that connects the – physical – world with the felt and reflected world, while representing a certain divergence between both spheres: self and environment (Campill, 2022). It is a tool that allows both sides to connect, while it cannot simply exist on its own – a tool has more units than only one and so empathy needs interactions and information for improved use. That leads us back to the dialogue, where the information gained and our individual *Einfühlung* to the received material is fed in, a field where Einfühlung and meaning are results based on the exchange of information (Campill, In Press).

## *The Need for Dialogue*

The exchange of information, also known as dialogue, is a process that may exist from the beginning of "the world we know" but is constantly in change. A change that is not only moving in a single direction through irreversible time and space but

is moving in multidimensional *Gestalt* through billions of unique catalysts[3] (Cabell & Valsiner, 2011) – we call individuals – and has in a single frame of times an unimaginable number of different shapes and forms. To improve our ability to understand and optimize our role as catalysts of meaning, we need to work on our communication. Dialogue needs to be constantly adapted to the new conditions we use so that it allows us to gain a deeper understanding of our everyday life and of those phenomena we are observing.

> Research needs more dialogue opportunities and certainly more transparency in such dialogues.

For this purpose, this volume suggests a new manner to use dialogues within research and distribution of research materials. This tool is called "*Dialogue sequence*" and can be found at the end of each of the volume's chapters. An extending opportunity to share the process of *how* the work has been constructed and *how* certain otherwise hidden thoughts can be shared and emphasized with its readers.

The dialogue is directed between the authors of the volume and facilitates a possibility to connect during the processes, instead of working parallel without. A state in which the research topics and the authors can grow, once through the active communication between the authors – feedback receiving – and secondly in a more passive manner – feedback giving after reading each other's works. The *dialogue* sequence is introduced to improve the playground for such reflective dialogues, by sharing crucial information about the authors' thoughts, and introducing potential alternative questions and perspectives toward the shared material, or/and creates new possibilities for the author self to perceive their own works.

For example, we can observe in the written dialogue elements through the volume and active confrontation and *dialoguing* with others – with colleagues – that have actively worked on the crystallization of questions and thoughts that may help to improve the *Einfühlung* of the readers and the quality of the work for each other.

## Exploration of Dialogue Options in the Volume

As can be seen in the volume, the dialogue sequence tool is still a young idea that needs further development and careful reflection to define its place in scientific bodies of work. The contributors were free in their interpretation and realization of the sequence. Everyone was free to choose a format for their dialogue sequence that was most aligned with their understandings and academic needs. A process that has not been influenced by the editors and can be used to allow inspiration for future

[3] Underlining that culture is a catalyst for the individual, connected to it, during their everyday life challenges. Connected with the idea that culture is an individual good (MYCU-culture -- Campill, 2022) that changes during time and meanwhile creates an infinite like number of different versions of the individual construct of culture.

possibilities of how to use the dialogue for an extension in experiencing shared thoughts and so also the information flow itself.

If as its own miniature chapter as in Chap. 8,[4] as inscription (Chap. 7[5]), as Q and A (Chap. 2[6]), and/or as reflective elaboration and extension of our thoughts (Chap. 9[7]), there are many occasions where we can gain more insights toward the material, we are confronting us with (as readers). Nevertheless, the full potential of the tool "Dialogue" can only be perceived after the publication of the volume, when the new dimensions and perspectives are introduced to the readers and challenge their current understanding of a chapters structure. From my side, I can only underline the great pleasure I had to experience the inventiveness of the contributor and the fascinating insights into new ideas. As a reader, I won insights that are for me well-known struggles of finding the right words, the interest in an idea in a topic that has been lost on the side-lines – making space for the central ideas. The contribution and publication of chapters and papers are hard work not only for the authors, but also for the reviewer, editor, corrector, and so on. Work that is hidden and that inhabits efforts and hidden treasures that could have inspired the readers' questions, thoughts, and answers that did not make it into the chapter by the intense reflection between author, reviewer, and editor. Through the dialogue sequence, the mystery behind the scenes is not starting to become completely visible, though they become more visible than before. The dialogue sequence allows us to be reminded that there are more thoughts and ideas behind contributions – unseen based on the restrictions of place, time, and context.

## *Lebensbaum: The Exploration of the Dialogue in Time and Space*

Human constructs, our tools to conserve the interrelated meaning of objects with each other (including the self), are impressive little tools that inhabit two central notions: the notion of sense giving and secondly the notion of bewilderment. To put complex meanings into words is challenging, as they cannot express themselves and need context from their user. Meanwhile, we as humans relate meaning with some

[4] Tsuchimoto, T. (2023). Exploring the "garden metaphor": An inter-modal autoethnography Springer Series Theory and history in the social and human science: The *Organic metaphors in theoretical models of social sciences*, 215–240.

[5] Picione R. L. (2023). The knot and the psyche. A study on the dynamism of the psyche by means of the knotting praxis. In (M. A. Campill), (Ed.) The *Organic metaphors in theoretical models of social sciences*, Cham, CH: Springer 105–136.

[6] Jancosek, N. (2023). Time as an organic metaphor. In (M. A. Campill), (Ed.) The *Organic metaphors in theoretical models of social sciences*, Cham, CH: Springer 15–31.

[7] RodrÍguez Higuera, C. J. (2023). THE ROLE OF METAPHORS IN MODEL-BUILDING WITHIN THE SCIENCES OF MEANING. In (M. A. Campill), (Ed.) The *Organic metaphors in theoretical models of social sciences*, Cham, CH: Springer 159–173.

words even before we dive into the reflections of others. Those misunderstandings of elaborations can happen easily and are often hidden as both reader and writer are sometimes restricted in their ability to communicate with each other – restriction of size for the writer or time to read more works of the author to relate with the understandings written down. As in the case of the first chapter, we dive into the complex and dynamic construction called time and its relation to the human process of experiencing reality.

Time is one of the biggest most crucial dimensions (besides space) and is a unit we need for every process of planning our everyday life. Ironically, it is overfilled with meaning from different fields and is not simple to unify in its holistic terms – whereby numbers have become a great tool to hide the complexity behind generalized simplicity. Time is simple to experience as we all learn to live in the context that time is building up for us, but when we start to grasp the notions of time, our perspectives start to shift in the infinite shape of alternative explanations. In other words, the spoken and written language is not enough to describe such a phenomenon. As in the first chapter, we can emphasize a new perspective of how we can challenge our minds to grasp overcomplex meaning constructs without overwhelming them with information.

Whereby we can also explore a perfect counterpart to Chap. 2 in Chaps. 3,[8] 4,[9] and 5[10] where the notions of space are introduced as well. The landscapes, the sea, and the night sky, or in other words *space*, are not simply explored but used as a metaphor itself to enrich our understanding of the human sense-making ability. It is in the discussions that we can learn more from the author and the field he is working in, by looking into the dialogue between some of his readers and himself.

What becomes visible in this volume of organic metaphors is that it is art that allows us to see more and to dive deeper into the layers of a phenomenon, whereby it is the dialogue that emerges out of this art that can be shared and that can inspire us to reflect and reorder the own positionings. Our empathy toward a phenomenon can be challenged and can be improved by the emergence of new approaches, visualized by the artworks and metaphorical illustrations. Improved even more by the active elaboration of information through extended thoughts shared with those who want to dive deeper into the actual phenomenon. It is crucial to take into consideration that the borders of art and science are fluid and that the shifting between those both spheres is identical to a dynamic process. I would like to even emphasize the understanding that without the notion of art there would be no such thing as development in science, and vice-versa. It sounds quite simple but to archive a

[8] Morioka. M. (2023). The regeneration of the space of landscape: Where experiencing is fundamentally sustained. In (M. A. Campill), (Ed.) The *Organic metaphors in theoretical models of social sciences*, Cham, CH: Springer 33–47.

[9] Campill, M. A., Bisgaard, C.H. and Valsiner J. (2023). Ohh-- *Guovssahas* above my meadow: Introducing the *Gestalt-explosion* as the core factor of meaning-generation. In (M. A. Campill), (Ed.) The *Organic metaphors in theoretical models of social sciences*, Cham, CH: Springer 49–64.

[10] Campill, S. (2023). *Everything Is Bound to Transform: On Knowledge's Flow*. In (M. A. Campill), (Ed.) The *Organic metaphors in theoretical models of social sciences*, Cham, CH: Springer 67–88.

connection between two fields we need to allow communication between both spheres – through us as sender and receiver (Bühler, 1934; Campill, 2021). It is the dialogue, the connection field between the layers that we need to cultivate (Campill, 2022).

### *Why Is the Dialogue So Important?*

The *dialogue* was introduced in the beginning as the essence of co-existing and so of existence itself. Whereby the dialogue is not perfect from the beginning on and can also not reach perfection. As humans dialogue is always in charge, while we cultivate ourselves (Campill, 2021) we are also cultivating the tools to express ourselves. In other words, it is not only that our methods and manners of dialogue are changing, but also their usability is changing with our growth. Dialogue is challenging as we are opposed to different – individual – lifeforms and every start of dialogue – for a specific information flow as a goal – needs to be adapted to the context: individual and both-sided positioning. In scientific work, we create a setting in which the approaching of each other is more relieved through the construction of definitions readers can use to approach their understanding of the contributors. Nevertheless, when multiple definitions are challenged, we often miss to develop a definition – in sufficient manner – by a single work and attempt, all the needed insights we might miss based on a defined content size or based on our neglection as we, who work in the field, tend to believe that something may be obvious or simple to grasp.

The biggest danger in dialogue may lie in the belief that we use the same definitions for a construct, while we use completely different perspectives, which creates a misunderstanding that cannot be changed that easily (Campill, 2021). Therefore, the extension of a "Dialogue" portion in each chapter was included. Thus, the contributors get to explain their work embedded in a discussion-like exchange. This leads to more opportunities to check if their own writings and work conveys accurately their views and does not risk to be misunderstood. It is not a perfect tool that will always show the constructs we would like to challenge, but it is one opportunity that is easily accessible for the readers of the works and can allow a crucial possibility to resolve distress in our dialogues before they can result in bigger misunderstandings.

## Concluding Notion of Dialogue

Dialogue is a tool that has been cultivated in the past and needs to be cultivated in the present and future. An oddly simple task, as it is in line with a core element of our existence. We communicate starting the very moment we come into existence. Meanwhile, it could not be a more complicated tool as its use depends on the

individual awareness of the dynamic-complex nature of the shared content and the opposing receiver and sender unite. This leads us to the need of challenging the concept of dialogues in our daily routines in such manner that our understanding of the tool can be cultivated in the for us most promising manner – for a better environment and self-understanding.

## References

Abbey, E., & Valsiner, J. (2005). Emergence of meanings through ambivalence. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research, 6*(1).

Bisgaard, C. H., Campill, M. A., von Fircks, E., & Valsiner, J. (In Press). Layered Attunement: Internal dialogues of intersubjectivity. In *Dialogic perspectives in times of change*. Oxford UP.

Bühler, K. (1934). *Sprachtheorie* (Vol. 2). Fischer.

Cabell, K. R., & Valsiner, J. (2011). Catalysis: Cultural constructions and the conditions for change. *Journal of Integrated Social Sciences, 2*(1), 1–12.

Campill, M. A. (2021). Dialogue around Favors: Introducing a field model of how service is psychologically possible. *Human Arenas*, 1–16.

Campill, M. A. (2022). *Cultivation of humanity: How we can stagnate within the eternal flow*. *Culture & Psychology*.

Campill, M. A. (In Press). Theodor Lipps: The aesthetics of perceiving the ordinary. In *Springer series "Theory and History in the Human and Social Sciences"*.

Campill, M. A., & Tsuchimoto, T. (2022). Moving up the stream: Beyond resistance to counter move. *Integrative Psychological and Behavioral Science*.

Campill, M. A., & Valsiner, J. (2021). Spiral and helical models for psychology: Leaving linearity behind. *Human Arenas*, 1–21.

Meinong, A. (1904), «The theory of objects», Chisholm, R. (red.), Realism and the background of phenomenology, 1960, The Free Press of Glencoe.

Sato, T., Mori, N., & Valsiner, J. (Eds.). (2016). *Making of the future: The trajectory equifinality approach in cultural psychology*. IAP.

Valsiner, J. (2009). Between fiction and reality: Transforming the semiotic object. *Sign Systems Studies, 37*(1/2), 99–112.

Valsiner, J. (2019). Generalization in science: Abstracting from unique events. In *Subjectivity and knowledge* (pp. 79–97). Springer.

# Conclusion, Reinventing Organic Metaphors: Following Innovation into the Wasteland


**Marc Antoine Campill**

## Thoughts from the Author

Organic metaphors are one of the most astonishing phenomena in the human process of finding meaning in an environment that is overflowing with information, whereby information is definably present, but rarely fully relatable to the observing being. When it comes to human effort to give sense to their environment, it is unbelievable how innovative we are. Meanwhile, we need to be aware that we, as human beings, use what we are bound to—our innovation is linked to a sense-makings *starting point.*[1]

Ironically, there is a metaphysical (and so invisible) layer in the human process of existence (on an individual level) and co-existence (within an environment) that gives the introducing paragraph a surprising turn. We use what we achieve to comprehend, but this does not mean that it firstly needs to be physically existing and secondly needs to be bound to actual rules of reality, which we try to capture through *Naturwissenschaften*. Returning to the organic metaphors, this means we are not simply confronted with real natural facts about organic existence, and we are confronted with a combination of our meaning-making, observation abilities, and

[1] It may be essential for the readers to empathize that the term "starting point" is not related to a fix period in our development to evolve into what we understand as human. It simply represents the fact that there is an intertwined starting sequence that for our current understanding is only generally able as beginning but not as clear timeframe we can retrace.

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the actual phenomenon. It may sound provocative, but it needs to be said: *There are no knowledge constructs that have not been generated without a notion of imagination*.

Related to the first layer of organic metaphors, the organism[2] is inserted into a harmonious interaction between X and Y while processing individuality. The organism is an element that is defined to belong to or works in the context of a complex organism collaboration (as in an organ). Can we understand such a complex life form that lives from the environmental overflow, while being influenced by so many factors that extend our human ability to completely manifest in our meaning-making? *No,* but we can empathize it through our unique ability of *Einfühlung*[3] (Lipps 1903, 1906; Campill, In press b). An ability that gives us a central understanding of two layers of meaning contributors: the *meaning-maker* (observer) and the *phenomenon-initializer* (overserved).

This leads us to a first take-home message, for the readers of the volume "reinventing organic metaphors for the social sciences". Social sciences require tools such as "organic metaphors" that allow us to return to a central dialogue with our co-existing scientific research fields that have emerged out of the "Naturwissenschaften" and "Philosophy". We need to reattach with our co-existing fields as both sides; the mind and the by researchers around the world observed phenomena are intertwined within a nexus of meaning- and sense-making. The reintroduction of organic metaphors may allow us to find relations between us as individual beings and us as environmental sub-units of a whole; this may allow us to find inspiration and new starting points to dive deeper into central phenomena and may allow us to create new inspirations to empathize with explored phenomena for everyday life use and the researchers' positions towards "*Naturwissenschaftlichem*"—understanding (perspective and positioning).

## The Wasteland

In the following paragraphs, the specific relation between the title and the reflected material will be elaborated. To speak about the scientific perspective on everyday life challenges by using the wasteland, allegory may appear harsh; however, it serves its intended purpose and highlights the field-specific facets.

The term wasteland is commonly used for a misunderstood field. It is often described as an area that inhabits nothing of quality, especially in the context of

[2] Belonging to the animated nature.

[3] Einfühlung, or in English often used terminology, empathy. An ability that as German terminology inhabits a central extension towards the concept of empathy. A cognitive ability, elaborated by Theodore Lipps, that describes how perceived objects (organic, inorganic, or metaphysical) are enriched in their meaning by combining their sensual appearance with cognitively reflected content, including emotional threads, from the observers (Campill, In press b)—a process that operates purely in the metaphysical layers of the observer/meaning-maker.

productivity (from our perspective) or in general terms for the occupation by any life forms of interest (from our perspective)—contributing to any resources. Often re-traceable in lingual context by the description of a specific research field that is deemed sufficiently studied, empathizing the belief that no further inquiry within the field will produce new or relevant results.

> Honestly, such a belief is closer to wishful thinking than any scientific evidence. Research is as complex as its inventors, whereby one central difference lies between both constructs; the researcher is a human being that generates meaning while research itself is only a construct that shifts in its meaning and provides nothing on its own -except a space where the meaning of multiple individuals can be projected and discussed.[4]

Parallel to the belief that a wasteland is voided of value/usefulness for humankind, there is an alternative positioning towards reality (a position that roots from other perspectives). A wasteland is no different from a meadow.[5] Its potential is simply not to be acknowledged by the observer. In other words, I want to highlight that the wasteland is a playground for explorers and inventors. The wasteland's potential belongs to those who overcome societal mainstream thinking and invent new tools and theories by combining what has not been of interest before. Social sciences (and for the matter, science in general) is, in other words, such a playground for us that allows us to see the world with other eyes or in a new light. By exploring what seems to be common and by combining or splitting in a novel manner, overlooked treasures of knowledge can be discovered. Knowledge has constancies but is for a certain frame of time never guaranteed to be appliable—which makes knowledge a fluid good that needs to be enjoyed with caution when used as a definition with persisting meaning. The context, the meaning-maker, and their environment are in constant change, and so their resulting knowledge especially in social sciences needs to be challenged. Otherwise, the use of social sciences becomes meaningless or even dangerous as they are not used for its actual purpose: the quality of the current population but for the conservation of past beliefs that have no place in the society of today anymore. What in the past has been defined as useless has the potential to become innovative[6] by introducing new knowledge and perspectives or even essential for our survival and does not imply that the past has been wrong or the now will become wrong in the future. *Naturphilosophie* has been a field where organic metaphors have shown great use for the development of social sciences, whereby its disappearance simply proved that it has not been the right tool and context for its persistence through the following scientific streams. I suggest that a new start for organic metaphors could be now, during a time where forgotten perspectives from the past may lead to new approaches needed to reach new spheres. That leads us to the actual goal of the paper, the exploration of a so-called

[4] Taking into consideration that the term is again only a tool and not a space provider itself.

[5] A piece of land where plants as flowers and trees are freely/wildly growing. A theoretical metaphor that has been constructed to elaborate the inner meaning-making process of human beings and allows to empathize the self as temporary concept that flows through the multitude of conserved and cultivated meanings and believes—the individual culture (Campill, 2021a, 2022).

[6] Of course, it can also stay useless.

wasteland: towards the organic metaphors and its reinvention as a space of high-potential new meaning for the social sciences.

## Exploration of the Volume: Reinventing Organic Metaphors

### *How to Manage Time and Space*

Without time, we cannot develop nor change, and there would be no growth or sense-making. It is only through our ability to outlast a moment that we can speak about being alive and experiencing reality. Nevertheless, time does not equal the phenomenon of time, the word is a temporary shell for the phenomenon itself, a word that is bonded towards the phenomenon, while the phenomenon stays untouched (Campill, in press b). Chap. 2 (time as an organic metaphor) (Jancosek, 2023) emphasized that time has similar characteristics as the meadow[7] (Campill, 2021a; b) and describes how the perception of the world can change, while the essence persists in its dynamic notion of existence (Campill & Valsiner, 2021). A meadow is easily imagined and experienced, whereby its construction in shapes and roles are endless: garden, forest, swamp, desert, wasteland, playground, and so on. The same multiplicity of shapes lies behind the notions of what we describe as time. We can count time, but how we perceive it is depending on those experiencing it in that timeframe; an hour feels endless long in school, unbelievably short when we meet friends. In theoretical constructs, time is often frozen and separated into main elements—framed—while time itself will never allow us to stagnate. The notions of time are like natural disasters unavoidable for those confronted with it. However, it is the humans strongest gift to use his/her experiences to create meaning and to use the experience as a tool to approach what is part of our surrounding -- while it stays in itself unreachable. In other words, time itself is already an organic metaphor that we try to use in our *Naturwissenschaflichen* reflections to reach a better understanding of the actual phenomena behind it.

In contrast, we can introduce the notions of space, the absolute counterpart of time that allows the world and its citizens to exist: especially t*he Landscape and its relationship to our ability to generate meaning.* Central is to underline that space itself tends to be perceived as a non-organic tool, lifeless squares or circles on paper, and screens; nevertheless, space is alive and should be perceived as landscape: a field of multiple in relation complex elements that inhabit the space and are through that bonded—inseparably—to its context. Our understanding of space is essential when it comes to making sense of our environment. As described in Chap. 3 (the

[7] A model that has been created to emphasize the complex and dynamic notion of the identification and culture construction from an individual. The meadow represents the essence of the shift between human imagination and persistence in a shared reality and how we manage in cognitive—metaphysical—layers to persisted as such individuals in the notion transition between part of a whole and essence of itself.

regeneration of the space of landscape) (Morioka, 2023), we can sit beside each other's, while we experience the notion of interference with each other. The emergence of something invisible and indescribable is that we tend to describe as a zone (space) of intersection: a zone, free from classical natural rules (as generated from physics, biology, or chemistry). The dialogue with each other through the emergence of such invisible catalytic[8] areas is what creates our ability to exist, share, generate, and experience meaning (Campill, 2021b). Our awareness of such hidden layers is invisible but can become retractable through the metaphorical use of space. Nevertheless, the use of space as organic unit allows us to approach phenomena even more, as their dynamic and interrogative nature is underlined—not excluded—in our exploration of its meanings. The organic nature of the metaphor is in other words what underlines once, and for all that, our human ability to experience time and space is restricted in subjectivity and that meaning is constantly fluctuating in us. We are immersed in the notion of a narrative in everyday life or research, which leads us to the central awareness that our quest for objectivity is one of the reasons we lose track of how we are looking at something whereby our understanding of such a state of disorientation[9] is what allows us to use the information received for optimization in our meaning generation and sharing. The loss of track—may be of time, space, or both—is what, for example, can allow us to emerge a landscape from a different angle and sustains the groundwork for a new experience.

It is time and space in relation that creates the nature of dynamics and so of movement; while speed stays a mixture of both elements, it becomes something own, something that also represents our essence of existence: as we express our existence through movement.[10] As a most astonishing example, we can use the concept of space as a metaphorical environment, where meaning does not exist and where words can emerge from while free from their need for existence. A blank space that can be underlined as emergence of the significance of meaning generated from the voices (inhabiting the co-existence of sound and silence) of the senders in the environment. In other words, the emergence of meaning is like the birth of new worlds, created out of the information stream wrapped around us. A process that is always new, is meanwhile always in repetition—as new information emerge and new procedures to analyse those are generated; nevertheless, their notion of construction and reconstruction stays repetitive. We could say, for example, that it is always a new art emerging, but it is always (only) art that is emerging. The sound is echoing through time and space, like the human lost in transition (of imagination and experienced reality), while every encounter between the sound and the being is

[8] Used to underline how they influence through the simple existence of such areas result in the possibility to impact the development of the self and its positioning between self and environment (Cabell & Valsiner, 2014).

[9] The absence of such an awareness does not result in the missing of the new experience but in a deformation of the meaning generation that resulted from the experience made.

[10] It needs to be underlined that even though both examples have been introduced separately, time and spaceare clearly inseparably and so the notion of a co-influencing nature has been clearly visible in the previous three paragraphs.

like an eternal proof that even when we are in "an endless act of transition", we are therefore also able to experience an infinite number of nano-like arrivals. In other words, these repetitions of our approaching from the imagined to reality is creating our ability to experience satisfaction in our connectivity with our surroundings, and awareness of existence, while it reminds us of our existence as beings of transcendence.

It is crucial to remember that the generated organic metaphor is bonded to its observer, which leads us to a connectivity point in Chaps. 2 and 3 through Chap. 4 (Ohh-- *Guovssahas* above my meadow) (Campill et al., 2023) where the interrelation between time and space is connected through its transition point the current self and its constant confrontation towards the changing world and the changing self. Our experience of reality is in other words bonded towards an endless confrontation with new ruptures of our imagination towards our self-environment dialoguing.

Whereby some of those experiences are perceived stronger or weaker, depending on the observer themself, a strong rupture (through an experience) is between self and environment, resulting in the drastic re-evaluation of the own, until now generated, meaning and understanding of oneself, wherefore it can be described as *Gestalt explosion.* Furthermore, in Chap. 4 and 5 (Everything Is Bound to Transform: On Knowledge's Flow) (Campill, 2023b), the landscape has been used as well to once introduce the notions of meaning-making through complex inner dialogues and dynamic interrelations—triggering personal challenges over their whole life span.

It is in Chap. 5 where a final notion of organic metaphors, out of the category *Lebensraum,* can be experienced. After an individual made meaning, this meaning construct needs to be stored and used constantly. A process that is extremely complex and difficult to gasp if one solely uses collected raw data by connecting the data with the natural environment of a meadow with water (an alternative to the classical meadow, where the development and dynamics of the environment and the human ability to remember, those related to, experiences can be reconnected into a single metaphor). Meaning-making or/and learning happens throughout our whole life span. By adding the circulation of water, we gain a deeper awareness and understanding of knowledge as a unit that is always in flow and transformation. Furthermore, past and future re-obtain a central role in our knowledge storage.

Meaning is connected to impressions and memories, which are information united and overfilled with a multiverse of signs. Personal boundaries of mind and psyche are strongly influenced by the own environment—as the climate—while inhabiting a dynamic *Gestalt*. The *Polysemicmultivoice*[11] in the self (PSM) represents a context for the dialogue, whereby the material of experiences and knowledge has first entered the self as separate units that feed the multiple positions with information—needed to continue the dialogue, which results in the current self. It is water that allows us to emphasize not only which of information can hide in every corner of our metaphysical space, but also empathize how extreme conditions can

[11] The *Polysemicmultivoice* is a construct that represents the multi-dimensional and dynamic notion of the current self (Bisgaard et al., in press). The current self is represented in this theory as a stream of in-dialogue standing I-positions (Hermans, 2001) that fuse in a temporary nexus of voices that decide the current perspective and positioning towards oneself and the environment.

interfere the flow by forcing the information stored into new agar conditions (frozen, steam). Nevertheless, the conditions should not be described as purely obstructive, as a temporary state can improve the current self into a more harmonic state, as only a fluid state could offer.

## *Believes and Behaviours: Empowered in Organic Extensions*

As indicated in the last paragraph, the observation of an organic concept and the elaboration into a metaphor are not restricted to time and space but relate to every organic concept and its thoughts, beliefs, and behaviours. An organic metaphor always includes one concept into the spheres of another. In other words, the individual and their behaviour are also included in the organic field. It is also the act of doing that has to be implicated in the organic context of the environment and actor.

In Chap. 6 (Allegory Analysis, AA) (Guenther, 2023a), for example, the AA method is introduced, a methodological example of exploring the PSM of a self, that requested support from its environment. The I-positions of the current self are explored through the dialogue between the client and the therapist, whereby the received information is re-elaborated in an artistic reflection through the generation of I-poems. I-poems are like thoughts, unstable constructs that are temporary, shifting as soon as new information emerges. Nevertheless, the I-poems are what we need to explore to dive into a deeper understanding of another (individuals). A method should not stagnate in a fixed belief, generated once by a therapist. In contrast, as the AA emphasizes, the process should stay in transition, by using tools that trigger the central self-awareness of an individual that is hidden in the deep layers of cognition, hyper-generalization (Valsiner, 2021). As implicated in *Lebensbaum*, the notion of organic metaphors also lies in the awareness that organic metamorphose is used as a materialization of metaphysical constructs. Thoughts are received from through words, but much more they are received from through the imagination from the concerned re-elaborated in free expression forms as the construction and reflection towards art.

This implies that we can use human behaviour to materialize a more dynamic understanding of a phenomenon of interest. As in Chap. 7 (The knot and the psyche. A study on the dynamism of the psyche using the knotting praxis) (Picione, 2023), the knot or either the act of knotting becomes a very organic example of how we as humans are shifting through space and time while able to experience such an existence as living a life. By the act of knotting, we connect threats, we let them approach each other, and we disconnect them. Different threats are combined into a new one, a slightly bigger, and differently colourized one. The same process is hidden behind our inner process of meaning-making. It could be said that the thread is representing a behaviouristic *Gestalt* of how we generate meaning, semiotic praxis, in the metaphysical space of our self and culture. The note represents the inner notions of self-constructions, the I-streams, and their inner fragmental sub-streams are transformed into new shapes and new bonds, representing the deep interrelation *of ourselves*, *our behaviour and thoughts,* and our positioning and relationship towards the

environment. Threads can represent how every existence and every behaviour imply the notions of existence--inexistence, as every connection of fibrates shows the connectivity and disconnection of a thread in a moment. Meanwhile, the practice of knotting goes further and indicates its constant development, the importance of knotting individuals' desires, abilities, and goals, and its change over time. Everything is in change; the sender of meaning, the tools that allow the construction of meaning, the meaning-maker, or the context. It is in the notion of knotting where we can find and observe the fulcrum of the semiotic activity that can help us to empathize with our everyday life challenges of generating meaning.

Metaphors emphasize the complex interrelation that we as lifeforms are standing in. If everything is bonded connected and resulting in tensions and invasion of meaning, research as well needs a central extension. In Chap. 8 (Exploring the "garden metaphor") (Tsuchimoto, 2023), the interconnectivity becomes even clearer, while reconnecting cultural psychological understandings and methods as IMPreC and TEA (Valsiner et al., 2021) steps into the organic example of the meadow. The self and its dialogue with the environment are bonded towards our ability of "*how we feel into it*" (our felt sense). It is especially our understanding of the concept of aesthetic experiences that can improve our understanding of how fragile and complex the meaning we generate is. A simple rupture can result in the possibility of a drastic change in the own understanding of self and its cultural setting if the rupture is resulting in a Gestalt explosion. The rupture has in other words transformed into something that inhabits an individual essential meaning that can lead to the triggering of self-change. The essence of such a changeset can be retraced by our understanding of aesthetics, as we describe *Einfühlen* differently into a moment, place, and context. If we return to the act of cultivation (Campill, In press a), the field—meadow or garden—and towards its citizens and caretakers, we can observe that human development is strongly influenced by our aesthetic sensations of various scents in our daily life. The growth we experience as individuals, and its nature of meaning being built on the essence of each other.

The act of taking care of our garden, and shaping it, triggers how we perceive, and how we feel, and so also underlines how our human body and social body within its dialogical milieu can persist in a change while experienced as contingent *Gestalt.* And so also the relationship between gardens and an individual as the author or as a researcher are intervened and needed to be explored for example through the use of autoethnographic tools that contain how a research work has been produced and how certain elements have grown through their specific experiences—optimizing the readers potential to feel into the analysed topic.

This leads us to a final meta-reflection towards the role of organic metaphors as such tools to extend the perception of the current scientific understandings. By confronting the previously elaborated chapters with Chap. 9 (The role of metaphors in model-building within the sciences of the meaning) (Rodriguez Higuera, 2023), we can gain the possibility of such a meta-reflection. Organic metaphors are identical to classical metaphors created to give us a cognitive model of specific properties. The transition from the actual object of the study to a metaphorical visualization is grounded in the idea that we may be able to generate a common sense of the meaning behind a phenomenon and its relation to our complex reality.

Classical metaphors are nevertheless unable to keep up with the constant emergence of new insights and extensions, as their technical nature does not allow temporary contradictions in the inner state of construction. A new panorama is needed to allow us as an explorer of meaning to approach the field of research closer to the theoretical framework. To extend our understanding of relationships, between researchers and tools, we need to develop new tools that can follow dynamic changes intuitively, wherefore an intervention of metaphors by extending our view towards the agency found across living beings will be favourable for our future in field development.

But the use of organic metaphors can be extended even further, by considering a certain notion of cultural psychology and the desire to overcome comparing and to use diversion as potential to enhance the knowledge of phenomena. And what field could have a better requirement for such a notion of cultural understanding than the exploration of different lifeforms themselves.

## *Converting Meaning: What Animals Can Learn from Another*

A central example of such lifeforms we could use to extend our understanding of the human ability of existence and co-existence can be found in Chap. 10 (Ice cream) (Campill, 2023a). Ironically, the paper itself uses two layers of visualizing human behaviour: by using the example of individuals who have experienced a period in their life as *Hikikomori*[12] and secondly the extension of our understanding of existence as a lifeform by adding the parasitological insights of how the world and how life looks like under parasites. A challenging task as we must take into consideration that life in a *Hikikomori* state as well as life as a parasite is in our common understanding dominated by extremely negative connotations. Fascinating is to take into consideration that closes to every form of human co-existence can also be found as a parasitical behaviour and that biologically seen that our life would not exist without parasites as central units in it. Humanity itself can be seen as some kind of parasite, embedded in the ecosystem and so a central element of the homeostatic regulations of our planet. Furthermore, the notions of parasites can not only be found in our daily behaviour but also in our inner meaning generation and cultivation of our proper cultural identification (Campill, In press a; 2022). We are not only parasites, with parasites in our physical bodies, we are also "contaminated" or either enriched, by the notion of parasitic co-existence in our construction of meaning, thoughts, and behaviours—emphasizing the PSM of I-positions as a pool of parasitic harmonization and dialogization. A metaphorical tool allows us to emphasize our need to stop using *comparing* as a tool of information generation, as such

[12]A terminology that represents an individual's tendency and behaviour to withdraw from the lived-in social environment by self-isolation and minimalized contact to other individuals and towards the social stream—that could also be described as extreme coping method towards experienced trauma. A phenomenon that is globally represented but has been first exposed as mental disorder in Japan (Saito & Angles, 2013).

research has no further need for the exploration of meaning and phenomena. Instead, the enrichment in connecting and extending multiple perspectives allows us to learn about the most central dynamic laws of the meaning generation that would stay hidden in a nonsense fight about who is right or wrong—especially when we take into consideration that in every perspective notions of reality and fiction can be found. Extending, for example, the state of *Hikikomori* from a state of dysfunction into a pioneer-like evolution of stress coping methods or even lifestyles, that will in a technologically influenced future become part of our everyday life, making the notion of *Hikikomori-hood* a regulatable and relatable part of our toolbox as human beings, which needs to be further explored (Campill & Tsuchimoto, 2022).

As a short extension of this point of view, we can return to the organic metaphor of a meadow or in this case an example of a forest, where even more the role of the population of the forest itself in its multiracial co-existence becomes a metaphor of the individual growth of our PSM, which represents our current self and its position and growth in its more holistic shape as a fragment of the whole self-generated/cultivated culture (Chap. 11, Biocenosis of the self) (Campill & Von Fircks, 2023). The bark beetle, for example, gains the role of a central cultivator, or caretaker, of the forest and so of the self. The referencing towards biocenosis is representing the central need to take into consideration that the self needs to stay aware of its multidimensional, PSM, *Gestalt*.

An awareness that is simply needed as a reminder that the potential behind the extension and self-expression allows a larger field of possibilities as a reduced one; however, it needs to be reflected and would lose again its enlarging nature as soon as the information flow overruns the individual itself. Tension may always exist in ourselves, and temporary reduction or enlargement can be simply seen as central comping methods to handle rupture or even *Gestalt explosions* that have overwhelmed us temporarily. The stagnation of such a more monocultural or overflowed forest results in a self-harming state where destruction instead of cultivation becomes the main task of the cultivator (Campill, In press a; Campill & Von Fircks, in press). A work that reminds us that our balance in self, culture, and environment is impossible to be labelled as if not elaborated and communicated by the concerned one themselves.

This leads us to a final practical example of the AA of Chap. 12 (The case of Isepal) (Guenther, 2023b), which we can also use to combine the volume's understandings into a practical approach. The AA is a tool that not simply uses organic metaphors, but that allows the concerned individual to create and describe their metaphors—all of them can be extended into an organic and so dynamic context (if through another biological construction, environmental context, or integration of the inaction metaphorized process) (Guenther, 2023a, b). Isepal and Gunther[13] created in their dialogue a field where such dynamic metaphors have been able to emerge and become able to be visualized for both in dialogue standing individuals, what had been hidden in the cognitive space of Isepal meaning-making is now allowing both to learn more about herself through the exploration of her reflection and the extension of our *Naturwissenschaftlichen* understandings of the created metaphors embedded a reflected through the artwork called I-poem. Plant and

[13] The dialogue emerged out of the case study of Isepal, published in this volume.

butcher become temporary roles that allow them to access the PSM of Isepal's current self and to elaborate her inner tensions while conserving the awareness of both individuals in the process as in-dialogue standing units and as experts of their positionings (Campill, 2021b). Meanwhile, they also underline the interwoven nature of the own identification as plant and butcher sound as to separate unites, while representing their existence through a shared space, Isepal's current self.

## Final Conclusion

Organic metaphors can be seen as a tool that will allow us in future to overcome our stagnation in past knowledge generation procedures. We tend to believe that certain areas have been over-explored, whereby the question is never directed to *what field we are confronting* but to *how we approach* it. There is no wasteland for the explorer, only the explorer who is wasting their time in a meadow they cannot relate to.

Metaphors have to be treated in the same manner as individuals, taking the environment, the particular culture, and the current self into accreditation, while exploring it in consonance with its proclaimed needs and role in the influenced environmental context. Nevertheless, the use of metaphors will in the future define our persistence and developmental change in research and social co-existence. Inclusion will, for example, never become reachable if we: 1. Are not giving up on using comparing to explore psychological phenomena and 2. Are not starting to include the diversity of observations as part of the holistic processing of human social and individual growth. Our behaviour, our precise environmental context and our behaviour and reflection as an individual are inhabiting the concept of organic life. There are no such things as inorganic visualizations of organic procedures, as the machine itself cannot avoid physical reality being influenced by the organic flow of life. Plant growth, erosion, rust, moisture, and human failure are only some examples of how mechanical cycles are influenced by organic life—not even taking into consideration that the inventor self and multiple materials are organic. For industrialization, parts of this symbiosis may not be of relevance, but as explorers of organic lifeform's behaviour, meaning generation, and interrelation, the need for our organic awareness and confrontation always will be of central relevance.

## References

Bisgaard CH., Campill M. A., von Fircks E. and Valsiner J. (in press) Layered attunement: Internal dialogues of intersubjectivity. *Dialogic perspectives in times of change.* Oxford UP.

Cabell, K. R., & Valsiner, J. (2014). Systematic systemics: Causality, catalysis, and developmental cybernetics. In *The catalyzing mind* (pp. 3–13). Springer.

Campill, M. A. (2021a). Towards a Wholistic model of identity: Why not a meadow? *Integrative Psychological and Behavioral Science., 55*(1), 112–127.

Campill, M. A. (2021b). *Dialogue around favors: Introducing a field model of how service is psychologically possible* (pp. 1–16). Human Arenas.

Campill M.A. (2022). Cultivation of humanity: How we can stagnate within the eternal flow *Culture & Psycholgy*.
Campill, M. A. (2023a). Ice cream: An exploration of outsiders by parasitological insights. In M. A. Campill (Ed.), *The organic metaphors in theoretical models of social sciences*. Springer. 177–196.
Campill, S. (2023b). *Everything is bound to transform: On Knowledge's flow*. In M. A. Campill (Ed.), *The organic metaphors in theoretical models of social sciences*. Springer. 67–88.
Campill MA. (In press a). Cultivation in self and environment: When a voice echoes from one garden to another. *The semiotic field of the garden. Advances in Cultural Psychology.*
Campill M. A. (In press b). Theodor Lipps: The aesthetics of perceiving the ordinary. Springer series "Theory and History in the Human and Social Sciences".
Campill M.A., and Tsuchimoto T. (2022) Moving up the stream: Beyond resistance to counter move. Integrative psychological and Behavioral Science.
Campill, M. A., & Valsiner, J. (2021). *Spiral and helical models for psychology: Leaving linearity behind* (pp. 1–21). Human Arenas.
Campill, M. A., & Von Fircks, E. (2023). Biocenosis of the self: The dynamic of relationships. In M. A. Campill (Ed.), *The organic metaphors in theoretical models of social sciences*. Springer. 197–214.
Campill, M. A., Bisgaard, C. H., & Valsiner, J. (2023). Ohh-- *Guovssahas* above my meadow: Introducing the *gestalt-explosion* as the core factor of meaning-generation. In M. A. Campill (Ed.), *The organic metaphors in theoretical models of social sciences*. Springer. 49–64.
Guenther, L. P. (2023a). The story of Isepal – A case study allegory analysis. In M. A. Campill (Ed.), *The organic metaphors in theoretical models of social sciences*. Springer 215–240.
Guenther, L. P. (2023b). Allegory analysis: A methodological framework for a tool for psychology. In M. A. Campill (Ed.), *The organic metaphors in theoretical models of social sciences*. Springer 89–103.
Hermans, H. J. M. (2001). The dialogical self: Toward a theory of personal and cultural positioning. *Culture & Psychology, 7*(3), 243–281. https://doi.org/10.1177/1354067X0173001
Jancosek, N. (2023). Time as an organic metaphor. In M. A. Campill (Ed.), *The organic metaphors in theoretical models of social sciences*. Springer 15–31.
Lipps, T. (1903). *Ästhetik: Psychologie des Schönen und der Kunst*. Leopold Voss.
Lipps, T. (1906). *Die ästhetische Betrachtung und die bildende Kunst*. Leopold Voss.
Morioka, M. (2023). The regeneration of the space of landscape: Where experiencing is fundamentally sustained. In M. A. Campill (Ed.), *The Organic metaphors in theoretical models of social sciences*. Springer 33–47.
Picione, R. L. (2023). The knot and the psyche. A study on the dynamism of the psyche by means of the knotting praxis. In M. A. Campill (Ed.), *The organic metaphors in theoretical models of social sciences*. Springer 105–136.
RodrÍguez Higuera, C. J. (2023). The role of metaphors in model-building within the sciences of meaning. In M. A. Campill (Ed.), *The organic metaphors in theoretical models of social sciences*. Springer 159–173.
Saito, T., & Angles, J. (2013). *Hikikomori: Adolescence without end*. University of Minnesota Press.
Tsuchimoto, T. (2023). Exploring the "garden metaphor": An inter-modal autoethnography springer series theory and history in the social and human science: *The organic metaphors in theoretical models of social sciences*,. 137–157.
Valsiner, J. (2021). Hyper-generalization by the human mind.. Psychosozial-Verlag.
Valsiner, J., Tsuchimoto, T., Ozawa, I., Chen, X., & Horie, K. (2021). The inter-modal preconstruction method (IMPreC): Exploring hyper-generalization. *Human Arenas*, 1–19.

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