

Biocenosis of the Self: The Dynamic of Relationships



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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 systems¹ 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

¹The “*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).

²During 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.,



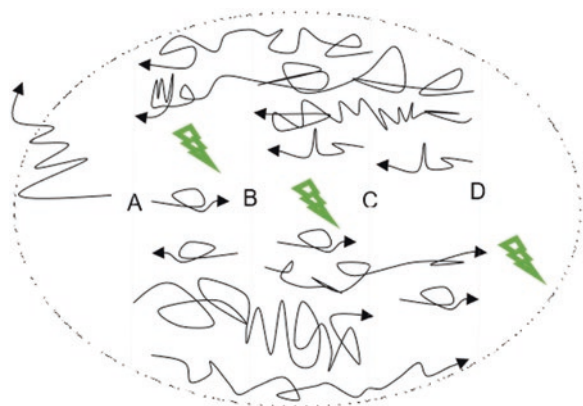
Fig. 2 Deer in a heterogenous vegetation

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 counter-measures 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 verschiedenaltig 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 verursachten 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 cleaner 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.

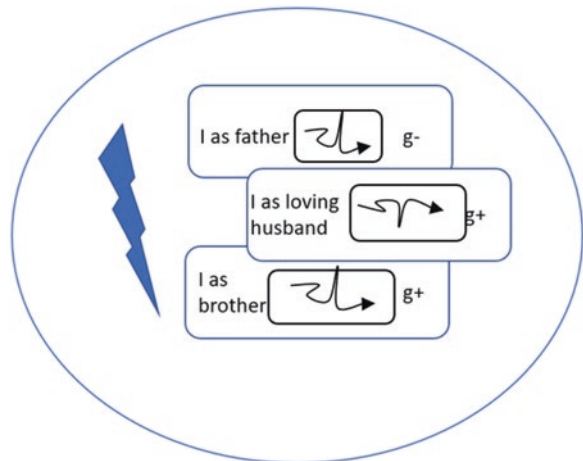
Now, with the dialogical self-theory, things get complicated. Every I-position shows a specific action field that is structured by needs and goals. These needs and goals might converge or diverge at different times. It is especially in the latter case

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

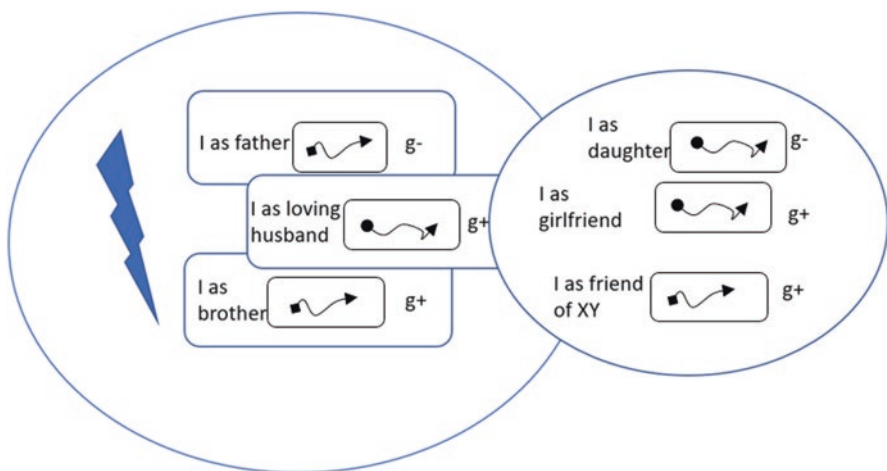


Fig. 5 I-positions and their action fields in interpersonal dialogue

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 peripheral 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 peripheral 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 *stressors* 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–poly-cultural 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>

- Hermesen, 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](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 unites 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.