Rasmus Ugilt

HEGEL AND THE RHYTHM OF LOGIC

In a few short but crucial passages in the *Phenomenology of Spirit*[1] and *the Science of Logic,*[2] Hegel repeatedly uses a curious term: *rhythm.* He invokes it five times towards the end of the Preface to the *Phenomenology*, where he discusses themes such as the nature of scientific method, speculative philosophy and the destructive force of the speculative proposition. In the Introduction to the *Logic* he again uses the concept in this striking passage:

> How could I possibly pretend that the method that I follow in this system of logic, or rather the method that this system itself follows within, would not be capable of greater perfection, of greater elaboration of detail? Yet I know that it is the one and only true method. This is made obvious by the very fact that this method is not something distinct from its subject matter and content—for it is the content in itself, the dialectic which it possesses within itself, which moves the subject matter forward. It is clear that no expositions can be accepted as scientifically valid that do not follow the progression of this method and are not in tune with its simple rhythm, for it is the course of the subject matter itself.[3]

The idea that rhythm is crucial to philosophical thinking and method is both novel and, to my mind, highly interesting. At the same time, it has received little attention in recent research on Hegel. There are of course exceptions. Jean-Luc Nancy's book from 1973, *The Speculative Remark (One of Hegel's Bons Mots)* presents a reading of Hegel's concept of *Aufhebung* and concludes that rhythm is both a crucial and a largely overlooked concept for our understanding of this key Hegelian term.[4]

More recently, Rebecca Comay has touched upon Hegel's preoccupation with rhythm in her article "Resistance and Repetition: Freud and Hegel." Here she argues that, if he is read through the lens of Freud, "Hegel appears less as a philosopher of inexorable progress (the infamous cunning of reason) than as a thinker of repetition, delay, and stuckness."[5] Repetition, delay, and stuckness are all concepts that have a certain rhythmic quality to them. If we look at the many famous characters of the *Phenomenology* guided by these terms, we can begin to imagine the rhythmic trajectory at work in them. Sense-Certainty, the Lord and the Bondsman, the Unhappy Consciousness, or the various forms of Reason, Spirit and Religion

are all in a sense "stuck" in a pattern of thinking and being. They are stuck in a way that could be described as rhythmic. On the one hand, because they are breaking off or disrupting a certain rhythmic pattern;[6] on the other, because there is a rhythm that in turn emerges through these very disruptions. As Comay notes, "Hegel will identify this deferring, disaggregative, interruptive—strictly death-driven—rhythm of thinking with the work of analysis itself, the unsung hero of the entire undertaking."[7]

The *way* in which rhythm is central to Hegel is still open to debate, however. In particular, it seems difficult to imagine how the concept of rhythm could have a central role to play in the *Logic*.[8] Nancy and Comay both focus primarily on the *Phenomenology* in their discussions of the term,[9] and the reason for this focus should not be difficult to see. One can relatively easily make sense of the idea that there is a rhythm in the life and development of the experience of consciousness presented by Hegel in the *Phenomenology*; after all, the life of consciousness is spatio-temporally determined, and thus subjected to the rhythms of life as we know it. The determinations of thought that are expounded in the *Logic*, on the other hand, are neither spatial nor temporal. And thus it is much more difficult to imagine how they could be rhythmic.

Henry Lefebvre's idea of "rhythmanalysis"[10] can bring us closer to this problem. Lefebvre proposes rhythmanalysis as a way of investigating the specific historical and social situation of late capitalism. He stipulates that "[e]verywhere where there is interaction between a place, a time and an expenditure of energy, there is rhythm."[11] He argues that rhythm provides a fruitful point of departure for an analysis that follows the movements of the concrete matter at hand:

> This supplies the framework for analyses of the particular, therefore real and concrete, cases that feature in music, history and the lives of individuals or groups. In each case the analysis should ride with the movements in whichever work or whichever sequence of actions until their end.[12]

Although he does not mention it, Lefebvre is here echoing Hegel's idea, in the quote from the *Logic* above, about rhythm as a methodological principle for philosophical analysis that follows the dialectic inherent in the content. Still, because Lefebvre is precisely stipulating that rhythm takes place where there is *space, time* and *energy*, we are from the start precluded from seeing how rhythm could make sense in *logical* analysis: "No rhythm without repetition in time and in space," as Lefebvre puts it.[13]

Hegel's *Logic* is certainly no ordinary logic, but it does follow mainstream philosophical ideas of logic in that it is a-temporal and non-spatial, even though Hegel's logical categories do undergo certain *movements*: those which (in)famously take place in "the mind of God before creation."[14] My aim in this paper is to make sense of these logical movements in terms of rhythm, precisely in the way that Hegel is proposing in the passage from the *Logic* quoted above.

Lefebvre's take on Hegel is, unfortunately, disappointing. He does discuss him in the book, but focuses on the somewhat tiresome triadic structure of thesis-antithesis-synthesis. Lefebvre argues that Hegel makes progress in moving on from what he calls dialogical analysis (in which two terms are posited against each other) to what he calls dialectical analysis (in which three terms are involved), and places his own triad of space-time-energy alongside triads formulated by Marx and Hegel.[15] Still, he eventually falls into the trap of understanding Hegel in an all-too-familiar way, where synthesis stands for the final "closure" of the dialectical movement.[16] This equation of Hegel's idea of rhythm with that of a final or closing synthesis (in a fusion of the former two terms) is certainly a misconstrual. I believe that we must go into much finer detail regarding Hegel's expositions in the *Logic,* in order to get at the point he is making about rhythm. In the following section I will seek to do so by engaging with Dieter Henrich's interpretations of Hegel.

System and method

In the history of Hegel scholarship, Dieter Henrich's work in the 1970's remains special. Henrich's attention to the most minute details in the dense passages of the *Logic* was unsurpassed at the time he wrote his interpretations, and it still is. As will be clear below, I do not agree with Henrich in everything, but his classic readings of Hegel are very useful for my argument, although he does not pay much attention to rhythm itself at all. What he does, instead, is to take seriously the idea Hegel presents about system and method in the passage quoted from the *Logic* above. The method of speculative philosophy must emerge from the subject matter itself, if it is to form a philosophical system worthy of the name. My point is that if we pay attention to how Henrich develops this Hegelian idea, we will be able to make sense of how and why it is precisely in the *Logic* that we find the most striking version of Hegelian rhythm unfolded and worked through.

The idea of a system is the idea that the totality of existence can be explained as a coherent whole: "the true is the whole," as Hegel famously put it.[17] This idea of a systematic philosophy that encompasses everything certainly comes with a few well-known problems. The accusation that his philosophy is in fact a political crime seems forever to cling to Hegel, and thus it tends to be something all Hegelian philosophers must confront in some way. Indeed, both Nancy and Comay (following Derrida, who is a crucial source of inspiration for both) reject the suffocating metaphysical notion of an all-encompassing system so often ascribed to Hegel. Thus, when Comay argues that he is a philosopher of "repetition, delay, and stuckness"[18] she is also trying to save Hegel from the most systematic tendencies of his own thought.

While I do agree with Comay and Nancy that it is crucial to notice the importance of rhythm in Hegel, and while I also agree that there are crucial elements of delay and stuckness in the rhythm of Hegel's philosophical thought, I am still not inclined to let go of the idea of the philosophical system. It is, I believe, in the very

idea of a (supposedly "totalitarian") philosophical system that Hegel provides us with the resources to expose what rhythm—and in turn stuckness—really mean.

By arguing in this way, I am of course going directly against the idea of a system as a smoothly functioning metalanguage. While I am defending the idea of a system, I am not defending the idea of system as an ultimate philosophical checklist, a complete set of final answers to the crucial philosophical questions. In my view, this kind of "absolute knowledge" is not what makes up Hegel's system. The crucial point, however, is that it is not because Hegel is *less* hyperbolic, *less* metaphysical, that he manages to avoid the trap of a philosophical metalanguage; on the contrary, it is precisely because Hegel goes all the way in the direction of metaphysical hyperbole that his philosophy is beyond the reproach of those critics who see his metaphysics as criminal. Paradoxically enough, it is in virtue of his vehement ambition to create a total system that Hegel's philosophy outwits the standard critique of philosophical "totalitarianism."

To put the point briefly at first: This idea of system as a philosophical check-list has a crucial requirement. If the system is to stand as such, then it must be a finished structure; in order to function smoothly, the meta-language has to be set in stone. One thing must therefore be excluded from the finished system, namely the genesis of the system itself, if it is to be understood in the way Hegel's critics tend to do, when they are lamenting his idea of a system. In other words, if the system in fact does integrate its own method of construction, then it ceases to function as a meta-language, and then it cannot play the role of a philosophical checklist. My point is that this is what Hegel was aiming for, when he said "The Truth is the Whole." With this remark Hegel precisely sought to integrate the genesis of the system in the system itself, not in order to further cement the system as a metalanguage, but rather to reconfigure the very idea of what a system could be—to open up the philosophical field for another understanding of systematic thought.

This idea is also guiding Henrich's readings of Hegel. He sets out to show how the very thinking of the system, i.e. the method of constructing it, is identical to the system itself in Hegel. Henrich himself does not call this auto-genetic movement rhythmic, but as I will show below it does in fact make sense to look at it that way.

Autonomous negation

The crucial point of Henrich's reading of Hegel is that there is a fundamental concept at work in Hegel's *Logic* that makes it possible to identify system and method in the described way: autonomous negation.[19] For Henrich, it is the key to understanding how the developments from notion to notion in Hegel's *Logic* truly take place. Every movement in the *Logic* is undertaken as a transformation of the original autonomous negation, where each step simultaneously is constructing the system and inventing the method for this particular step. In this way the method for constructing the system is never external to the system; there is identity between system and method.

Autonomous negation is a form of negation that is very similar to the usual understanding of a negation: autonomous negation is a "not…." It differs from the usual understanding of negation in that it negates without presupposition. This means that it negates without having anything "there" that is negated.[20] This is what is entailed in its "autonomy." Thus, this negation works like a negation in a sentence such as, e.g., "the book is not red," only without the book or the redness or any other positive concept.

Furthermore, Henrich points out that the autonomization of the negation should not be understood as a substantivization. That is, it should not be understood as the "Nothing" which existential philosophy and phenomenology (e.g., Kierkegaard and Heidegger) have addressed in various ways.[21] The autonomous negation is rather a curious form of negation that does not negate anything. The autonomous negation merely says "not…."

According to Henrich, the dialectics that Hegel bases on the autonomous negation consists in taking the steps that are necessary to avoid suffering a logical breakdown once one has made autonomous negation the starting point.[22] Henrich's point is that the only way to defend the idea of the autonomous negation is to let it point towards itself. "Not not" is thus the necessary next step after the autonomous "not …." Or, in Henrich's words, "Autonomous negation is thus necessarily always already a double negation."[23]

The next point is that this double negation should not be understood as an affirmative statement, as is known from the most common forms of general logic. It is not simply a version of "P = not not P." The reason for this is, again, that we cannot legitimately at this point introduce any positive predicate or statement "P." Instead, the idea is that the negation negates itself as negation; it is not simply a negative statement, it is rather a negation that is self-negating. In Henrich's words: "The negation that the negation is negating, negates itself."[24] Thus, what is negated in the double negation (of autonomous negation) is the very process or act of "negating."

Henrich argues that this self-negating negation possesses "generative force."[25] From what has already been said it follows that autonomous negation is active in a productive way. Something is generated by the very self-negating negativity of autonomous negation. Perhaps surprisingly, what is produced by the generative force of autonomous negation is a concept of immediacy. In fact, Henrich introduces three concepts of immediacy that are produced by the autonomous negation.

The first concept of immediacy is found by Henrich with the argument that the self-relation of the autonomous negation is itself a form of immediacy; the doubling of the negation that follows from the idea of the autonomous negation is precisely immediate. Thus, the first concept of immediacy is the autonomous negation itself, understood as the immediacy of autonomously negating. Henrich says: "It (the negation) implies no relation to an other, it is only relating to itself."[26] Because autonomous negation can do nothing other than relate to itself, that is to negate

itself, and thus needs no external intervention in order for it to negate itself, this pure self-relating negativity is immediate.

The second concept of immediacy is the *result* of the self-negating activity of autonomous negation. To see how immediacy arises as a result of the self-negation of autonomous negation, we only have to consider that its own activity towards itself is a destructive one. If autonomous negation is self-negation, that must mean that it effectuates its own disappearance. In Henrich's words "The self-relation of negation is therefore at the same time its own self-cancellation.[27] Importantly, this disappearance is not without result. What emerges after the negation has dissolved itself is a situation where there is no negation. This situation is precisely immediacy, in the sense of that which is completely unmediated, i.e. without negation. In the words of Henrich, "From the logical situation in the beginning, in which only the (autonomous) negation was thought, a new situation has emerged, one in which there is no negation at all."[28] This situation without any negativity is the second concept of immediacy.

The third concept of immediacy is the concept of the transition from the first to the second. The second concept of immediacy is only there because of the self-negation of the first. In this way, there is a minimal umbilical cord between the situation in which there is no negation at all and the original situation in which there is only autonomous negativity. The third concept of immediacy that Henrich finds in Hegel is thus the ultimate success of the *Logic*. Even the notion of immediacy thought of as the purity of the situation in which there is no negation at all, can be thought of as produced by autonomous negativity. The point here is, in other words, that even pure immediacy, the very thing that is devoid of negativity altogether, can be shown to have been produced by pure negativity.

The rhythm of Henrich's reading

To get a sense of the rhythm in Henrich's version of the *Logic*, we should recall Hegel's idea of the identity between system and method. There can be no difference between the method that establishes the system and this system itself, because otherwise the system does not live up to the demand that the truth should be the whole. What Henrich does with autonomous negation is to construe a logical thought that at one and the same time *thinks* the system and *is* the system while keeping this procedure tightly secured by logical necessity. To put the same point in different terms, what Henrich is seeking to accomplish is a certain *simultaneity* between logical conditions and the statements that are supported by those conditions.

Hegel's *Logic* begins in a point where there are no rules to guide the logical steps that follow, because the method cannot be given in advance. Still, according to Henrich, this point, the negative point of autonomous negation, has a generative force that necessitates a series of logical steps. But because it cannot rely on rules of inference given in advance, each step forward must invent the rules that gov-

ern the step as it is taken. Thus for each move Henrich makes in his argument, he is simultaneously doing two things: he makes a statement and by making that statement, he is at the very same time producing the conditions that guarantee that the statement is necessary. For each step from autonomous negation, to double negation, to self-destructive negation to the three forms of immediacy, system and method co-evolve.

This demand for simultaneity between condition and statement gives Henrich's reading of Hegel an unusual extra "problem" to overcome. It is not enough that his arguments are logically sound, because if this soundness can only be shown by stipulating a set of rules *prior* to the argumentative steps are taken, then Henrich has failed. It is this very need for simultaneity, rather than the accuracy and soundness of his reading that interests me here, because here we can see that rhythm plays a crucial role in Hegel's *Logic*. What better description could we give of the requirement of simultaneity between logical conditions and statements, than to say that there must be a very specific rhythm to the movements of Hegel's *Logic*, namely the rhythm of statements and conditions being completely in synch.

This rhythm is neither spatial nor temporal. It thus does not follow the paths of the rhythms, we are generally accustomed to. The rhythm of music for instance is distinctly temporal. The rhythm of a heartbeat pulsating through our veins is both spatial and temporal. The rhythm of dots in the line below is spatial:

. .. .

The rhythm of Hegel's *Logic* on the other hand takes place in a different field altogether: the realm of logical conditions and statements. To get a feeling not only for how rhythm can be at play in the field of logic, but also for how the rhythm of Henrich's reading of Hegel is something out of the ordinary, we should consider how conditions and statements normally relate to each other in logic.

The logical conditions required for claiming the necessity of a certain statement does not temporarily precede the statement. But they are usually thought to be logically prior. Thus, for instance, the conditions that allow me to claim the statement B in a standard syllogism such as *modus ponens,* logically precede that statement. (The rule that I can conclude "B" whenever I have "A→B" and "A" must be *given in advance*—logically not temporally—in order for me to make that inference "B"). One could say that logic usually follows a rhythmic pattern that goes: condition then statement, condition then statement etc. Hegel's *Logic*, however, cannot follow this pattern, because it sets out from the identity of system and method. In Henrich's version the pattern would look something like this: condition-and-statement condition-and-statement condition-and-statement etc.

There are two potential points of criticism, we should mention regarding this kind of rhythm. The first consists in the worry that it is impossible to establish a regulated notion of necessity within Hegel's *Logic* as Henrich presents it. If we are making the rules of inference up as we go along (which is what Henrich seems to be

doing), then it could be argued that there are no rules at all. As striking as this point might seem, I do not think it hits the mark regarding Henrich. Henrich does in fact have an explanation of why the single steps in his rendering of Hegel's *Logic* are necessary. Each step that simultaneously establishes a statement and the logical condition necessary for making that statement is necessitated by being what I called "the steps that are necessary to avoid suffering a logical breakdown once one has made autonomous negation the starting point" (see above).

The second potential point of criticism has to do with the cadence Henrich sees in the *Logic*. Ultimately, I do not think that Henrich's reconstruction of Hegel's *Logic* is successful. But that is not because he is wrong in upholding the systematic ambition of Hegel, nor because there is a logical fault in his exposition, but rather because the rhythm of his reading follows cadence that is too strict. At the same time this is the point where Henrich's reading is most interesting, because the very fact that there is a crucial notion of cadence at play in Henrich's reading makes it evident that there is a certain rhythm at work in Hegel's *Logic*.

This is the genuinely interesting question that is opened up by Henrich's reading of Hegel: if the *Logic* is rhythmic, what rhythmic pattern does it follow? I think the cadence of the simultaneity of condition and statement misses the mark. But that merely opens up the field to ask further questions about the rhythm of the *Logic*.

Henrich, Hegel, Kleist

The step by step simultaneous development is closely connected to another idea about Hegel's *Logic* that Henrich has defended on numerous occasions: linearity.[29] It is a theory "that starts from just one concept"[30] and shows how all other fundamental concept can be defined in its terms. From autonomous negation Henrich seeks to draw a long line of concepts that follow from it, like knots on a string or pearls on a necklace. The only way he can do that, however, is by making sure that the series of conditions and the series of statements are in absolute lockstep—i.e., by making sure that they follow the cadence of simultaneity.

In a certain, quite illuminating way, Henrich's reading of Hegel brings to mind Heinrich von Kleist's famous text "On the Gradual Construction of Thought During Speech."[31] Kleist begins the text by boldly claiming that the best thing one can do, if one is in doubt about the answer to a tricky question, is to explain the answer to a good friend. One should precisely not explain the question or the troubles one has in understanding it, nor should one wait for the other to ask further questions back. Instead, one should precisely begin to do the very thing one cannot: explain the answer. Kleist's surprising, simple and profound idea is that the mind works best as it is engaged in speech. Often one will find that one learns the answer just as one is saying it out loud.

What Kleist and Henrich have in common here is a recognition of the impossibility of knowing in advance. Kleist's speakers cannot know what they are about to say,

at any prior point in time than when they are saying it. Henrich's Hegelian logic is doing something similar only in the logical realm of conditions and statements. Here the conditions for making the statement can only be known simultaneously with the statement itself. There is a crucial difference, however, that we should investigate. It can be made clear by looking at a famous passage where Kleist discusses Mirabeau's words of thunder to the Master of Ceremonies:

> Take Mirabeau's 'thunderbolt,' with which he silenced that Master of Ceremonies who—after the adjournment of the King's last Royal Session on June 23rd in which he had commanded the Three Orders to vote separately—returned to the assembly hall, where the Three Orders still lingered together, and asked them whether they had heard the King's command. 'Yes,' Mirabeau replied, 'we have heard the King's command.' I am sure that during this humane opening he was not yet thinking of the bayonet with which he concluded: 'yes, sir,' he repeated, 'we have heard it.' One can see that he still does not really know what he wants. 'But what entitles you'—he continued, and now suddenly a well of immense possibilities breaks through to his consciousness—'to draw our attention to commands in this place? We are the representatives of the Nation.' That was what he needed: 'The Nation gives orders and does not take them'—only to hoist himself at once on to the peak of audacity. 'And to ensure that I am making myself perfectly clear to you'—and only now he finds the words to express all the resistance for which his soul is armed: 'go and tell your King that nothing but the bayonet's power will force us to leave our seats'—where-upon, satisfied with himself, he sat down on a chair.[32]

What we are presented with here is a small phenomenological account of the mental process involved in gradually giving form to one's thoughts as one is putting them into speech. Kleist makes it quite clear that he thinks this is a process that develops in fits and starts. Halted at one moment it suddenly flows smoothly the next. The idea behind the simultaneous cadence of Henrich's developments is quite different. Here movements that go in fits and starts are precisely not allowed, because then the idea of linearity would be lost.

The point is, however, that Hegel's *Logic* in fact *does* move in fits and starts. In other words, I think Henrich overstresses the notion of linearity. And in a certain way this point is visible even in the small parts of Henrich's argument I have presented above. In these developments we go from autonomous negation to double negation to self-destructive negation to immediacy. The three concepts of immediacy, however, are more or less explicitly formulated as returns to previous elements. The first concept of immediacy is thus the immediacy of the self-relation of autonomous negation itself; the second concept of immediacy is the immediacy that emerges as a result of self-destruction of double negation; and the third concept of immediacy is the immediacy of the connection between the first and the second concept. Thus, instead of a straight line we have a logical movement that continuously loops back to elements, we in a sense should have left behind. In other words, the movements

of Hegel's *Logic* are precisely stuck in various loops. If Hegel's *Logic* is linear then it certainly has a lot of trouble moving ahead. For each step Hegel would be taking down the line of his allegedly linear logic, he seems to be again and again cast back to a previous point. Much more than being one long triumphant linear progression, Hegel's logic seems stuck (to use Comay's term).

Having said this much, it is crucial to note, however, that we did not reach this result by backing down from the systematic ambition of Hegel's *Logic*. On the contrary, it was a result of a series of considerations that follow from a beginning where we, guided by Henrich, took on the highest systematic ambitions imaginable, namely the ambition to integrate the very genesis of the system into the system itself. In so many words, being the most systematic, the most "totalitarian" can be the best way of resetting the entire philosophical field. The question now is what we are to do with this field that has been opened up. What kinds of rhythm can we find in Hegel's *Logic*, if we begin to look for them?

Retroactivity

In recent years, a very popular approach to Hegel has consisted in viewing his work through the lens of psychoanalytic theory in the vein of Freud and Lacan. In particular, Slovenian philosophers such as Slavoj Žižek, Mladen Dolar and Alenka Zupančič have been investigating new ways in which psychoanalysis and Hegelian philosophy intersect.[33] Here, the concept of retroactivity (*Nachträglichkeit*) has been a point of particular emphasis.

Žižek has discussed retroactivity countless times in his work. I will not be able to go into all the details here, but only briefly look at one very basic example from a recent book, *The Most Sublime Hysteric*. Here, Žižek takes on the old riddle of how many grains of sand it takes to make a pile.[34] The answer, Žižek argues, is given retroactively. Imagine gathering grains of sand one by one:

> At a particular moment, we simply recognize that what we have in front of us was, *at least one grain earlier*, a pile. In other words, the validity of our observation is retroactive; it remains true if we remove a grain.[35]

Here the logical step from one quality to the next (from a few grains of sand coincidentally placed on a surface to a pile) is precisely accomplished retroactively; upon the arrival at a latter stage, a previous stage is retroactively changed. The first time we were at the previous stage it simply was what it was (a few grains of sand), but the second time, (after having moved past it), it turns out to have been something different (a pile).

This is in fact quite similar to the process we have seen unfold in Henrich's rendering of Hegel's *Logic*, where autonomous negation becomes double negation the first time we encounter it, but where it retroactively becomes a concept of immediacy the second time. Henrich himself acknowledges that there is some kind of retroactivity in Hegel's *Logic* although he distinctly phrases it in what I would call a

hermeneutic language of understanding: "In this way, the *Logic* can be understood as a development of meaning, which in the end enables us to understand how it is to be understood."[36] While this is certainly a possible way of interpreting the *Logic*, I do not think it lives up to the expectations Henrich himself set for his reading of it . On the contrary, I think the issue of retroactivity remains unsolved in Henrich's reading of Hegel precisely because he emphasizes the theme of linearity to the degree that he does.

The question is what kind of rhythm is at play in retroactivity? It should be clear that it is a pattern where a certain reversal of prior and posterior, where the latter determines the former. It is relatively easy to write a sequence of retroactivity in logic: statement then condition, statement then condition. But how do we make sense of such a pattern? In the present article I can only make suggestions.

In music this pattern is in fact a very common occurrence. Niels Lan Doky, a relatively well-known Danish jazz-musician, recently explained that improvisation in jazz works retroactively in this precise way. Improvisation does not mean that you can just play anything. Even though you have no score, when improvising, you can still make mistakes. But the wonderful thing is, he said, that when you make a mistake you can retroactively undo it. By including the mistake in the tonal and rhythmic patterns as you continue to play, you will retroactively make sure that the mistake will have been no mistake at all.[37]

Likewise, I think an argument can be made that retroactivity is an essential part of various genres of electronic music—such as jungle, break beat and drum and bass. One of the most famous samples of recent popular music in general is the Amen Break (sampled from the B-side entitled "Amen, Brother" from a single by *The Winstons* in 1969). The Amen Break is not only used very frequently in the genres mentioned before, but has become an ubiquitous part of our collective soundscape 30-40 years, from *NWA*'s "Straight Outta Compton," to the theme music of the tv-show *Futurama*, to various commercials—the Amen Break has been featured in all of them.

The Amen Break consists of 4 bars.[38] The first two bars repeat a basic kick-snare pattern, creating a very familiar circular drum rhythm. The third bar begins in the same way as the former two, but ends by breaking the pattern, in a way that sounds almost as if the drummer missed a beat, creating a short syncopation. And then the fourth bar resolves the tension introduced by the third bar. Viewed from the angle of the present paper, the Amen Break is very nice example of rhythmic retroactivity. A beat that breaks down, but which is then retroactively made to work in spite of its breakdown. And, given the broad distribution of the sample, the Amen Break has the added advantage of showing just how attracted the human mind can be to such retroactive ways of making sense.

All of these examples taken from the world of music share a feature that makes them somewhat problematic for my present purpose. They are by their very nature temporal. Even Žižek's example is in his rendering somewhat temporal, as he puts focus on the sequential adding of grains of sand to a pile one by one. But

the point I am making here concerns the retroactivity in the realm of logic. This is not too much of a problem, though. What these examples show is merely that our thoughts are more than capable of dealing with retroactivity in very divergent and still meaningful ways. In the present article, I did not seek to go into details with the way in which retroactivity is at work in Hegel's *Logic*, nor did I want to investigate the various ways in which retroactivity can be understood rhythmically. Here there is a lot more to say. I merely wanted to show, first of all, that there are distinct and profound rhythmic patterns in Hegel's *Logic* and that the concept of rhythm in fact lies at the very heart of Hegel's project in the *Logic*. Furthermore, I think I have shown that different ways of approaching the *Logic* can result in readings that are rhythmically quite distinct, and conversely that different rhythmic approaches to the *Logic* might result in very different, perhaps even new, understandings of the work. I think the study of the rhythm of Hegel's *Logic* is only just about to begin.

Notes

1. Georg Wilhelm Friedrich Hegel, *Phenomenology of Spirit* (Oxford: Oxford University Press, 1977) 34, 35, 36, 38.

2. Hegel, *The Science of Logic* (Cambridge, UK: Cambridge University Press, 2010).

3. Hegel, *Science of Logic*, 33. I have amended the translation, substituting "fact" for "subject matter" in the final sentence.

4. Jean-Luc Nancy, *The Speculative Remark (One of Hegel's Bon Mots)* (Stanford: Stanford University Press, 2001) 100.

5. Rebecca Comay, "Resistance and Repetition: Freud and Hegel" *Research in Phenomenology*. 45.2 (2015): 237. Comay makes a similar point vis-à-vis Hegel's continued engagement with the French Revolution in her excellent *Mourning Sickness: Hegel and the French Revolution* (Palo Alto: Stanford University Press, 2010).

6. Comay, "Resistance," 245.

7. Comay, "Resistance," 264.

8. Mladen Dolar hinted at the idea in his "Being and MacGuffin," *Crisis and Critique*, 4/1 (2017): 95.

9. Comay briefly mentions the determinations of reflection, which are central to my discussion of Hegel's *Logic* below, but she does not go into detail. Comay, "Resistance," 243.

10. Henri Lefebvre, *Rhythmanalysis: Space, Time and Everyday Life* (London: Bloomsbury, 1992).

11. Lefebvre, *Rhythmanalysis*, 15.

12. Lefebvre, *Rhythmanalysis*, 15-16.

13. Lefebvre, *Rhythmanalysis*, 6.

14. Hegel, *Science of Logic*, 29.

15. "Thus: 'thesis—antithesis—synthesis' in Hegel; or in Marx: 'economic-social-political.' Or more recently: 'time-space-energy.'" Lefebvre, *Rhythmanalysis*, 12.

16. Lefebvre, *Rhythmanalysis*, 12.

17. Hegel, *Phenomenology*, 11.

18. Comay, "Resistance," 237.

19. Dieter Henrich, "Hegels Grundoperation. Eine Einleitung in die 'Wissenschaft der Logik'" in *Der Idealismus und seine Gegenwart. Festschrift für Werner Marx zum 65. Geburtstag, e*d. Ute Guzzoni, Bernhard Rang, and Ludwig Siep (Hamburg: Felix Meiner Verlag, 1976) 216.

20. Dieter Henrich, "Die Formationsbedingungen der Dialektik. Über die Untrennbarkeit der Methode Hegels von Hegels System," *Revue Internationale de Philosophie.* 36 (1982): 154.

21. Henrich, "Hegels Grundoperation," 216.

22. Henrich, "Hegels Grundoperation," 216.

23. Henrich, "Hegels Grundoperation," 217

24. Dieter Henrich, "Hegels Logik der Reflexion. Neue Fassung," *Hegel Studien.* Beiheft 18 (1978): 323.

25. Henrich, "Die Formationsbedingungen der Dialektik," 154.

26. Henrich, "Hegels Grundoperation," 216.

27. Henrich, "Hegels Grundoperation," 216.

28. Henrich, "Hegels Grundoperation," 217.

29. Dieter Henrich, *Between Kant and Hegel. Lectures on German Idealism* (Cambridge, MA: Harvard University Press, 2003) 287.

30. Henrich, *Between Kant and Hegel,* 38

31. Heinrich Kleist, "On the Gradual Construction of Thoughts During Speech," trans. Michael Hamburger, *German Life and Letters* 5.1 (1951): 42-46.

32. Kleist "On the Gradual," 43.

33. Comay's article "Resistance" takes a similar path and argues that it is by looking at Hegelian philosophy through the lens of psychoanalysis that we can free it from the entrapment of the cunning of reason.

34. I have discussed what we may call the "problem of the pile" to a greater extent in "Hegel's Excess," *Stasis* 4.2 (2016): 190-209.

35. Slavoj Žižek, *The Most Sublime Hysteric. Hegel with Lacan* (London: Polity, 2014) 21.

36. Henrich, "Hegels Logik der Reflexion. Neue Fassung," 323.

37. Niels Lan Doky, Heidi Vesterberg, and Sigene Roderik, *Improvisation: i musikken, på arbejdet og i livet* (Copenhagen: Gyldendal, 2015).

38. In musical notation the break looks like this: