Heidegger, Gendlin and Deleuze on the Logic of Quantitative Repetition

Abstract:

Philosophers such as Nietzsche, Heidegger, Derrida, Deleuze and Gendlin pronounce that difference must be understood as ontologically prior to identity. They teach that identity is a surface effect of difference, that to understand the basis of logico-mathematical idealities we must uncover their genesis in the fecundity of differentiation. In this paper, I contrast Heidegger's analyses of the present to hand logico-mathematical object, which he discuses over the course of his career in terms of the 'as' structure, temporalization and enframing , with the approaches of Gendlin and Deleuze, supplementing this discussion with Husserl's investigations of mathematical idealities. Deleuze and Gendlin distinguish between the representational power a logical pattern has in itself, apart from its virtual generative source, to exactly repeat itself, and the way this self-same pattern is generated and changed by the larger situational texture within which it is embedded. In so doing, they misconstrue the empty, meaningless temporalization of logical calculation as the explicitly preserving carrying-through of already instituted implicit sense. For Heidegger, by contrast, logical inference is less a supplement to or development of implicit experience than a narrowing of its scope , a deficient mode of handiness. Experiencing something as present to hand extension modifies the relevant usefulness of 'as' structured comportment by stripping away what is meaningful in our relation with beings, and in the process stripping away its intelligibility. Thus, contrary to the assertions of Deleuze and Gendlin, extensive repetition does not carry through intelligible, relevant meaning, it dissolves understanding into the nihilism of empty calculation.

Introduction:

In our era, philosophers such as Nietzsche, Heidegger, Foucault, Derrida, Deleuze and Gendlin pronounce that difference must be understood as ontologically prior to identity. They teach that identity is a surface effect of difference, that to understand the basis of logico-mathematical idealities we must uncover their genesis in the fecundity of differentiation. On the subject of the origin of logic and mathematics, I contend that Heidegger stands out among contemporary philosophers for his radicality. He ties together the notion of presence , logic and the mathematical in a new way.In recognition of the daunting task of dismantling the metaphysics of objective presence, Heidegger (2009) spoke of the necessity, in a confrontation with the tradition, to revolutionarily shake up the notion of logic from the ground up. "We want to shake up logic as such from its outset, from its ground".

Heidegger was far from alone in this mission. He was among a generation inspired by Husserl's and Nietzsche's decenterings of traditional approaches to logic. If we examine where philosophical thinking stands today in terms of an understanding of the basis of such concepts as number , measurement , extension and magnitude, will we find that Heidegger's most

challenging questioning of logic has been absorbed into the larger philosophical community? Or do there remain important features of his confrontation with the tradition that have yet to be widely grasped? Among the questions Heidegger posed concerning the basis of logic , I want to focus on the following: What is the transcendental basis of the thinking of the changing behavior of an object in the world, or in our imagination, in terms of differences of degree? What are we doing when we speak of things persisting in self-identical presence as we calculate temporal instantiations of them?

 In order to gain a better hold of the stakes involved in achieving the revolution in our thinking of logic that Heidegger had in mind, I want to compare Heidegger's thinking with the work of Eugene Gendlin and Giles Deleuze. Gendlin's psychotherapuetic work identifying , articulating and creatively integrating bodily feeling with respect to objective and interpersonal relationships is an outgrowth of an ambitious philosophical effort to critique and rethink assumptions held by a range of current philosophers. Among the assumptions Gendlin questions are current views on relevance and affective motivation , attention , reflection , the genesis of mathematically-based naturalism, and the relation between the body, language and culture. Gendlin shows that within many current accounts each of these aspects of human functioning gets its sense and is necessarily interlinked with all the others on the basis of an overarching model of temporality that splits up the flow of time into separated units of presence. Gendlin rejects this causal model of time in favor of a radically internal time that shares a number of features in common with the temporal model of Heidegger. Drawing from diverse influences spanning hermeneutics, existentialism, pragmatism and phenomenology, Gendlin's approach moves some distance toward the radicality of Heidegger in its situating of the genesis of meaning-making in an always-already self-temporalizing interaffecting whose unfolding precedes and overflows any notion of present to hand state or form.For Gendlin, the bodily process that effectuates change in behavior space possibilities is not a causally conditioning schematics, but the 'occurring into implying' of language and thought into an already inter-affected mesh of implicit understandings which is modified further by what occurs into it.

Gendlin(1997b) explains:

> "In the old model one assumes that there must first be "it" as one unit, separate from how its effects in turn affect it.. In the process we are looking at there is no separate "it," no linear cause-effect sequence with "it" coming before its effects determine what happens. So there is something odd here, about the time sequence. How can "it" be already affected by affecting something, If it did not do the affecting before it is in turn affected?...With the old assumption of fixed units that retain their identity, one assumes a division between it, and its effects on others. (This "it" might be a part, a process, or a difference made.) In the old model it is only later, that the difference made to other units can in turn affect "it." (p.40)

> If one assumes separate events, processes, or systems, one must then add their co-ordinations as one finds them, as if unexpectedly..."Inter-affecting" and "coordination" are words that bring the old assumption of a simple multiplicity, things that exist as themselves and are only then also related. So we need a phrase that does not make sense in that old way. Let us call the pattern we have been formulating "original inter-affecting". This makes sense only if one grasps that "they" inter-affect each other before they are a they."

"This 'interaction' is prior to two separate things that would first meet in order to interact. I call it 'interaction first'."

'Interaction first' functions as what Gendlin(2008) calls implying into occurring, and in this way carrying forward a previous change.

"Implying is not an occurring that will happen. It is not an occurring-not-yet. It does not occupy a different time-position than the occurring. Rather, one implying encompasses all three linear time positions, and does not occupy an additional linear time position of its own. This is a more intricate model of time. It includes a kind of "future" and a kind of "past" that are not linear positions. This time model can be reduced back to the liner model by considering just occurring-occurring-occurring as if it were cut off from implying."

Concepts such as 'interaction first', 'already interaffected', and 'occurring into implying' share features with Heidegger's concernful dealing with entities oriented in relation to a pragmatic totality of relevance. Relevance is not imposed on an experience from the outside via a bodily feeling state, but is presupposed by the always already self-differentiating movement of experience

"A process is a relevanting. This verb says both that a process occurs relevantly, and that the relevance is made by the process. What occurs makes itself relevant. So we cannot use relevance as if it were on another level from which one can pre-determine what will occur." (Gendlin 1997b)

Gendlin's occurring into implying process, like Heidegger's Befindlichkeit , guarantees that the relevance, significance, mattering, salience of experience is never in question. "Irrelevant events are not produced by the body." Gendlin struggled with the challenge of reconciling the working of logical patterns and forms with the generative fecundity of implicit intricacy. Heidegger similarly grappled with the need to explain how the present to handness of propositional logic is made possible within the more fundamental hermeneutic care structure of relevanting and significance. The question for both is, what is it we are doing when we think the persisting self-identity of the elements of a logical pattern, what Heidegger sometimes exemplified by the image of simply staring at something? For Heidegger, does the present-at-handness of the elements of logical relations have a role within the hermeneutic care structure, such that contextual relevance presupposes and functions around these present elements? Is a present logical element an irreducible feature of the hermeneutic care structure of seeing something as something? Gendlin seems to read Heidegger this way, and appears to model his own approach on this understanding of the relation between what he calls the implicit and the explicit, the interactive crossing and the representationalism of formed patterns. Reminiscent of Heidegger's analysis of propositional statements, Gendlin writes concerning structurality "The notion of an imposed order splits everything into two sides: The order is considered as if it were independent. On the other side there is something passive and unordered, upon which order is imposed, something that does not feed back, because it has no order of its own." The essence of a pattern for Gendlin(1991) is the self-identicality of representation.

"An imposed order is the sort of order that can be the same, here or there, so that it does not depend on what it is imposed upon. The very notion of "order" has come to mean the sort that can be

imposed, that is to say it is assumed to function like a pattern. An order that can be imposed is inherently abstract, since it is the same in many places. So it is independent of the places and can omit everything that does not fit it. Therefore it can be put on something that did not have it from itself. Such an order seems to work alone."

"In terms of "crossing" we can define a machine as a set of known patterns separated from the thing in which other factors could cross with them. Now we can notice that science renders everything as a machine!… A machine embodies a set of externally imposed relations. Science transforms crossed internal relations into external relations between separable units." (Gendlin 1997c)

Logical patterns are meaningfully 'thin' he says, when they are taken in themselves, disconnected from a rich array of relevant aspects of a situation. Isn't this comparable to Heidegger saying that simply staring at something constitutes a failure to understand it anymore, that predicative statements flatten, distort and cover over the larger meaningful significance within which these present at hand elements function? At a glance, Gendlin's treatment of logical form, pattern and rule as cutting itself off from its meaning-giving context of relevance appears to jibe with Heidegger's notion of propositional logic as a deficient, derivative modification of primordial ontological interpretation. But in order to do justice to the relation between the thinking of these two writers on this issue , it is necessary to dig more deeply into Heidegger's work on present to handness. Heidegger derives mathematical and propositional logic, and theoretical science, from the mode of thinking he calls the present at hand. In order to reveal the primordial basis of presence, he embarks upon wide-ranging analyses that, over the course of three decades, gathers together his researches into the metaphysics of will and subjectivity, the means-end instrumentality and efficient causality of standing reserve, and the temporality of 'as' structured comportment. Let's look more closely now at the 'as' structure. I read Heidegger as arguing that what Gendlin calls a 'crossing', and the logical concepts, forms and patterns that are produced from such generative processes (and feeds back into them), are not separable phenomena, not two sides of an interface, as Gendlin calls the implicit-explicit divide. When Heidegger says the propositional 'is' structure is a modification of the hermeneutical 'as' structure, he is not inserting a present at hand 'is' identity into the larger 'as' structure and calling them inseparable. Rather, he is saying the 'is' is already a crossing. For something to be present to itself, to repeat itself identically, to persist as itself, as logical forms are traditionally assumed to do when we compare their elements, is to transform and displace itself, to continue to be itself differently , even as it is presumed to persist unchanged across comparisons. In a comment anticipating Derrida's notion of iterability, Heidegger(1999) states:

"Only what is unique is retrievable and repeatable. Only it carries within itself the ground of the necessity of going back to it and taking over its inceptuality. Repetition here does not mean the stupid superficiality and impossibility of what merely comes to pass as the same for a second and a third time. For beginning can never be comprehended as the same, because it reaches ahead and thus each time reaches beyond what is begun through it and determines accordingly its own retrieval."

The point isn't simply that there are no straight lines or perfect circles in nature, but that there is no MEANINGFUL self-identity in thought. The symbolic (signifier-signified) structure that Gendlin ascribes to logical patterns is deconstructed in Heidegger's analysis of propositional signification. When Heidegger says logical forms conceal and flatten, he means that when we

think in terms of the present to hand , we don't notice these subtle transformations internal to the notion of a present identity. Heidegger(2010b) explains:

> "In the first and authentic instance, this "as" is not the "as" of predication qua predication but is prior to it in such a way that it makes possible the very structure of predication at all. Predication has the as-structure, but in a derived way, and it has it only because the as-structure is predication within a [wider] experience. But why is it that this as-structure is already present in a direct act of dealing with something? The most immediate state of affairs is, in fact, that we simply see and take things as they are: board, bench, house, policeman. Yes, of course. However, this taking is always a taking within the context of dealing-with something, and therefore is always a taking-as, but in such a way that the as-character does not become explicit in the act.
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> The non-explicitness of this "as" is precisely what constitutes the act's so-called directness. Yes, the thing that is understood can be apprehended directly as it is in itself. But this directness regarding the thing apprehended does not inhibit the act from having a developed structure. Moreover, what is structural and necessary in the act of [direct] understanding need not be found, or co-apprehended, or expressly named in the thing understood. I repeat: The [primary] as-structure does not belong to something thematically understood. It certainly can be understood, but not directly in the process of focally understanding a table, a chair, or the like.
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> Acts of directly taking something, having something, dealing with it "as something," are so original that trying to understand anything without employing the "as" requires (if it's possible at all) a peculiar inversion of the natural order. Understanding something without the "as"—in a pure sensation, for example—can be carried out only "reductively," by "pulling back" from an as-structured experience. And we must say: far from being primordial, we have to designate it as an artificially worked-up act. Most important, such an experience is per se possible only as the privation of an as-structured experience. It occurs only within an as-structured experience and by prescinding from the "as"— which is the same as admitting that as-structured experience is primary, since it is what one must first of all prescind from." .

Analyzing this 'as' structure more closely in terms of a binding and separating which takes apart what it puts together, Heidegger(1995) says:

> "...projection is an occurrence which, as raising us away and casting us ahead, takes apart as it were; -in that apartness of a raising away, yet as we saw, precisely in such a way that in this process there occurs an intrinsic turning toward on the part of whatever has been projected, such that that which has been projected is that which binds and binds together. Projection is that originally simple occurrence which-in terms of formal logic-intrinsically unites contradictory things: binding together and separating. Yet-as the forming of the distinction between possible and actual in its making-possible, and as irruption into the distinction between being and beings, or more precisely as the irrupting of this 'between'-this projection is also that relating in which the 'as' springs forth."

Notice that Heidegger says here projection 'takes apart'. This explains why the 'as' structure takes apart what it puts together. The taking apart is the raising us away and casting us ahead to what comes back to us from the future as the actual. What the 'as' 'puts together' is what Heidegger says it "binds and binds together". He says this 'binding together' that projection accomplishes is in fact its "intrinsic turning toward". It "brings us back into what... has been made possible". It's

important to recognize that the tripartite moments that Heidegger says forms the structure of projection is non other than the three ecstacies of temporality. So the taking apart is the future that has pulled us away, and the binding together is the present that comes back toward us via the future on its was to having been. And that's why he says that this taking apart and bind together is simultaneous, just as the tripartite moments of projection are simultaneous, and why projection is a unitary act, an occurrence.

> "For the 'as' expresses the fact that beings in general have become manifest in their being, that that distinction has occurred. The 'as' designates the structural moment of that originarily irruptive 'between'. We simply never first have 'something' and then 'something more' and then the possibility of taking something as something, but the complete reverse: something first gives itself to us only when we are already moving within projection, within the 'as'. In the occurrence of projection world is formed, i.e., in projecting something erupts and irrupts toward possibilities, thereby irrupting into what is actual as such, so as to experience itself as having irrupted as an actual being in the midst of what can now be manifest as beings. It is a being of a properly primordial kind, which has irrupted to that way of being which we call Da-sein, and to that being which we say exists, i.e., ex-sists, is an exiting from itself in the essence of its being, yet without abandoning itself." (Ibid)

Gendlin seems to fall within the traditional thinking in this regard, missing the internally transformative nature of logical concepts and forms. As a result , he distinguishes between the representational power a logical pattern has in itself, apart from us, to exactly repeat itself, and how this self-same pattern is generated and changed by the larger situational texture within which it is embedded. The unseparated multiplicity is something we 'dip into' to create the logical patterns, and then to change their sense. But the logical pattern that is produced by this dipping is presumed as a temporary identity. There is representational logic on the one hand and the more-than-logical on the other.

> "Patterns …are never alone; they always bring and work within a crossed situational texture. That is why the words that name those things can also work in new and more intricate ways, as we saw. We need not lose the pattern's power for inferring next steps logically; but we need not remain only within the pattern."

> "We need to go back and forth between logic and bodily-felt understanding. They build upon each other. It would be wrong to make an ideology of lauding one and pretending to do without the other."...patterns work-in another, more intricate order which talks back..."(Gendlin 2012)

> "To study the role played by implicit understanding in the coming of new concepts will not undermine the concepts we already have. Those concepts work explicitly, with logical implications. Logic is their own power for precise consequences. To use their power we must let them work as if they were alone, without us. Logical inference requires that we don't let anything upset the concepts. For example, while calculating our bank account we don't double one deposit because it came from a special source. All our technology depends on logical inference. Seven billion of us couldn't all live on the planet without it. To undermine logic and explicit concepts is not sensible. Of course we know that we operate the concepts. How they work 'alone' is something we let them do. Whatever else concepts are, they are tools. For example, a screwdriver must be allowed to keep its own narrow head, and to engage the screw with it. We are holding it, of course, but the screwdriver's own pattern turns the screw. Obviously, more complex machines produce

their own results. Concepts similarly have their own logical inferences, quite apart from what is implicitly involved in the coming and having of concepts. We keep the system of existing concepts inviolate and separate. Then we can also have a second system in which we study how something implicit works in the coming of new concepts. We will be concerned throughout with the necessary separation, contrast, and relationship between the system of explicitly formed concepts and our second system about how something functions implicitly. Far from being in conflict, this article will show that if the two systems stay separate, they expand each other reciprocally." (Gendlin 2009).

…Once we have logically linked terms, logic generates powerful inferences far beyond what can be found directly from experiencing…. logical inference is distinguishable from any other process. Postmodernism merges the two orders and loses them both"(Gendlin 1997)

Would Heidegger agree that concepts are tools that consist in their 'own' patterns and logical inferences, 'quite apart from what is implicitly involved in the coming and having of concepts'(Gendlin 2009)? Heidegger believes that 'merging' the orders of logic and non-logic is the only way to understand these modalities primordially. For him logical inference is less a supplement to direct experience than a narrowing of its scope , a deficient mode of handiness. What is more than logic is hidden within and concealed by logic rather than external to it and surrounding it. It is not as though for Gendlin anything can be encountered as a valuatively neutral, objectively present entity. The encounter with things begins as a creative crossing that produces the object's sense as already in a relation of significance and relevance. But this created sense functions as a temporary identity that can potentially be repeated indefinitely as itself in the form of a logical pattern. Of course, Heidegger doesn't deny that we can simply stare at a thing repeatedly, but when we isolate it as enduringly present at hand we are merely calculating. That is to say, the way that experiencing something as present to hand modifies the relevant usefulness of 'as' structured comportment is by stripping away what is meaningful our relation with beings, and in the process stripping away their intelligibility. This is why to merely stare at something present at hand is to no longer understand it. Heidegger(1982) depicts the nature of the priority of handiness over the present at hand as one of intelligibility.

"Equipment [useful thing] is "in order to." This proposition has an ontological and not merely an ontical meaning; a being is not what and how it is, for example, a hammer, and then in addition something "with which to hammer." Rather, what and how it is as this entity, its whatness and howness, is constituted by this in-order-to as such, by its functionality. A being of the nature of equipment is thus encountered as the being that it is in itself if and when we understand beforehand the following: functionality, functionality relations, functionality totality. In dealing with equipment we can use it as equipment only if we have already beforehand projected this entity upon functionality relation."

"The kind of being of these beings is "handiness" (Zuhandenheit). But it must not be understood as a mere characteristic of interpretation, as if such "aspects" were discursively forced upon "beings" which we initially encounter, as if an initially objectively present world-stuff were "subjectively colored" in this way. Such an interpretation overlooks the fact that in that case beings would have to be understood beforehand and discovered as purely objectively present, and would thus have priority and take the lead in the order of discovering and appropriating association with the "world." But this already goes against the ontological meaning of the cognition which we showed to be a founded mode of being-in-the-world. To expose what is

merely objectively present, cognition must first penetrate beyond things at hand being taken care of. Handiness is the ontological categorial definition of beings as they are "in themselves"… The less we just stare at the thing called hammer, the more actively we use it, the more original our relation to it becomes and the more undisguisedly it is encountered as what it is, as a useful thing" "(Heidegger 2010)

Gendlin, by contrast, misconstrues the empty, meaningless temporalization of logical calculation as the explicity preserving carrying-through of already instituted implicit conceptual sense.

Temporality and the 'As' Structure

Gendlin, like Heidegger, appreciates the fundamental importance of the concept of temporality for the understanding of how senses of meaning are generated and continually transformed. I have written elsewhere about the commonalities between Gendlin and Heidegger concerning the inseparability of the functions of past, present and future within the tripartite structure of temporality. Gendlin (1997b) writes:

> "The future that is present now is not a time-position, not what will be past later. The future that is here now is the implying that is here now. The past is not an earlier position but the now implicitly functioning past.""......the past functions to "interpret" the present,...the past is changed by so functioning. This needs to be put even more strongly: The past functions not as itself, but as already changed by what it functions in".

Notice the similarity between the above and Heidegger's(2010) depiction of the linkage between past, present and future:

> "Temporalizing does not mean a "succession" of the ecstasies. The future is not later than the having-been, and the having-been is not earlier than the present. "Dasein "occurs out of its future"."Da-sein, as existing, always already comes toward itself, that is, is futural in its being in general." Having-been arises from the future in such a way that the future that has-been (or better, is in the process of having-been) releases the present from itself. We call the unified phenomenon of the future that makes present in the process of having been temporality."

At a glance, Gendlin's model of temporality approximates Heidegger's, but notice how Heidegger's 'as'-structure produces time as a simultaneous binding and separating, a returning back from a being-out-ahead.

> "Because my being is such that I am out ahead of myself, I must, in order to understand something I encounter, come back from this being-out-ahead to the thing I encounter. Here we can already see an immanent structure of direct understanding qua as-structured comportment [my experience of something 'as' something], and on closer analysis it turns out to be time. And this being-ahead-of-myself as a returning is a peculiar kind of movement that time itself constantly makes, if I may put it this way."(Heidegger 2010b)

The implicative inseparability of the temporal ecstasies apparently functions for Gendlin as the interaction between the implicit intricacy (the unseparated multiplicity) and explicit occurrences. It does not pertain to the temporal repetition within the patterns produced by propositional logic.

These repetitions , as identical iterations, imply no change of meaning in themselves. Furthermore, there could only be such pure repetition within logical structures if it were being assumed that all occurrences, whether logical or non-logical, persist as temporary self-identities. For Heidegger, however, the structure of temporal ecstasies of future and past dont revolve around a self-persisting present.

"It is therefore essential, in first defining the unity of temporality, to eliminate the notion of anything thing-like, present on hand, which is between, as it were, having-been-ness and the future."(Heidegger 1984)

Gendlin says logical patterns "lead to the wonderful technology which enables billions more people to live, and many of them better than ever before." What is the source of these advantages? What makes technology wonderful springs from logic's assumed ability to harness the qualitative power inhering and persisting within an identity? The condition of possibility of logical reproduction is Gendlin's presupposition that to be an identity (what he calls an occurrence, or the explicit) is to already reproduce itself in self-affection. For Gendlin the creative becoming that the structure of temporality imparts to experience begins only after and around the temporary self-persistence of identities, whether these identities are formed into patterns of logic or occur as other kinds of meanings. In this way, Heidegger's 'as' structure is degraded into a 'taking as' which begins from temporary identities which only later cross with each other to produce new temporary identities of either a logical or non-logical type.

"This choice of various ways of taking as is another function performed by the subjective side, to let the same sentence function either taken as a same pattern, or as it might work in further word-use."(Gendlin 1995)

For Heidegger, by contrast, temporality doesn't function as the relation between an implicit multiplicity and an explicit occurrence. Rather, it is occurrence itself as binding and separating. This binding and separating is what gives objects their equipmental character as handy, useful things.

Technology and Standing Reserve

It is not enough to say with Gendlin that a logical pattern, a piece of equipment, an instrument such as a screwdriver, gets its sense and relevance from the implicit intricacy that generates it and which then holds itself steady while the instrument functions autonomously. Heidegger writes about this way of thinking about tools in terms of his notion of standing reserve. What characterizes standing reserve is the treatment of the producing process as efficient cause, and of the tool, instrument, equipment as a means to a pre-given end. Heidegger's later writing identifies a change in the interpretation of presence that came with the advent of cybernetics, information technology and atomic physics, and from a focus on the steady presence of objects to the persisting presence of ordering schemes, what Gendlin describes in terms of repeatable logical patterns. In a 1965 address, On the Question Concerning the Determination of the Matter for Thinking, Heidegger says that with cybernetics, the final historical transformation of the interpretation of the presence of what is present has been fulfilled. lt has "lost the meaning of

objectivity and objectiveness…the standing-reserves do not possess constancy in the sense of a steady, unchanged presence. The kind of presencing of the standing-reserves is orderability… The transformation of the presence of what-is-present from objectiveness to orderability is, however, also the precondition for the fact that something like the cybernetic way of representation can emerge and lay claim to the role of the universal science at all."

In Science and Reflection, a 1954 lecture, Heidegger writes:

> "The subject-object relation thus reaches, for the first time, its pure "relational," ie., ordering, character in which both the subject and the object are sucked up as standing-reserves. That does not mean that the subject- object relation vanishes, but rather the opposite: it now attains to its most extreme dominance, which is predetermined from out of Enframing. It becomes a standing-reserve to be commanded and set in order."

> "What is the instrumental itself? Within what do such things as means and end belong? A means is that whereby something is effected and thus attained. Whatever has an effect as its consequence is called a cause. But not only that by means of which something else is effected is a cause. The end in keeping with which the kind of means to be used is determined is also considered a cause. Wherever ends are pursued and means are employed, wherever instrumentality reigns, there reigns causality… For a long time we have been accustomed to representing cause as that which brings something about. In this connection, to bring about means to obtain results, effects. The causa efficiens, but one among the four causes, sets the standard for all causality." (Heidegger 1977)

As a means to a pre-given end, a tool such as a screwdriver persists as a present orderable configuration , as standing by ready to be used. In modern technology,

> "Everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a further ordering. Whatever is ordered about in this way has its own standing. We call it the standing-reserve."

> "… an airliner that stands on the runway is surely an object. Certainly. We can represent the machine so. But then it conceals itself as to what and how it is. Revealed, it stands on the taxi strip only as standing-reserve, inasmuch as it is ordered to ensure the possibility of transportation. For this it must be in its whole structure and in every one of its constituent parts, on call for duty, i.e., ready for takeoff. Here it would be appropriate to discuss Hegel's definition of the machine as an autonomous tool. When applied to the tools of the craftsman, his characterization is correct. Characterized in this way, however, the machine is not thought at all from out of the essence of technology within which it belongs. Seen in terms of the standing-reserve, the machine is completely unautonomous, for it has its standing only from the ordering of the orderable."(Ibid)

In sum, standing reserve implies efficient causality , making , instrumentality, a remaining present at hand. It would be a mistake to think that Heidegger's questioning of modern technology is aimed at advocating a less mechanistically oriented method of building things in order to protect our planet from degradation. Advocates of shifts in thinking about technology for the purpose of saving the planet's species and climate stability could achieve all of their goals and still remain within a machinational thinking. Trying to envision what a piece of technology

that wasn't the result of enframing would look like is a difficult task, and I think it diverts us away from Heidegger's main concern, which is not about what our machines do in themselves but how we are disclosing being when we construct them, and, most crucially, how this way of thinking degrades us, aside from how our machines affect the planet. Heidegger derives the technological thinking of enframing from the metaphysics of the world as picture, which he traces back to Descartes. At the heart of this metaphysics is the modern notion of the subject-object relation, in which the subject is seen as a self-reflective consciousness that posits and represents the object before itself.

> "Thinking becomes I-think; the I-think becomes: I unite originarily, I think unity (in advance). By virtue of the guiding-thread that already dominates, knowing as self-knowing is the utmost identity, i.e., what is an actual being; and as such a being it is at the same time in the possibility for conditioning every other objectness in its manner as knowing…"(Heidegger 1999).

Heidegger considers this self-presencing certainty of the subject as the basis of modern mathematical thinking, That is, as the certainty of calculation. Only because being is understood via the mathematical present-at-handness of subject and object can the technological be disclosed as enframing and standing reserve. It is not the case that for Heidegger mathematical knowledge is a neutral phenomenon and it is what we do with it that counts. Numeric calculation is not neutral with respect to metaphysics but predetermines a particular disclosure of being as the objectness of what is represented by a subject. Ecologically-minded reforms, regardless of their 'success', remain forms of technological machination as long as they disclose beings in terms of values and lived experience.

Heidegger's(1967) analysis goes to the grounding of method itself. "Method is not one piece of equipment of science among others but the primary component out of which is first determined what can become object and how it becomes an object…" . What is presupposed about method when we say that a tool like a screwdriver is executing a ground-plan by the way that its pre-designed shape is put into use in turning screws? The screwdriver's function is presumed as the effect of an efficient instrumental cause. The effect can be repeated identically for an indefinite period as it carries through time the substantive meaning generated by the cause. But as Heidegger has argued in his account of the 'as' structure of handiness and its rootedness in temporality, mechanical repetition does not carry through intelligible, relevant meaning, it dissolves understanding into the nihilism of empty calculation. This is the case not only for the created object but also for the subject. To be a subject is to act as cause in producing instrumental effects.

Nietzschean Subjectivity and Presence

Heidegger's analyses of the metaphysics of subjectivity in Nietzsche's principles of Will to Power and Eternal Return show the dependence of persistently present objects and standing reserve on a persistently present subject. The tool which is set in place as standing reserve is posited via a representing by a subject. The subject, in order to represent, to place in front of itself values and instruments, must first represent itself to itself, to be present to itself.

> "…inasmuch as within modern metaphysics the Being of whatever is has determined itself as will and therewith as self-willing, and, moreover, self-willing is already inherently self- knowing-itself,

therefore that which is, the hypokeimenon, the subiectum, comes to presence in the mode of self-knowing-itself. That which is (subiectum) presents itself [präsentiert sich], and indeed presents itself to itself, in the mode of the ego cogito. This self-presenting, this re-presentation [Re-präsentation] (set- ting-before [Vor-stellung]), is the Being of that which is in being qua subiectum. Self-knowing-itself is transformed into subject purely and simply. In self-knowing-itself, all knowing and what is knowable for it gathers itself together. It is a gathering together of knowing, as a mountain range is a gathering together of mountains. The subjectivity of the subject is, as such a gathering together, co-agitatio (cogitatio), conscientia, a gathering of knowing [Ge-wissen], consciousness (conscience)." But the co-agitatio is already, in itself, willing. In the subject- ness of the subject, will comes to appearance as the essence of subjectness. Modern metaphysics, as the metaphysics of subjectness, thinks the Being of that which is in the sense of will."(Heidegger 1977)

This dependent relation between persistently present objects and an objectively present subject is applicable to the work of philosophers such as Foucault, Deleuze and Gendlin, who claim to place difference prior to identity but give difference a power as efficient cause belonging to a network of reciprocal efficient causes. In his essay The Word of Nietzsche, Heidegger locates the metaphysics of presence as standing reserve in Nietzsche's philosophy:

"The essence of value lies in its being a point-of-view. Value means that upon which the eye is fixed. Value means that which is in view for a seeing that aims at something or that, as we say, reckons upon something and therewith must reckon with something else. Value stands in intimate relation to a so-much, to quantity and number. Hence values are related to a "numerical and mensural scale" (Will to Power, Aph. 710, 1888)

"Through the characterization of value as a point-of-view there results the one consideration that is for Nietzsche's concept of value essential : as a point-of-view, value is posited at any given time by a seeing and for a seeing. This seeing is of such a kind that it sees inasmuch as it has seen, and that it has seen inasmuch as it has set before itself and thus posited what is sighted, as a particular something. It is only through this positing which is a representing that the point that is necessary for directing the gaze toward something, and that in this way guides the path of sight, becomes the aim in view-i.e., becomes that which matters in all seeing and in all action guided by sight…All being whatever is a putting forward or setting forth...

The preservation of the level of power belonging to the will reached at any given time consists in the will's surrounding itself with an encircling sphere of that which it can reliably grasp at, each time, as something behind itself, in order on the basis of it to contend for its own security. That encircling sphere bounds off [encloses] the constant reserve of what presences that is immediately at the disposal of the will.
"This that is steadily constant, however, is transformed into the fixedly constant, i.e., becomes that which stands steadily at something's disposal, only in being brought to a stand through a setting in place. That setting in place has the character of a producing that sets before. That which is steadily constant in this way is that which remains. True to the essence of Being (Being = enduring presence) holding sway in the history of metaphysics, Nietzsche calls this that is steadily constant "that which is in being." Often he calls that which is steadily constant-again remaining true to the manner of speaking of metaphysical thinking-"Being"." (Heidegger 1977)

The screwdriver in Gendlin 's example of a logical pattern function as standing reserve, brought

to a stand as a steadily remaining presence through representing. It is ordered to ensure the possibility of turning screws. And for this , it must be in its whole structure and in every one of its constituent parts, on call for duty, ready for screwing or unscrewing. Furthermore, the implicit intricacy which generates the meaning of what it sets in front of itself, is present to itself and remains so as the steadily remaining sense that it posits (i.e. the temporally enduring pattern of the screwdriver). As Gendlin says, "This choice of various ways of taking as is another function performed by the subjective side, to let the same sentence function either taken as a same pattern, or as it might work in further word-use." Gendlin here thinks presencing in terms of what Heidegger calls enframing , "which assembles and orders. It puts into a framework or configuration everything that it summons forth, through an ordering for use that it is forever restructuring anew."

Animality vs the 'As' Structure

At this point we must bring into view an aspect of Heidegger's work that would appear to complicate the distinction I have been making between the 'as' structure and Gendlin's implicit-explicit. Thus far I have been interpreting Heidegger as arguing that in positing something like a screwdriver as standing reserve, as remaining present to be used, Gendlin is expressing a mode of comportment concealing within itself a more primordial structure of meaning. But in his comparison of animality with Dasein , Heidegger articulates the relation between the animal and its world in a way that bears a superficial resemblance to his notion of enframing, the setting of objects in place within the ordering scheme of an encircling sphere. If we were to hold to a reading of the basis of animality as the subjective enframing of objectively present instruments, it would put into question the ontological priority of handiness over the objectively present. However, Heidegger's complex interpretation of animality prevents us from reaching this simplistic conclusion. For instance, he says animals don't have 'as' structured comportment, and as such do not relate to world as Dasein does. Furthermore, the relation of organism to environment is neither that of objective presence, nor a comportment of handiness and equipmentality. Although Heidegger's analysis of rocks and animals makes little mention of time, given that temporality is linked to the 'as' structure, animals cannot have time in the way that Dasein does.

"…organ and equipment relate precisely to time in fundamentally different ways. And it is this which first grounds an essential distinction in their respective manners of being, if we accept that the temporal aspect is metaphysically central for each manner of being ." (Heidegger 1995)

But if Dasein is positing a being without Dasein's form of time, then Dasein is thinking this non-as-structured time. This means that as-structured time must contain within itself what is not yet or other than it. In the case of the animal, there is instinctively driven behavior within an environment, which Heidegger articulates in terms of captivation by an encircling ring, the "fundamental capability for self-encirclement, and thus for a quite specific openness for a circumscribed range of possible disinhibition." Notice that what is missing here is time as continual regrounding. Animal behavior doesn't reflectively redefine the ground of what it relates to, but instead responds selectively to the environment on the basis of pre-established capabilities of action.

"… individual animals and species of animal are restricted to a quite specific manifold of possible stimuli, i.e., that their ring of possible disinhibition is distributed in quite specific directions with regard to receptivity or non-receptivity."(Ibid)

What are we doing when we think animal behavior in terms of a structurally guided self-repeating thematic such as an encircling ring? How does the restricted 'bringing forth' of an animal's development differ from Dasein's bringing forth of useful things, and why is the animal's pre-circumscribed set of capabilities not comparable to the enframing positing of a present-to-itself subject? To begin with, Heidegger does not mean for us to derive this thinking of enduring capabilities from a more fundamental thinking of the 'as' structure, as if to deconstruct what appears as bare repetition (or assimilation dominating accommodation). On the contrary, Heidegger's 'as' structured temporality must ground its displacing transformations on whatever it is in Dasein's thinking of animality that makes intelligible their 'specific manifold' of capabilities . I do not mean to say that when we do something like just stare fixedly at a present at hand thing we are doing something comparable to what we are doing when we think the enduring nature of an animal's sphere of capabilities. Heidegger doesn't construe the animal's behavior as simply 'staring at' its environment though the filter of its encircling ring. Furthermore , we can't simply equate an animal's encircling ring of instinctual drives with what Heidegger calls the encircling sphere posited by Nietzsche's Will to Power, which sets in place a standing reserve of enduringly present instrumental capacities. So how does Dasein's thinking of the self-persistence of the capabilities produced by an animal's encircling ring differ from the persistence of a present to hand object such that Heidegger finds it necessary to deconstruct the latter but not the former mode of understanding as derivative and deficient? It doesn't appear that the determinate ecological behavior of animals within their encircling ring is comparable to the pragmatic functioning of the fixed shape of a screwdriver for Gendlin. In the former case, there is a self-consistency but not self-identity to the repetition of behavior:

> "this captivation should not be interpreted simply as a kind of rigid fixation on the part of the animal as if it were somehow spellbound. Rather this captivation makes possible and prescribes an appropriate leeway for its behaviour, i.e., a purely instinctual redirecting of the animal's driven activity in accordance with certain instincts in each case… the animal does announce itself as something that relates to other things, and does so in such a way that it is somehow affected by these other things."(Heidegger 1995)

For Gendlin , a quantitative self-identity maintains itself through the repetition of the pattern as it is being used as a logical tool. Put differently, the screwdriver's pattern, as standing reserve ordered within a subject's encircling sphere, steadily remains as a continually present ordering for the use of the subject. The animal's encircling ring, however, does not put the animal in relation to anything that has the character of a steadily remaining object or instrument. Nor does the animal's behavior in its environment take the form of reflexive mechanism or subjective self-presence. The animal is not present to itself like Nietzsche's value-positing subject. Rather, the animal's capacities to behave are inhibited or disinhibited by its environment as a function of what its encircling ring makes it open for. What 'steadily remains', then, for the animal is the encircling ring's capabilities. I suggest a way to think about the distinction between an objectively present object or subject, and the self-remaining of the animal capability is that objective presence presupposes the repetition of self-identity. The thematic continuity of life's

encircling ring is not a repetition of self-identity but instead a persisting self-similarity without a subject.

Deleuze on Quality and Extension:

I want to turn now to the work of Gilles Deleuze. Deleuze grapples with the issue of the relation between an implicit creative dimension of sense and an explicitly logical, extensive field of actuality by proposing to think the two aspects together in a transcendental-empirical synthesis. The transcendental dimension is represented by an anonymous, pre personal field of reciprocally interacting differences from which emerge singularities and intensities. These structures are actualized on the empirical dimension as wholes and parts, qualities and extensities. Deleuzian intensities are external to actualized extensity and quality as their generative cause and impetus of transformation. Intensities affirm the paradoxical, the heterogeneous, the singular, the incompossible, the Eternal Return of the different, the indeterminate, the non-sensical, the roll of the dice within sense, the object=x as difference in general, the virtual event of sense as intensity, the verb underlying the sleight of hand of the axiomatic , converging, referential functions of actualizing predication. Deleuze(1987) aligns his intensive-extensive duality with Bergson's distinction between duration and the empirical multiplicity of magnitude.

> "Bergson presents duration as a type of multiplicity opposed to metric multiplicity or the multiplicity of magnitude. Duration is in no way indivisible, but is that which cannot be divided without changing in nature at each division.'On the other hand, in a multiplicity such as homogeneous extension, the division can be carried as far as one likes without changing anything in the constant object; or the magnitudes can vary with no other result than an increase or a decrease in the amount of space they striate. Bergson thus brought to light "two very different kinds of multiplicity," one qualitative and fusional, continuous, the other numerical and homogeneous, discrete. It will be noted that matter goes back and forth between the two; sometimes it is already enveloped in qualitative multiplicity, sometimes already developed in a metric "schema" that draws it outside of itself."

The above quote sounds like Gendlin's distinction between the unseparated implicit multiplicity and explicit logical patterns. The latter are generated within the former but are heterogeneous to it and outside of it. Deleuze's implicit-explicit relation seems to work like Gendlin's. Logic and extension by degree are developments and explications (secondary degradations) of the implicit (Virtual). The illusion is confusing the implicit and the explicit , the intrinsic and the extrinsic. For Deleuze, like Gendlin, the implicit intensities (Eternal Return) generate the logical , conceptual, theoretical, lawful principles for empirical domains, and then are held steady in the background, beyond the reach of the conceptual and logical patterns. which cancel them by freezing and isolating them.

> "The transcendental principle does not govern any domain but gives the domain to be governed to a given empirical principle; it accounts for the subjection of a domain to a principle. The domain is created by difference of intensity, and given by this difference to an empirical principle according to which and in which the difference itself is cancelled. It is the transcendental principle which maintains itself in itself, beyond the reach of the empirical principle. Moreover, while the laws of nature govern the surface of the world, the eternal return ceaselessly rumbles in this other

dimension of the transcendental or the volcanic spatium." (Deleuze 1994)

Deleuze's distinction between the first and second passive synthesis of time reflects his separation of an implicit unseparated multiplicity from an explicit actual identity. Deleuze appears to misread Heidegger's model of temporality as consonant with his own, as an interface between implicit virtual time and explicit actual time, the latter being surface effects of the former, which "hides itself by giving rise to that which covers it".

Deleuze(1994) says:

> "What are these systems constituted by the eternal return? Consider the two propositions: only that which is alike differs; and only differences are alike. The first formula posits resemblance as the condition of difference. It therefore undoubtedly demands the possibility of an identical concept for the two things which differ on condition that they are alike; and implies an analogy in the relation each thing has to this concept; and finally leads to the reduction of the difference between them to an opposition determined by these three moments. According to the other formula, by contrast, resemblance, identity, analogy and opposition can no longer be considered anything but effects, the products of a primary difference or a primary system of differences. According to this other formula, difference must immediately relate the differing terms to one another.
>
> In accordance with Heidegger's ontological intuition, difference must be articulation and connection in itself; it must relate different to different without any mediation whatsoever by the identical, the similar, the analogous or the opposed. There must be a differenciation of difference, an in-itself which is like a differenciator, a Sich-unterscheidende, by virtue of which the different is gathered all at once rather than represented on condition of a prior resemblance, identity, analogy or opposition. As for these latter instances, since they cease to be conditions, they become no more than effects of the primary difference and its differenciation, overall or surface effects which characterise the distorted world of representation, and express the manner in which the in-itself of difference hides itself by giving rise to that which covers it. The question is whether these two formulae are simply two manners of speaking which do not change things very much, or whether they apply to completely different systems; or indeed whether, while applying to the same systems (and ultimately to the world system), they do not signify two incompatible interpretations of unequal value, one of which is capable of changing everything."

For Heidegger, however, identity, analogy and opposition are not surface effects of intensities. The condition of possibility of being a surface effect for Deleuze is a capacity located within virtual difference, the capacity to represent itself as a present entity. For Deleuze, the creative becoming that the virtual structure of temporality imparts to experience begins only after and around the temporary self-persistence of identities. These identities don't only appear as secondary, derived phenomena , in actualized material such as extensities and qualities. The condition of possibility of quality and extension, of molarity, arborescence and striation is a presupposed identity within the virtual parts of desiring machines, a temporary self-reproduction and self-affection within and as original difference-in-itself. Deleuze's desiring differences each 'take time', albeit a very small quantity of time. Difference-in-itself occupies time, is present in time as this 'now'. Only that which first inheres as itself (even if what inheres is dubbed as

difference in itself) in a countable time can undergo change. Deleuze's virtual-actual , smooth-striated, rhizomatic-arborescent, singular-multiple, temporally coexistent-sequential binaries ground themselves in this dual nature of difference as change, and inhering identity or presencing. Deleuze's virtual syntheses of production can only 'let themselves be taken' as actual species and quantities because difference in itself is already self-calculation as repeatable self-identity. By contrast, for Heidegger taking something as something temporalizes itself via the hermeneutic 'as' structure. Letting something be taken as a qualitative species or quantitative part prescinds from the 'as' structure. That is, it is a deficient mode of relation , a meaningless staring at something by treating it as a present to hand 'is' rather than a circumspective 'as'. In Heidegger's terms, Deleuzian intensities function as subjective enframings of the species and parts that develop from them. Intensive processes posit , set in place and represent the qualities that steadily remain throughout the calculation of difference in degree.

For all its differences with Heidegger's thinking of temporality, Husserl's later work on time consciousness presages Heidegger's understanding of the self-presencing of quality and extension as deficient modes of experience. In Husserl's hands, Deleuze's articulation of two forms of repetition (intensive quantities vs extensive quantification) is transformed into a distinction between constituting (absolute) and constituted (objective) time. The latter corresponds to Deleuze's first passive synthesis of time, in which the sequential counting of extensive quantities , and the distinguishing between qualitatively different quantities, takes place.

> "Each individual object (each unity, whether immanent or transcendent, constituted in the stream) endures, and necessarily endures -that is, it continuously exists in time and is something identical in this continuous existence, which at the same time can be regarded as a process. Conversely: what exists in time continuously exists in time and is the unity belonging to the process that carries with it inseparably the unity of what endures in the process as it unfolds. The unity of the tone that endures throughout the process lies in the tonal process; and conversely, the unity of the tone is unity in the filled duration, that is, in the process. Therefore, if anything at all is defined as existing in a time-point, it is conceivable only as the phase of a process, a phase in which the duration of an individual being also has its point. Individual or concrete being is necessarily changing or unchanging; the process is a process of change or of rest, the enduring object itself a changing object or one at rest. Moreover, every change has its rate or acceleration of change (to use an image) with respect to the same duration. As a matter of principle, any phase of a change can be expanded into a rest, and any phase of a rest can be carried over into change." (Husserl 1964)

Because for Deleuze species and parts, qualities and extensities are actualized developments of implicit, virtual intensities, there is nothing further that needs to be added to the above description by Husserl, nothing to be extracted from the implicit, virtual dimension in order to complete the picture. The role of intensities is to set up the terms for what is actualized as species and parts, and then later transform those terms. It is in this sense that the virtual role of intensities is hidden and that qualities and extensities are surface effects of this deeper becoming. But the positing and transformation of the sense of the actualized qualities and parts is external to what takes place as actualization, just as for Gendlin the implicit holds itself steady while the conceptual scheme it generates reproduces itself. Such is not the case for Husserl. The implicit

awareness of constituting time reveals what is occluded from explicit awareness of the quantitative iteration of enduring objects, and what this implicit awareness reveals is not a sense peripheral or external to the time of persisting objects, but intrinsic to it. What holds only for intensities in Deleuze's understanding of the structure of time, that every change in degree is simultaneously a difference in kind, constitutes the irreducible, absolute essence of all duration for Husserl.

> "Now if we consider the constituting phenomena in comparison with the phenomena just discussed, we find a flow, and each phase of this flow is a continuity of adumbrations. But as a matter of principle, no phase of this flow can be expanded into a continuous succession, and therefore the flow cannot be conceived as so transformed that this phase would be extended in identity with itself. Quite to the contrary, we necessarily find a flow of continuous "change", and this change has the absurd character that it flows precisely as it flows and can flow neither "faster" nor "slower." If that is the case, then any object that changes is missing here; and since "something" runs its course in every process, no process is in question. There is nothing here that changes, and for that reason it also makes no sense to speak of something that endures. It is nonsensical to want to find something here that remains unchanged for even an instant during the course of its duration."(Husserl 1964)

To be clear, the constituting time of the living present doesn't achieve its transcendence of continuous identity, of speeds and slownesses , by virtue of being an empty awareness which abstracts away from all contents of appearance. On the contrary, it is objective time which abstracts away aspects of the actually appearing content in order to arrive at such idealizations as identically persisting qualities and speeds and slownesses of movement.

> "Can one speak in the strict sense of change in a situation in which, after all, constancy, duration filled out without change, is inconceivable? No possible constancy can be attributed to the continuous flow of appearance-phases. There is no duration in the original flow. For duration is the form of something enduring, of an enduring being, of something identical in the temporal sequence that functions as its duration. In the case of processes such as a thunderstorm, the motion of a shooting star, and so on, we have to do with unitary complexes of changes in enduring objects. Objective time is a form of "persisting" objects, of their changes and of other processes involved in them. "Process" is therefore a concept presupposing persistence. But persistence is unity that becomes constituted in the flow, and it pertains to the essence of the flow that no persistence can exist in it. Phases of experience and continuous series of phases exist in the flow. But such a phase is nothing that persists, any more than a continuous series of such phases is."(Ibid)

It is significant that Deleuze's account of the actualization of the virtual, the development of intensities in terms of the quantitative extension of qualities, makes no distinction between actively meaningful engagement with objects and just dumbly staring at something. Deleuze's failure to make this distinction leads him to confuse mathematical with non-mathematical idealities and prevents him from locating the sense of extensive duration. Deleuze gives ordinality priority over cardinality within the virtual dimension of intensive quantities, because he says the counting of qualitative differences (intensive quantity) is not the repetition of an identical unit. Deleuze(1987) writes:

> "Every number is originally intensive and vectorial in so far as it implies a difference of quantity

which cannot properly be cancelled, but extensive and scalar in so far as it cancels this difference on another plane that it creates and on which it is explicated. Even the simplest type of number confirms this duality: natural numbers are first ordinal - in other words, originally intensive. Cardinal numbers result from these and are presented as the explication of the ordinal. It is often objected that ordination cannot lie at the origin of number because it already implies cardinal operations of colligation. This, however, is because the formula 'the cardinal results from the ordinal' has been poorly understood. Ordination in no way presupposes the repetition of the same unit which must be 'cardinalised' every time the following ordinal number is reached. Ordinal construction does not imply a supposed same unit but only, as we shall see, an irreducible notion of distance - the distances implicated in the depth of an intensive spatium (ordered differences). Identical unity is not presupposed by ordination; on the contrary, this belongs to cardinal number and presupposes an extensive equality among cardinal numbers, a relative equivalence of exteriorised terms. We should not, therefore, believe that cardinal number results analytically from ordinal, or from the final terms of finite ordinal series (the preceding objection would then be justified). In fact, ordinal number becomes cardinal only by extension, to the extent that the distances enveloped in the spatium are explicated, or developed and equalized in an extensity established by natural number. We should therefore say that, from the outset, the concept of number is synthetic."

"The number distributes itself in smooth space; it does not divide without changing nature each time, without changing units, each of which represents a distance and not a magnitude (the freeing of a line that does not pass between two points).The ordinal, directional, nomadic, articulated number, the numbering number, pertains to smooth space, just as the numbered number pertains to striated space."

Deleuze reads Husserl's use of 'cardinal' as referring strictly to a 'how many' that counts identical increments within the same qualitative whole. In other words, the distinction between ordinal and cardinal comes to that between difference in kind and difference of degree. The meaning of number in general is irreducibly grounded in the nature of what is being counted, and because intensive quantities are, as Deleuze says, more original than extensive quantities, change in nature of the elements being counted establishes the basis for understanding what it is we are doing when we enumerate. At the same time, the condition of possibility of extensive quantification must be present within the units of intensive changes in kind. That is, number thought as difference in degree can only arise from number as iteration of difference in kind if intensive difference already begins as briefly persisting qualitative self-identity. An intensive difference occupies an infinitely small duration of time. It counts itself as this brief self-persistence before qualitatively changing into difference in kind. This repetition of self-affecting presence is what makes possible the development of intensity as extension. For Husserl, number in itself is not tied to anything but itself. Enumeration, as an empty 'how much', abstracts away all considerations that pertain to the nature of the substrate of the counting, including whether that substrate offers itself up for measurement in qualitatively or quantitatively changing increments. Enumeration represents what Husserl calls a free ideality. Derrida characterizes this feature of number in the following way;

"I can manipulate symbols without animating them, in an active and actual manner, with the attention and intention of signification(crisis of mathematical symbolism, according to Husserl)". (Derrida 1988) ."

"Now, Numbers, as numbers, have no meaning; they can squarely be said to have no meaning, not even plural meaning. …Numbers have no present or signified content. And, afortiori, no absolute referent. This is why they don't show anything, don't tell anything, don't represent anything, aren't trying to say anything. Or more precisely, the moment of present meaning, of "content," is only a surface effect."(Derrida 1981).

Numeric idealization is unbound (within the strict limits of its own repetition); no contextual effects intervene such as was the case in the attempt to repeat the same word meaningfully. Contextual change implies change in meaning, and a mathematical ideality can be manipulated without being animated, `in an active and actual manner, with the attention and intention of signification'.Such an ideality can be repeated indefinitely without alteration, because its meaning is empty. In the case of a bound ideality, what repeats itself as self-identical returns to itself as `the same' subtly differently each time; the immediate effects of contextual change ensure that alteration is intrinsic to the repetition of an intentional meaning. Because it is a free ideality , it doesn't matter whether we consider enumeration as a counting of a series of elements composed of differences of kind or of degree. What makes all enumeration cardinal before being ordinal is that in order to know what 'how many' means, we have to abstract away from the features of a series of elements that would reveal its iteration to be qualitative or quantitative, and produce a synthetic act that holds in mind simultaneously the memory of previously specifically and separately noticed elements, and a current specifically noticed element.

"In forming the representation of the totality we do not attend to the fact that changes in the contents occur as the colligation progresses."(Husserl 2003).

Simultaneously holding in mind past elements and a current element is precisely what Deleuze is doing whenever he thinks the idea of an intensive quantity, which is what makes the counting of intensive quantities cardinal in Husserl's sense but not in Deleuze's sense. Both ordinality and what Deleuze means by cardinality (the repetition of identical units) is the answer to a different, higher order question than the simple 'how many'. So why does Deleuze not see that numeric repetition (counting , quantification , enumeration, calculation), rather than being either a repetition of identities or of differences, is an entirely different kind of synthetic activity? I think for him to do so would require him to deconstruct the presuppositions behind Nietzsche's Eternal Return in the direction of Heidegger's critique of presence and time as a countable sequence of nows. I have suggested that, despite Deleuze's claim that number is 'originally ordinal' (intensive) and only secondarily a counting of identical units (extensive), the self-identity of intensive difference precedes and makes possible its role as qualitative differentiator and genesis of extensities. Deleuze wants to offer a foundation of number and mathematics as a subversive, creative force, an affirmation of Nietzsche's eternal return as the 'roll of the dice'. But he begins too late. What Husserl, and Heidegger after him, recognized is that numeration never counts anything but its own self-iteration, devoid of sense and meaning outside of the empty 'same thing, different time'. To experience an object as meaningful beyond this 'how much' is to no longer attend to it as calculative, countable iteration, as persisting self-identical presence. Like Gendlin, Deleuze does not appear to recognize that the iteration of extensive quantity is devoid of meaningful sense. He misses the qualitative change in sense that is necessary in order to produce the notion of 'something' (a unit) as a specifically and separately noticed element of a multiplicity.

Footnote: In a letter to his friend Stumpf from 1891, Husserl remarks:

"The opinion by which I was still guided in the elaboration of my Habilitationsschrijt, to the effect that the concept of cardinal number forms the foundation of general arithmetic, soon proved to be false . . .. By no clever devices, by no 'inauthentic representing,' can one derive negative, rational, irrational, and the various sorts of complex numbers from the concept of the cardinal number. The same is true of the ordinal concepts, of the concepts of magnitude, and so on. And these concepts themselves are not logical particularizations of the cardinal concept."

A number of scholars have interpreted this letter to indicate that over the course of Philosophy of Arithmetic, Husserl changes his mind concerning the primacy of number concepts in grounding arithmetic. Or, more likely, Husserl had already begun to change his mind before writing that book and decided to leave his incorrect ideas about the primacy of cardinality in the first chapters along side the corrected view in the later chapters. These interpreters believe that in the later chapters Husserl describes purely symbolic calculation for complex forms of mathematics that are completely independent of, and do not derive from, the cardinal numeric concepts in the first section. But I agree with the following from Micah Tillman (2012):

"Thus, I would argue that Willard's conclusion in "Husserl on a Logic that Failed"-that Husserl ultimately rejects his understanding of calculation as being based upon number concepts-is misleading. What Husserl in fact discovers is that there are three natural, or well-motivated types of calculation. The first two directly involve working with number concepts (in other words, they directly involve conceptualizing numbers), with the second growing out of the first. The third adopts the sign system developed to facilitate the second type of calculation, and works with that system alone, without conceptualizing numbers.

Nevertheless, it is derived from, and justified by, the system of number concepts developed for the second type of calculation. The third type of calculation is not a direct involvement with number concepts, and yet it remains fundamentally based upon the number concepts. Willard is correct, therefore, that Husserl discovers that mathematics-as it is actually practiced by contemporary mathematicians-"is [not] based entirely upon the concept of number." It is, rather, based upon the concept of number by way of a sign system which is itself based upon the concept of number [mechanical, symbolic calculation is based on conceptual calculation]. What Husserl does, then, between writing his Habilitationsschrift and completing PA, amounts to discovering not that his original theory of arithmetic was wrong, but rather that an important new layer had to be included in his theory's fully-developed version. This is why PA hangs together as a work; the final chapter is not an about-face, but the logical next-and concluding-step in Husserl's argument."

Deleuze's conflating of logic-mathematical calculation and meaningful sense, free idealities and bound idealities, may help us to understand the basis of his critique of Husserl's account of the relation between formal and transcendental logic. In The Logic of Sense, Deleuze offers his alternative to Husserl's transcendental and formal logic. Deleuze thinks the general form of the Husserlian noema as having its effect in a way resembling Deleuzian intensity in the restricted sense that it operates externally to actualized extensity and quality as their generative cause and impetus of transformation. But for Deleuze this is where the similarity ends. Intensities affirm

the paradoxical, the heterogeneous, the singular, the incompossible, the Eternal Return of the different, the indeterminate, the non-sensical, the roll of the dice within sense, the object=x as difference in general, the virtual event of sense as intensity, the verb underlying the axiomatic , converging, referential functions of actualizing predication. But from Deleuze's vantage, strongly influenced by Sartre's replacement of the Husserlian ego by an anonymous, pre-personal transcendental field, Husserl's transcendental logic of the noema is a ' sleight of hand', a reading back into the transcendental an empirical, general logical predicate (good sense and common sense, the Platonic image of thought, where the ground is larger than the grounded, the immanent is immanent to something transcendent). In other words, Deleuze seems to equate Husserlian noematic sense with empirical sense data bound together and imprisoned by a ready-made self-communicating subject.

> Footnote: Deleuze undoubtledly interpreted Husserlian pronoucements such as the following in that light:

> "Indeed, perhaps it will turn out later that all externality, even that of the entire inductive nature, physical and even psychophysical, is only an externality constituted in the unity of communicative personal experience, is thus only something secondary, and that it requires a reduction to a truly essential internality." (Husserl 1977)

Deleuze's critique would be fitting if it were the case that the noema signified a qualitative content, and its general form represented itself as a sequential flow of empirically objective , ready-made data, which is apparently how Deleuze understands the constituting time of the Husserlian transcendental subject. Put differently, Deleuze reads Husserl as locating within extended, qualified objects smaller actualized quantifiable qualities, which Husserl calls noematic sense. This must be so since Deleuze's division of the world into a virtual and actual half provides him with only two options for interpreting the status of sense. Deleuze clearly does not believe that Husserl's constituting strata of objectivation take into account the intensive, paradoxical nonsense within sense. Therefore, from Deleuze's vantage, it must be the case, for instance, that the immanent consciousness of the individual moments of perspectival adumbration of a spatial object is Husserl's description of the relation between actualized species and their extended parts. But this is not at all how Husserl sees the full noematic content. The generality of the noema is the empty formality of constituting time, the general sense of sense as constituting flow connecting retention, impression and protention. There is nothing of quantity or extensity in a spatial object when we understand the logic of its constitution in the most primordial way:

> "Can one speak in the strict sense of change in a situation in which, after all, constancy, duration filled out without change, is inconceivable? No possible constancy can be attributed to the continuous flow of appearance-phases. There is no duration in the original flow. For duration is the form of something enduring, of an enduring being, of something identical in the temporal sequence that functions as its duration." (Husserl 1964)

Meanwhile, given that Deleuze considers actualized forms, including individuals, as analytic predicates, aren't his categories of actualized species and parts, quality and extension, contentful generalities, formalisms? Deleuze questions the basis of Husserl's levels of transcendency of

sense bestowal, but for Husserl, these levels of idealization (from primary transcendence of spatial objects to secondary transcendence of alter egos) work within what for Deleuze would be the actual. This noetic-noematic structure includes a kind of virtual or implicit within and inseparable from the actual. This virtual within the actual brackets off and reduces Deleuze's actual, which fails to recognize what the noesis is contributing to the qualitative and extensive idealizations produced as noematic objects. That is, Deleuze's notion of the actual fails to exclude transcending presuppositions concerning what exists.

Deleuze expects to see heterogeneity, incompossibility, paradox, divergence and singularity where his actualized idealizations of objects and subjects undergo intensive change, because divergence is the only way that natural objects can relate to each other. Instead Husserl describes changes characterized by similarity, synthetic coherence, correlation, recognition, concordance, belonging, unity and 'ownness' with respect to a constituting Ego. His notion of doxa (belief) grounds itself in truth by way of the infinite task, infinitization itself via the eidetic method rather than via logico-mathematical calculation. Doxa presupposes validation which expresses the fundamental intricacy of experience in terms of anticipation of relative inferential compatibility. Doxa as validation is unavailable to Deleuze due to the weakly assimilative nature of the relation of difference for him. From Deleuze's vantage, only an internal gyroscope can force such apparently platonic formations as coherence , concordance and validation into being (he says Husserl "puts into play the highest synthesis of identification inside a continuum, all the lines of which converge or concord"). The continuum Deleuze is referring to is the teleologically organized strata of transcendence constituted within the Ego, leading from immanent object to empirical object and alter ego. Deleuze (1994) considers Husserl's notion of noematic sense as an example of good sense:

> "…the systematic characteristics of good sense are thus the following: it affirms a single direction; it determines this direction to go from the most to the least differentiated, from the singular to the regular, and from the remarkable to the ordinary; it orients the arrow of time from past to future . . . ; it assigns to the present a directing role . . . of distribution in which all of the preceding characteristics are brought together. Good sense plays a capital role in the determination of signification, but plays no role in the donation of sense."

When one contrasts good sense with the generative power of singularities producing the paradoxical play of sense and nonsense, one locates co-existing elements , external to each other, in reciprocal relations of difference. Could not Husserl point out that grounding changes of sense in differential elements external to and co-existing with each other retains the naive naturalist presupposition of independent genesis? Each element in reciprocal inter-causation exists instantaneously as an intrinsic content before and outside of its being affected by its relation with other elements. Each element's intrinsic differential effect is presupposed as a briefly persisting self-identity co-existing among a multiplicity of other briefly, independently self-identical differences, which then affect each other. It is the presumption of brief self-identity within each irreducible element of singular difference (the grounded is identical with the grounding) that justifies Deleuze's depiction of the actual in terms of extensive duration. For Husserl, by contrast, each element in the flow of experienced time is produced synthetically via temporal association with the previous element, rather than already having its own instantaneous extension that is only secondarily changed by relation with its neighbors. This

synthetic , associative belonging of what appears to what preceded it in the flow of time consciousness embues Husserlian difference with its character as intricate and assimilative rather than external and disparate. This structure is the basis of the Husserlian transcendental Ego, and gives the Ego the means to insert itself within Nietzsche's Eternal return as intricate correlation within naive difference.

Husserl knows that achieving absolute , infinitely repeatable self-identity is only possible through mathematization, but he also knows that numeration abstracts away all meaningful sense. Meaningful , apodictic truth is an infinite task because eidetic method, transcendental reduction and epoche can only get us infinitely closer and closer to a convergence on pure self-identity. But I think one can put into question this teleological arrow of correlation without doing away with what I think is the heart of Husserl's philosophy, which is the intimacy and content-deprived nature of the flow of constituting experience. Husserl was the first to discover what Gendlin(1987) called the experiential intricacy, which forms the basis of the science of the Lifeworld, whose structure (a priori of correlation) can be uncovered through the infinitizing method of the reduction. This intricacy within difference is invisible to Deleuze, so he misinterprets it as a cancellation of difference, the normative subordination and conformity of differences within a particular superordinate qualitative predicate (Husserl's transcendental subjective Ego). In other words, Deleuze mistakes Husserl's notion of noematic sense for an analytic predicate, the converging lines within the circle of a logical proposition expressed by the object =x, the object in general.

Conclusion:

As divergent as Husserl's transcendental phenomenology is from Heidegger's existential analytic in many respects, his analyses of bound and free idealities paved the way for Heidegger's articulation of a fundamental distinction of sense between the calculation of persisting objective presence (extensive duration) and the temporalization of concerrnful being. This distinction between a naive and a reduced logic of duration, which I have traced through Heidegger's exposition of the 'as' structure, his thematic of temporality and the thinking of technology as standing reserve, is only partially realized in Gendlin's and Deleuze's accounts of the relation between an implicit, virtual, and explicit, actual dimension of experience. While the latter argue that quantitative extension is a surface effect of difference, they nonetheless misconstrue the empty, meaningless temporalization of logical calculation as the explicitly preserving carrying-through of already instituted implicit sense. As a result their thinking retains naive naturalistic presuppositions from the empiricist tradition.

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