The World as Process

The world is made up of things: rocks, tables, dogs, people, stars. Nothing is more fundamental in our experience than this perception. It's in our language with words for all these and many more.

We know of process and change, too. But we know of them only through things. For example, suppose I show you an apple. It's round, red, shiny. I take a bite of it. It's changed—no longer round, no longer red and shiny where I bit into it. I take another bite. The apple has changed some more. I take another bite, and another, and the apple has changed a lot. I give the core to my donkey. The apple is all gone.

The apple changed. But is that the apple I started with? If one apple changed, it wasn't what I first showed you, it wasn't what I bit into the second time, it wasn't the core. It must have been something beyond all those, somehow beyond any particular time, something that persists through all "its" changes. Talking of change we find ourselves talking about things beyond any particular time.

Change, we feel, is not real like things are real, like rocks, tables, dogs, people, stars, the sun. The sun? Everything we know about that fiery ball tells us that the sun is a process: nothing endures in it, not shape, not form, not even molecules—only the process. A rock, too, is process, changing, never stable, though we don't notice the changes. The difference isn't that the sun is a process and the rock is a thing; the difference is the scale of time over which we note "changes".

Our focus in our language is on the world as made up of things, on stability in the flow of our experience. Still, we have some sense in our lives of flow, of flux, of change, of process. And we have some hints of that in our language.

Suppose you're in my living room with me, and I look out the window and say,

It's raining.

Yes, that's true. But what's raining? There's no "it": the weather isn't raining. The weather is rainy; the weather doesn't do anything. The word "it" is a dummy, there because in English every verb requires a subject. I could have said just,

Raining.

You would have understood me. It's clear I'm talking about now, which is all the "is" in the original sentence tells us. And it's clear I'm talking about there, outside the window, though in English we don't require any word or phrase to mark that.

On a winter day I might say "Snowing", and you'd understand me. That's complete, clearly true or false, though it doesn't look like a sentence in English. Or I could say, "Sun-ing" or "Breeze-ing", which are odd, but once you've got the hang of my talking this way, you'd understand me.

If we were at my friend's apartment in the city, I might look out the window and say,

Running.

You'd understand me. It sounds odd because I haven't said who or what is running. That seems essential when we talk English because verbs are descriptions of what's happening to or because of a thing. Yet running is running, whether it's one person, a dog chasing a cat, or lots of people in a marathon. I don't describe all when I say "Running", but we never describe all. What I've said is true or false, enough to communicate.

Looking out my window at the patio at home I could say "Barking" and you'd understand me. On another day looking at my dogs I could say, "Sleeping". These are process words, and used this way they begin to become part of a way to describe process without a focus on things.

After a rain, as I look out at the patio I might say, "Mud". Mud isn't a thing. We don't say "There are three muds out there." We say, "There's some mud" because mud is a mass. Water, gold, snow are masses, too. We know they're part of what the world is made up of, different from things. Every part of mud is mud, while there's no part of an apple that is an apple. Processes are like that, too. Every part of raining is raining—there's no smallest part of raining, for a single drop of water is not raining.

Starting to see the world as process-mass, I look out the window and say, "Dog-ing". You'd understand, though it seems incomplete. One dog or many dogs? What's the dog doing? We need a verb and an indication of singular or plural when we talk in English. Yet if I say, "There's a dog", the verb is just "is". The dog is there, it exists there, that's all. "Dog-ing", understood as about there and now, does that as well, though it doesn't say whether there's one or many, whether alive

or dead, whether big or small. Much is left out, but much is left out of our description "There's a dog."

I could turn, and looking around the room say, "Table-ing". You'd understand. An odd way to talk, but true. Or pointing to the next room I could say, "Woman-ing". Odd, too, incomplete, but true. We are beginning to see the world as made up of processes.

Processes? To say that is to slip back into thing-talk. This process, that process, one process, two processes, a fast process, a blue process. No. To see process in the world there are not processes, just process. The world is flux. Words like "raining", "sun-ing", "running", "dog-ing", "mud-ing" describe the flux of all at a time and place. They don't pick out separate parts of the flux any more than "Pacific Ocean" and "Baltic Sea" pick out parts separate and distinct from the water that covers the earth.

To talk of the world as process-mass we can borrow and modify some words from English like "raining", "sun-ing", "running,", "dog-ing", "mud-ing", "woman-ing". We add "-ing" to remind us of our new way of talking, of seeing. When we say what time and place these *base mass-process words* are meant to describe, as in "Raining (now, here)", we have a "sentence" that is true or false. Looking out the window, if I say "Cat-ing (now, there)", that's false. Given any word t that describes a time and any word l that describes a location, "Raining (t, l)" is true or false, "Cat-ing (t, l)" is true or false, "Woman-ing (t, l)" is true or false, "Mud-ing (t, l)" is true or false.

We can describe more fully. Seeing a rabbit running, I can say,

(Rabbit-ing + Running) (now, there)

The flow of all can be described by both those base mass-process words in a joined way, as when we say of someone in English that she is a good student-athlete. And that's equivalent to "(Running + Rabbit-ing) (now, there)".

I could point to my patio and say "Brown-ing" and that would be true, for my old brown dog Birta is there. "Brown-ing" as much as "Dog-ing" describes in the flow of all. There is no distinction between what we call adverbs and adjectives because there are no nouns and no verbs, no words for things and what is done by or to them. There are only base mass-process words meant to describe the flux at times and locations.

We can describe more fully by saying,

Not–Raining (here, now)

Coyote-ing (yesterday, there) *or* Dog-ing (yesterday, there)

(Rabbit-ing + Running) (there, now) *and*
    (Dog-ing + Chasing) (there, now)

All the ways we join sentences in English with the connectives "not", "or", "and", "if . . . then . . ." we can use in talking of the world as process, for those require only that the sentences are true or false, not that they are about things.

In English we get tongue-tied trying to talk of sameness and difference. Is (are?) the apple then and the apple now the same? How can two things be the same? Sameness and difference are very different in the world as process. A visitor to my ranch saw a couple dogs in the corral yesterday. She's standing next to me today and wonders whether those were the same as the dogs that are here in front of us. Is it the same dog-ing? Is the dog-ing then and there the same as the dog-ing here and now? We can formulate that question in mass-process talk by asking whether the following is true:

Dog-ing (yesterday, corral) ≈ Dog-ing (here, now)

The symbol "≈" is not identity of things but similarity, indicating equivalent descriptions, just as we say that my dog Birta today is the same dog as the one I petted yesterday though she's lost some hair, eaten a meal, ... We can assert similarity without talk of time and location, too, as in:

(Canine-ing + Domestic-ing) ≈ Dog-ing

This is not a universal statement that at any place and time "(Canine-ing + Domestic-ing)" describes the same as "Dog-ing". Rather , the concept, the category, the genus if you will of "Canine-ing + Domestic-ing" is the same (similar to) that of "Dog-ing".

In English we talk of some mud, this mud, that mud, parts of mud. We also say that genus dog is part of genus animal. Basic to our talk of masses is the idea of a part of a mass. But to say "part of" seems wrong, for that brings with it from English the idea of substance. We can have a part of a thing or a part of a mass, but it would be odd to talk of a part of running, even though running is treated as a mass word in English. It would be better to speak of subordination. Abbreviating "subordinate to" as "sub", we'd have that the following are true:

    Dog-ing sub Canine-ing
    Shovel-ing sub Working

And the following are false:

    Cat-ing sub Dog-ing
    Barking sub Meowing

We have a simple grammar: base mass-process words; conjunctions of base words; base words of specific times and places; propositional connectives; a subordination relation; and a similarity relation. In my forthcoming book *Reasoning about the World as Process* I develop these ideas and more into a formal language and methods of reasoning about the world as the flow of all that are as clear and correct as what we have for talk of things. What we have seen so far, though, is enough for us to look at how this different way of seeing comes with a different way of being in the world.

Owning

Birta is my dog, I own her. Hence I can do what I like with her, constrained only by laws that require humane treatment. I can sell her, I can kill her, or I can give her a doggy treat every morning. To think of owning Birta, though, is to view her as a thing, and me as a thing, too, for owning is a relation between things. As process I can only interact, intermingle, flow with her, perhaps controlling her flow but as much controlled by her flow.

I own my ranch Dogshine. Hence I can do with it what I like, subject only to laws that constrain the impact on others of what I do. I can sell it, I can divide it into parts, I can plant trees, or I can graze sheep until there is not a single bit of green on the land. It is mine. I own it, which is to say that this piece of land is a thing, and I am a thing, and I have a special relation to it. But as process I can only interact, intermingle, flow with the process of the land, perhaps controlling its flow but as much controlled by its flow. In process-mass grammar we think principally of the impermanence, we think of being with the land, of interacting. Conservation is not a foreign idea to be reconciled with ownership but is natural, for the relation is not owning but at most modifying the flow.

Can we even talk about owning in our process-mass language? To do so we would need some way to import thing-talk. It might seem we could pick out a smallest location at which "Dog-ing", say, is true at a

particular time in order to single out one dog. But at no time is there a smallest location that my dog Birta occupies, for she breathes in and out, she sheds a hair, ... The idea of a thing needed for the concept of owning is alien to the world as portrayed in the grammar of mass-process. Nor can we introduce an individuating-operator and write, say, "i̱ (Dog-ing)" to mean a single, individual dog, for what are the individuals for "i̱ (Mud-ing)"? We cannot import thing talk directly into our language and logic of mass-process, or at least I have not been able to. Absent that, owning is not expressible in the language of the world as process. What is natural for us as we speak this language is to see my flow intermingling with the flow of dog-ing and land-ing here and now and through time past into the future.

Counting
To someone raised on a process-mass language, the idea of the world as made up of things must be a mystical vision. Counting would be an alien notion, for it is only things that are counted. Perhaps one, two, many—but not seventeen sheep and eight children.

Crime and punishment
Higaberto is an evil person, a murderer. We put him in prison for his crime. He is a thing with a label: "evil". So we isolate him from our society. We are punishing, isolating a thing. But seeing the world as process, putting Higaberto in prison we are mixing the flow we describe with "Higaberto-ing" with the process of prison-ing, and we think of how those intertwine, how they may affect one another and all the flow they encounter. The possibility of change in the process of Higaberto comes to the fore, rather than as an afterthought with a notion like "reform" or "degrading".

Death
We say, "What a pity Louisella died", thinking of Louisella as she was before she died with the qualities she had then. We regret that she didn't live on, thinking of her as a thing that had those qualities, not initially thinking how she might have changed. But in the grammar of process, dying is not a wiping out of some thing with some qualities. We can say what a pity the process of Louisella-ing stopped, and saying that we think of the way the process might have changed. Loss seems different, not of a thing but of a process interacting, changing, inter-twining with other processes. But really, from the perspective of the

world as not processes but process, the flux of all, there is no separate process of Louisella-ing. It's just that we can no longer describe any part of the flux with the word "Louisella-ing." There is no ending, no finality except in the way we describe parts of the flux of all.

What exists—and God
"What exists?" isn't even an intelligible question when we see the world as process. We can't even say that "the world"—the flux of all — exists, for there is no contrast of what doesn't exist. There are no parts of the flow of all, only parts as arise by our paying attention in certain ways. "Why is there something rather than nothing?" is not a deep question leading us to a conception of God but only ungrammatical nonsense in our process-mass language.

God at least in the Jewish, Christian, and Muslim conception of a being outside space and time is inconceivable when we see the world as process. God, if such a conception is to arise, could only be all, the flux independent of any particular description, encompassing all of time and space, not distinct and outside time and space.

Still, this talk of the world as process-mass seems artificial, contrived from scraps and manglings of English. It's not a real language, not a language anyone would speak. We created it only to overcome the limitations of what we can say in English. Why take it seriously? Our process-mass language allows us to enter into another way of seeing the world. We have a way to talk and see without assuming that the world is made up of things, a way to talk without nouns and verbs.

But can we see the world as not made up of things? Is it really possible to talk and communicate that way?   In the accompanying essay "Nouns and Verbs" I show that there are many languages, spoken by many people, that are mass-process languages: Chinese, Tongan, Maori, Salishan languages of the Pacific Northwest of the United States, and more. No nouns, no verbs, no partioning of the world but only describing the flux of all: "There, brown-ing + dog-ing."

What seemed a mystical vision, the unity of all, the world as flux, is accessible to us now not as revelation, not as mystical insight, but through learning a different language. It is not mysticism but a habit of grammar.

They're not like you and me. They think that the broad divisions of our language correspond, however imperfectly, with what is "out there" in the world. There are things and masses, substances and what

is done by or to them. We know that the world is not so static, so fixed, so correctly classified. These are our ways of seeing the world, but there are other ways that are just as "real". Our language is a template we hold up to the world. We see through the holes that make the pattern and think this is the world. But we can, with some effort, put that pattern down and pick up another. What we cannot do is see the world without such a pattern—or if we can, we cannot communicate what we see. That is where mysticism begins and grammar ends.

> *Dedicated to the memory of Suely Porto Alves*
> in the flow of all.

DISCUSSION

Process and stability—a comparison and a little history
I am hardly the first to note that our language leads us to find stability in parts of experience that seem far from stable. Friedrich Nietzsche suggested that in "'Reason' in Philosophy". Benjamin Lee Whorf was clearer, and Friedrich Waismann has written suggestive passages. But those discussions fail to provide any method for how to talk and reason about the world as process-mass that approach the clarity we expect for reasoning about the world as made up of things, which is what I hope to have provided in *Reasoning about the World as Process*.

Alfred North Whitehead, Nicholas Rescher, and others whose work Johanna Seibt discusses in "Process Philosophy" in the *Stanford Encyclopedia of Philosophy* take the contrast: process vs. substance. Here I take the contrast: process vs. things. In contrasting process and substance, they rely heavily on the notion of thing, but now a substance-less thing. They talk of processes rather than just process as I do. A big question for them is the status of things. There seem to be two choices. Things could be like Plato's forms, somehow real but abstract, placing form on the world of experience. Or they could be our attempt to impose order on our experience, our attempt to have stability and diversity in our experience. The latter can slip into subjective idealism, as it seems Whitehead sometimes does when he talks of processes as psychological.

Taking the contrast to be process vs. things, the issue of substance falls away. We don't have to ask what things are made of. There is just the flow of all, and we can, if we wish, impose some kind of thing-talk on that. But that's just our way of describing the flux of all at a

particular time and place. There is no slipping into subjective idealism, though one could take that view. The flux of all can be quite real and not just our perception. What is subjective, or intersubjective through our language, is our describing the flow of all.

Time and space

Time and space for us as English speakers are archetypes of mass-process. They do not come in bits and pieces, for every part of time is time, and every part of space is space. Yet in our process-mass language we talk of times and places as if those are things. We can understand such talk as picking out parts of those masses, paying attention to here and not there, then and not now, no more distinct from the mass of all than the Arctic Ocean is distinct from the great salt waters that cover the earth. Still, this seems to embed a thing-conception in our language.

We can, though, dispense with talk of times as things. We can use just "before" and "after" to relate propositions, asserting, for example,

(Dog-ing + Barking) before (Rabbit-ing + Running)

A true proposition establishes a time in relation to other true propositions, and those "times" need have no more reality than our subjective evaluations of propositions about experience being true or false in some sequence, as I show in *Time and Space in Formal Logic*. To eliminate talk of locations in favor of relative places in space looks to be harder, for we have no ordinary connectives that determine space as fully as "before" and "after" for time.

Cause and effect

If a cause is a thing or a power in a thing, and an effect is what happens to some thing, how can we reason about cause and effect in a process-mass language?

The idea that causes are or are in things, that there is some kind of causal power in things, has been abandoned in science, as you can read in my paper "Reasoning about Cause and Effect". Even in ordinary speech we don't need to think of causes as things or in things. Take, for example, the causal claim "Spot's barking caused Dick to wake up." We can describe the purported cause with the sentence "Spot barked" and the purported effect with "Dick woke up." Then to claim that there is cause and effect can be understood as claiming that the inference from "Spot barked" to "Dick woke up" satisfies conditions for a good

causal inference, as I explain in that essay. Describing causes and effects with sentences that are true or false of particular times and locations, we can analyze causal claims in our process-mass language, too.

Note that it is only by assuming that causes are in or are embedded in things that the old question "Why is there something rather than nothing?" can lead one to believe in a first cause, and then in God. Better is to see that query as begging the question: What makes you believe that there could have been nothing?

There is more, much more, about how this conception of the world as process can lead us to evaluate work in linguistics, in ethnology, in philosophy, and how we live. The essay "Nouns and Verbs" in this volume is a beginning for that, but only a beginning.