

PROCESS GENERATES STRUCTURES Structures Alone Don't Generate Process

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ABSTRACT

In this article I refer to written works (see the section on “Philosophy” at www.focusing.org) in a very brief argument. How process produces structure is discussed in four sections:

I. Process *makes* structure, and can change and expand it. A process always has many implicit possibilities that are not structures. Exactly in what way something implicit exists is discussed. Process *implies and makes* the next events.

II. One way human beings make things is by first making stable separate parts. Then we arrange them together. So we can easily view natural things as if they were made of stable parts. But most living things don't do it that way. They constantly regenerate their parts. These are two different ways of making something. With separable parts comes the kind of “space” and “time” that is usually assumed. That kind covers up the implicit process so that most of our experience seems impossible.

III. I say how the implicit is more precise with more relationships than an explicit structure can provide. It interrelates innumerable possibilities that are precise and unfinished because they also imply further. They imply one sequence of next events which can “explicate” the generative precision. What actually occurs explicates the implying. Each explication brings a fresh further implying.

IV. The findings of science seem to deny our own experiencing, and vice versa. Although the two seem so different, we can think with both logical and experiential precision because they have an inherent relationship.

I. PROCESS GENERATES AND REGENERATES ITS STRUCTURES

When one part of the brain is damaged, its function can often be taken up by other parts that don't usually perform that function. We know this change is possible because we find it happening, but science needs to add a new kind of concept that can explain how it is possible.

Not only in special cases, but also in many ordinary ways, *how we function creates* or changes the structures. Ordinary thinking generates brain cells and new connections. Constant stress can bring physical changes. Psychosomatic effects are only puzzling when

one assumes that somatic structures normally exist apart from the “psycho”. But they are not two things, rather a process that generates and regenerates structures.

If patients only think they are taking a drug, 40% improve. With the drug, 60% do. The concept of a “placebo” splits “psycho” utterly away from “somatic”, as if it were nothing organismic. We can recognize and study the body’s own internally arising healing process. We need to study *that* process, since all medical intervention ultimately depends on it.

These seeming puzzles arise because the process cannot be thought about in the current *concepts*. I want to show that we can add another kind of concept.

If we consider only a structure, it seems impossible that its function can persist when the structure is destroyed. Doesn’t the function also disappear? The puzzle can be explained (and researched) if we consider all structure as ongoingly generated. *Structures are always being generated by a much wider implicit process of the organism*. There is never only what is already structured, always also, a process with many more possibilities that are *implicit*.

Let me introduce the “implicit”.

Here is an example from a familiar human process: Consider how you ordinarily speak. When you are ready to say *something*, you say *it* in a few sentences. But if others invite you further, or you think further alone, “*it*” can expand on and on. Then *it* (what you were ready to say) turns out to have had a great many strands and parts. Some of what comes surprises you. Did that all already exist in your *readiness* to speak? Surely not, and yet in some way it was there. The incomplete way it was there I call “*implicit*”.

Let us see in what way all that existed in your readiness to speak. These many strands and developments were not separate structures. There were not hidden structures there, waiting. As structures they are new. They developed as you went on. But they are not *just* new. They are *neither* just new, *nor* were they already structured. This “neither nor” leads to a new concept: The “implicit” consists of a multitude of *unseparated* possibilities which all function to enact the one specific next sentence you actually say.

What do you do to make the words come? You keep sensing what you had ready to say and you open your mouth. The words come out. You did not already have words for what you wanted to say. You had it in a bodily way. The readiness to speak is an *implying*. It implies something that comes next. If you give it permission, it will make actual sentences. Speaking is one way of “*explicating*”. Actual events can *explicate* the implicit.

Yes, a whole ensuing sequence is implied from the start, but the implying is much more than finished structures, and it carries itself further as it enacts one next structured event, and then another and another. What is implicit *explicates* itself in enacting what actually occurs.

You cannot help knowing when you lose track of something that you are ready to say, because then you can no longer speak or think from it. But sometimes there is another difficulty. We try to speak from *that*, but what we say does not succeed. It does not open it and carry it further. The implicit is very precise and stubbornly demanding. You can say and

think a lot for years, knowing all the while that you aren't touching what is implied. If there were only finished structures this would be a puzzle: You would only have what you are thinking. How can you know it is not what is implied, since you don't know what is implied? But we observe that we often have a stubborn discomfort with what we can say. We have an unsatisfied implying directly.

Speaking is only one example. Many others might occur to you. The implicit is totally familiar to everyone. The word "implicit" is widely used today, but with the usual assumptions it seems to be a paradox, "*was there, and yet was not*". The paradox opens if we widen what we mean by "was" and "is" or "exists". *What exists is not only structures*, not just structures or nothing. There "is" always also an implying. But of course, to change our notion of existence is not a small move.

The concepts of "implicit" and "explicating" can clarify our understanding of most events. Everything we do and say explicates an implying that is more than what is there as structures.

Something can be utterly familiar and yet very puzzling. Let the word "implicit" refer to this familiar but puzzling way we have what we want to say. As we say it, *it* expands. If you let the word "implicit" refer directly to that familiar readiness to say something, then you can decide as we go along whether or not to accept the concepts I present. If you let the word mean *that*, then you might also think of something further and better than what I say.

I want to emphasize that we can let words *refer to "that" which we experience*. Even if the word brings a concept, the word can also refer to the familiar way "that" is. These are two different uses of language. We can have the good of both.

The concept of the implicit is not only individual; it applies also to all happenings, including history. *Social events explicate earlier social events. The later events separate and emphasize characteristics which the earlier events implied. Only now do we see some of what the event "was"*. The further events *explicate* the previous.

The actual events bring fresh implyings, but these are *in a certain way continuous* with what has already happened. What "part" is new? We cannot divide a new part from the old because in explications the parts (units, structures) are neither just new nor just old. And each brings a fresh further implying. I call this kind of continuity "*carrying forward*".

Every happening is structured and freshly implies a great many further events that are not structured.

Our difficult situations become more hopeful if we recognize that events are never only what is explicitly formed. If we deal with events as having very many more possibilities, and if we understand that the possibilities can emerge only gradually as actual events bring new implying, then we may find a few steps that now begin something new.

What actually happens is a process of explicating. The innumerable implicit possibilities imply a sequence of next events, and they imply one next event which can change the sequence.

II. TWO DIFFERENT WAYS OF MAKING SOMETHING

Human beings are “*homo faber*”; we make things. One way we do that is to make parts separately first. *We make each part as a separate structure*. A factory makes nothing but *that* part. Then we put the parts together to make the final thing. So we tend to assume that everything naturally consists of separable parts: bricks and bolts and microchips. We assume that the living things (including ourselves) also consist of separable parts: legs, and fingers, skin, and bones. We think of animals in terms of separate “systems”: the digestive and the reproductive. We separate nerves and cells. We find chemical “factories” making certain proteins.

But living things don’t do it that way. They don’t make only skin or proteins separately, *apart from the process of the whole organism*. The “factory” that makes those proteins doesn’t first do it alone. A living thing remakes itself and its “parts” freshly all the time. The factory is constantly being regenerated freshly. So these proteins keep having many implicitly changing characteristics, many more than proteins have separately. They are more precisely implied and occur in more precise ways than is assumed in the separable parts and particles that our current concepts represent.

We make the parts of a machine first. We don’t turn it on until we put the parts together. But a living thing is already “turned on” when it makes its parts, for example in the embryo. And it is always remaking them. This different kind of making is hard for us to understand, but it is actually more “natural” than making and combining separable parts.

Living things do seem to repeat “the same” forms and patterns for millions of years, but each “same” is also new and different. We seem to have “the same” organs and cells, but the doctors always tell us “each body is different”. How these supposedly “same” parts will respond to a particular drug is not quite predictable. The doctor has to deal with the living body and its living “parts”, but according to current assumptions we are made out of inanimate fully structured structures. It is a similar mistake to say that “the body” is what we leave here when we die. No, that will be a dead body; this one is a living body, engaged in implying and explicating, which brings further implying.

Living bodies consist of ongoing body-environment interactions, not first separate structures which then also interact with their environment.

The concepts of structures are irreplaceably useful. Knowing something about what a part produces enables us to intervene to improve or restore it. It is only foolish to denigrate science. (And to write that on a computer?) Any structured pattern that stays reliably the “same” for a while *is precious and invaluable*. But the medically classified illnesses are not separate entities in the body. That kind of concept cannot include how anything implicitly is. An implicitly intricate process generates not just that pattern but also much more.

We are contrasting two kinds of making. Let us now more closely examine this one human way. How do we make things with separate parts? We do it with patterns.¹ We impose a pattern on things that don’t have it from themselves. We make furniture *by moving patterns onto the wood*. *The wood has a much more intricate organization but it doesn’t*

have this furniture pattern. We make scientific patterns of the characteristics of wood too, and of its molecules and particles. We move the pattern from our design across to the things. Our patterns stay the same as we apply and move them. We seem (only seem) to work in a space which doesn't affect the patterns. Therefore the space seems obviously empty except for the objects in it.

The many "same things" made in a factory are distinguished only insofar as this one is here, whereas those others are there and there. Their positions are all that distinguish one from another. This particle here is *the one that was* earlier over there. Positions depend on some observer who relates a "here" to an "over there". The positions don't relate to each other. A perceiver's "there" from "here" must relate them.

The patterns we use are not the thing's own; they are *our* patterns, but made in interaction with the things. We make them by playing with the things on our instruments in the laboratory, trying out all sorts of moves until we find an operation that always (or nearly always) produces *the same result*. The results are truly possibilities *of the things*, but in response to us (see Gendlin 1997b). The things would have had these responses in ancient times, but only if our instruments and patterns had been applied. On our patterns they show more than they otherwise have, but only what fits our current patterns. What we consider *their* patterns are *theirs on ours*.

Although current scientific patterns are of many kinds, they mostly assume structures alone, nothing implicit. But only some of what we experience can exist on the pattern.² According to the current scientific concepts most of how we are all day is impossible. And a great deal that happens in modern physics is equally impossible according to this still ubiquitous old model.

Most current concepts assume that what "is" or "exists" means what fills the "empty" here-there space. This kind of space comes from our making *separable* things. *Separability* IS just this space: *each thing outside every other*. Each part or particle is supposed to stay identical to itself, and outside the others. But space is not empty and merely positional until we make it so by riding over what is there.

Now I need to bring home how this positional scheme of space and time *covers up the actual differences*. There is a *filled space and time* which has to be reduced down to make the positional kind.

A person's (and an animal's) action possibilities cannot be listed and enumerated separately. They are many more. They are also much more intricately organized because *any one action changes how the other possibilities could happen. An action is a "cluster" of changes in the other possibilities, and creates new ones. They form a great "space" that is very full. Any one action carries the whole "cluster" forward.*

The cluster keeps the past events, but also opens and expands them because it implies further. The cluster has a kind of continuity not reducible to a logic of same units, but it is not at all indeterminate, rather more precise than logical deduction. There is a way of making logical sense but with newly created terms, rather than staying within an antecedent set

of terms. This “inductive” kind of logic has puzzled thinkers through the ages because it often happened, but did not yet understand itself. It was assumed that logic requires a set of terms fixed in advance and kept the same throughout.

Logic cannot determine the units it uses. And what words mean cannot be determined within a fixed set of units. The words first say something: then one can examine how they were used.

New terms from implying-occurring-implicating can make “*organismic sense*” because speaking is a bit of further living, i.e., a bit of body-environment interaction. From the organismic sense-making we can generate *new units* with which we can logically explicate what happened. What can follow logically is *inherently related* to what could follow in actual body-environment interaction.

The organismic process in us continues even though it is hidden by the empty system of location “points”. The cluster of action possibilities is not really reduced, only covered over. We seem unable to think from the implicit because we try to make it fit the terms we have. We try to think of it as structured objects in the space of “there-from-here”.

No theory or philosophy (including this one, of course) will make the implicit explicit. But *as explications* we can let words and actions come *from it* to carry it forward. We can explicate many of its characteristics, one precise strand after another.

In defense of location space and structures alone, look at how much we have been able to achieve with these parts and particles! Our vast technology is partly due to this kind of concept. On the other hand, look at how physics has already had to reject that space and its “same” parts. The parts do not stay the same. Current physics uses only operations and mathematics. And what a mathematics! A mathematics tied just to operations. Physics goes beyond the old model by doing without any explanatory concepts at all. The “quantum field” is indeterminate until equations are developed to predict the results of operations. Most other sciences including neurology still use concepts that assume the old model.

A similar emptying happens to time. It becomes reduced to a sequence of mere time points. Each moment seems to be the same as every other, distinguished only by a position on a time line. But the past is not just an occurring at an earlier position. Consider the vast number of factors from the past which are *not now occurring but are shaping* what now occurs because *it would occur differently if they had not happened*. They function now, but they function implicitly, not as occurring structures. The effects of the past may seem imprecise, but we can trace the precision. We can identify many factors and causal chains, but they don’t have their effects separately like a list of “factors”. Their implicit function is precise in producing just this single occurring which we can explicate in ever new and more numerous terms.

The merely positional time covers up how each moment is a different cluster which generates fresh possibilities that can be carried forward. We can observe this in our human process, for example this moment’s shadows on the wall, how the light is playing on the trees, how the muscles in my hips feel now, and how the rest of my day and my life is implied from here.

Let us see what alternative model comes from explicating, and why the implicit has so many more possibilities than the patterns of structures have alone.

III. THE ORDER AND PRECISION OF IMPLYING

Many people affirm “holism”. They say that the whole organism is one. This is true. The implying process is the whole organism’s, but in the current concepts this is considered “indeterminate”, a merged amalgam. In the traditional model “determined” means structured and separated. So the implicit seems indeterminate. But the implying is actually more specifically determined and determining, because it is the resultant of much more than structures can provide. I have derived this kind of “more determined” at length elsewhere but I will tell it very briefly here.

Implicit possibilities *inter-affect* each other. What each IS includes how it affects the others and is already affected by affecting them. Each becomes more precise because it is precisioned by the others. “Their” *interaction is first*, before there is a separable “they”. This greater precision makes them unfinished as structures. They each *imply the one next event and the series of next events*.

Any one possibility that actually occurs changes how the others are possible. For example, if we throw the ball we can no longer run with it or kick it; if we boil the eggs, we can no longer scramble or poach them. These possibilities always remain specific; scrambling and poaching don’t merge. The cluster of implicit possibilities implies one next action. And that action will carry the cluster forward.

Any one way I act is *already* precisioned by other possible actions. I lift the coffee pot in such a way that touching the hot part can’t happen, and so pouring it will be possible, and so I have control of how much I tip it and can pour a little, not too much too quickly. These other behaviors have already helped shape this ongoing action of lifting the coffee pot. Many other possible actions always participate in shaping what I actually do. Any action really carries forward a whole cluster of inter-affecting action possibilities. Many implicit possibilities shape a next happening.

For example, any *one* next chess move must make all of the opponent’s promising possibilities impossible and also open up new possible moves for our side. Chess is of course limited by its rules, but it is a good example of how one move is really the carrying forward of a whole cluster of precise possibilities. These are not merged or indeterminate. One couldn’t play chess without precise possibilities. They remain specific and separate in this more intricate sense of “separate”. The player tests out the move by tracing as many possibilities as time allows, but the new move first comes to mind directly from the implicit intricacy of the cluster of possibilities implied all at once. (See Gendlin, in press.)

The many events that have happened are retained, but in a more intricate way: Now they function *both* as they were *and* in the one further implying. (See “pyramiding” in Chapter VI of Gendlin 1997a.) The implicit intricacy does not consist of structures that are just there, just objects. Implicit intricacy is an active implying, generating and re-generating structures.

Here we have arrived at the main thesis of this article: Process generates structures. The generating is not done by structures alone.

We can change to a new model for what “exists” or “is”. I outline it very simply here with four terms:

1. Implicit intricacy;
2. Implying and enacting the sequence of next events;
3. Precise interaction that is prior to separate things (for example body-environment interaction);
4. Implying implies the sequence of next events, but brings a further implying.

The detail of this model is missing here, of course, but I cannot tell more of it in this article. Please see my *A Process Model* (Gendlin 1997a) for the complete version.

IV. THE INHERENT RELATION OF SCIENCE AND THE IMPLICIT

The concepts of science change every few years. What science tells us today is different from what it said forty years ago. And forty years from now it will deny much of what it says today. We value its recommendations for our health, but we know these too will soon be different.

In the time of Kant and Hegel science was mechanics. They wrote that nature *is* a mechanical system. When I was young everything was said to be chemistry. I was told to think of myself as chemical equations. Today we are supposed to think of ourselves as neurological structures, what the neurons do.

After a while we and nature will seem to be something else again. Obviously we “are” not any one of these. ***So we vividly see the implicit nature of nature, and our own implicit nature.***

We are not only the sequence of explications. We are the generative *implying* and *explicating*. Events are an *explicating*.

But explications don’t just change. The change is a development, but attempts to account for it show no deductive continuity because new areas open and always bring many more new terms (Fodor, 1974). But explications can last for some decades and give rise to many results which are only gradually absorbed. Great changes in the body-environment process can happen.³

How shall we think from here? Rather than structures alone, our concepts can be of processes that generate structures.⁴

We can also employ the implicit in the very process of our thinking. It becomes more systematic if we think both with logic and with the implicit. This kind of thinking requires a new understanding of how they are related to each other.

The usual thinking is in fact already both. Thoughts and words (and actions) can come to us from explicit knowledge and from implicit experiencing.

Any *clarity* is both. The “aha!” produced by a logical presentation before us is *its effect* on our experienced understanding. *Clarity, (we see) is always the fresh implicit effect brought by the explication.* Clarity is both the structures and the felt understanding.

We can think systematically with both if we can employ them in turn. We can pursue where just logic leads. We can also *pause* to refer directly to the implicit intricacy (“all that”) which can come freshly again from any words or concepts and in any situation. Then we can see what *that* implies and where it leads.⁵

These are two very different ways to go further. We can *first* let each go as far as it can, keeping both inviolable, preventing them from stopping or obstructing each other.

Then we can see how each can expand the other.

With logic we pursue the implications from fixed terms. Logic alone can arrive where nothing else can go. Computers can lead us to new conclusions and new territories that we could not reach in any other way. But *from there* (or from anywhere) a fresh implicit comes and opens a way to go further, beyond computers and logic alone. ***There is a reciprocal relation between logical calculation and the implicit.*** Each can go on where the other stops. Each expands what the other has done, if we first let them work in turn.

There is an inherent reason why they can continue each other. Logical units *are* explications. ***Logical units are body-environment interaction being carried forward.*** From that organismic carrying forward new units can be generated. Therefore each is inherently an implicit carrying forward of the other.

If we fall into thinking that we are mechanical, chemical, or neurological structures in the space of there-from-here, then we take ourselves as objects. We exist as an observer’s experience. Nagel (1986) posed the puzzle: “I am my brain,” he said, but this makes me an object, and not even my object or yours, rather an object viewed from nowhere. He called modern science “the view from nowhere”. Nagel’s puzzle brings home that we cannot be just objects.

This still current puzzle arises from the assumption that what “exists” consists just of what fills space. That is why humans and everything else seem to *be* mere objects.

Our solution is a new understanding of how things “*are*”, not only objects, but also their processes which are generating their structures. Nothing is only objects. ***There are no objects alone.*** They are the implicit intricacy that implies a sequence of events in which each next event brings a fresh implying.

Let us not struggle to understand the new model in concepts that still assume the old model. Instead of the impossible task of placing the implicit–explicating process into a universe of structures, let us start in that more intricate process, and understand the structures within the wider implying-explicating process.

REFERENCES

- The Focusing Institute. *Thinking at the edge*. http://www.focusing.org/tae_steps.html
- Fodor, J. (1974). Special sciences and the disunity of science as a working hypothesis. *Synthese*, 28, 77-115.
- Gallagher, S. (2005) *How the body shapes the mind*. Oxford: Oxford University Press.
- Gendlin, E. T. (1997a). *A process model*. New York: The Focusing Institute. A slightly corrected version is available at <http://www.focusing.org/process.html>.
- Gendlin, E.T. (1997b). The responsive order: A new empiricism. *Man and World*, 30 (3), 383-411. Also available at <http://www.focusing.org/gendlin4.html>.
- Gendlin, E.T. (2009). What first and third person processes really are. *Journal of Consciousness Studies*. 16, No. 10–12, 332–62.
- Gendlin, E.T. (in press). Implicit precision. In Z. Radman (Ed.) *Knowing without thinking: Mind, action, cognition and the phenomenon of the background*. Basingstoke: Palgrave Macmillan (forthcoming). Also available at: http://www.focusing.org/gendlin/pdf/gendlin_implicit_precision.pdf
- Nagel, T. (1986). *The view from nowhere*. Oxford: Oxford University Press.
- Stuart, S. A. J. (in press). Enkinaesthesia: the essential sensuous background for co-agency. In Z. Radman (Ed.) *Knowing without thinking: Mind, action, cognition and the phenomenon of the background*. Basingstoke: Palgrave Macmillan (forthcoming).

ENDNOTES:

1. Consciousness (sensation) arises in animal behavior. It does not consist just of the percepts; they are generated as they happen (and generate a more intricate kind of time (Gendlin 1997a, Chapter IVB), not just successive time positions. The human cognitive capacity using movable patterns has to be distinguished from (and derived from) animal behavior. (See chapters VI and VIIA of *Gendlin 1997a*.) Language and symbolizing are not at all arbitrary or conventional, as if not being generated by the organismic body-environment interaction which antecedes the development of perception and cognition.
2. Sometimes the fact that science has not found something is misunderstood as if it were a scientific finding. But it is well known that one can always easily *not-find* even a well known fact if one uses instruments on which it cannot register. (“The null hypothesis cannot be proven.”)
3. For example, water molecules had seemed exhaustively defined. Recently water turns out to have many other characteristics such as variable ways of crystallizing. Many factors can affect water in ways not previously known. This will also open a new branch of medicine, since water is such an important constituent of living things.’

Many new effects are being found in other materials. A “*materials science*” now deals with new *fundamental properties* of many materials, with important results for

their use in engineering. Implicit intricacy does not consist of just a few more variables. It can open large areas which change the known factors and relevances. It is so also for speaking. Beyond the standard meanings someone seems to say, reflective listening reveals an implicit intricacy with very different meanings and relevances.

4. Gallagher (2005) offers the concept of “transmodality” connecting the five sensory modes long before the neurological structures that link them develop. (See my explanation in Gendlin 2009.)

Stuart (in press) defines “enkinaesthesia,” the bodily process of active probing with environmental responses. There is also much current work in mathematics, calculation, quantum computing, and nanoscience which points in this direction and needs a new model.

5. A detailed method of fourteen steps for concept-formation has been developed. See TAE (Thinking at the Edge) at http://www.focusing.org/tae_steps.html.