

Douglas Lummis

Money and the Metronome

see also Illich, Ivan; Rieger, Matthias; Trapp, Sebastian (1996): Speed? What Speed? New versions of the speeches given at the 'Speed'-Conference of the Netherlands-Design-Institute, Amsterdam, 8. Nov. 1996.

http://www.pudel-uni-bremen.de/subjects/space/Illich_rieger_trapp_speed.pdf

and

Sebastian Trapp (2003): Answer from Sebastian Trapp to a comment to the "speed"-text from Douglas Lummis.

http://www.pudel-uni-bremen.de/subjects/space/Answer_to_Lummis_2.pdf

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Money and the Metronome

Is Speed New?

What on earth are Sebastian Trapp, Matthias Rieger, and Ivan Illich trying to say?

Invited to a conference on “speed” in the Netherlands, where they were presumably expected to support the idea that we live in a society where everything moves too fast, and that we should slow down, they argue that instead of simply shifting down from high speed to low speed we should rid ourselves of the notion altogether. We should begin by understanding “the historicity of speed”. Accepted today as a universal “certainty”, in fact speed had a historical beginning. “The concept of ‘speed’ as we know it,” writes Trapp, ‘is a very recent, a very modern one.’ “Just as speed played no role in the performance of music, falconry and fishery,” writes Illich, “so commerce, medicine and architecture, until the seventeenth century, thrived without reference to it.” This method of relativizing concepts by examining their historical beginnings is classic Illich methodology, and one that often reveals startling and important results. But how does it apply in this case?

The English word “speed” today has two principal meanings: 1) rapid motion, action, or change; 2) rate of motion, action, or change. Thus we can say of an athlete who is a fast runner, “She has speed”, and we can also say of a car driving with a flat tire that it is moving at “a speed of 3 kilometers per hour.” Which of these two meanings (or is it another?) that these three say was unknown in pre – modern times?

Did pre – modern people have no concept of rapid motion, and no wish for it? Trapp tells us that the Oxford English Dictionary “gives old meanings of speed . . . : abundance, success, fortune, lot, assistance, help.” This is highly interesting, but what he fails to tell us is that these definitions are all under roman numeral I, and that there is a second set of definitions listed under roman numeral II: “Quickness in moving or making progress from one place to another, usually as a result of special exertion.” The Oxford English Dictionary gives historical examples of the usage of each word; of this usage, the first example is from the year 1000. Among the later examples it gives is one from 1450: “For more speed, by ship he went”, one from Shakespeare’s *Merchant of Venice*: “Madam, I go with all convenient speed”, and one from Milton’s *Paradise Lost*: “. . . and to thy speed, add wings.” It seems that the notion of speed as quickness, and the understanding that, at least in some situations, quickness is desirable, was well – known to pre – modern people.

This conclusion is supported by the fact that the Oxford Dictionary gives us many more words for the same – or closely related – phenomena. “Swift”: “Moving far in a short time”, is supported by examples from the year 888. “Quick”: “Moving or able to move with speed”, is supported by examples from 1450. (Examples include “quick as thought” and “quick as lightening”). “Rapid”:

“Moving, or capable of moving with great speed” has examples from 1634. Things described as moving “rapidly” are planets, wheels, wings, feet, rivers. Then there is “fleet”: “Characterized by power of swift onward movement. . . . Said primarily of living beings” The word describes what is shared by an antelope and a runner.

These definitions tell us (not surprisingly) that the idea of getting from one place to another in a short time, and (depending on the situation) the advantage of this, were not unknown to ancient people. One might object that all these notions of speed are on a human scale, and only in modern times did our civilization develop the technology to violate that barrier and to carry people at inhuman speeds. For the Illich group it seems that it is the railroad that commits this Original Sin. This may be true, but it doesn’t mean that people had no *idea* of high – speed travel: people are capable of imagining things that they have no means of carrying out. We see this in the old expressions, “speed of birds”, “speed of arrows”, “speed of lightning”, “speed of thought”. “Speed of thought” presumably means arriving at your destination in the time it takes you to think about it, and so would equal or even surpass the speed of light.

Or consider this example. At the beginning of Aeschylus’ play *Agamemnon* (458 BC), King Agamemnon’s wife Clytaemestra, who is in Argos, announces that Troy has fallen to the Greeks. Asked when this happened, she responds, “It is the night, the mother of this dawn I hailed.” The chorus asks, “What kind of messenger could come in speed like this?” Clytaemestra explains that all during the ten years of the Trojan War, men have been stationed at the tops of the highest mountains between Argos and Troy, watching over pyres of firewood. When Troy fell, the first lit his fire, which was immediately visible to the next, who lit his in turn, and so on. The message traveled in the form of light, and so at the speed of light, slowed down only by the time it took to light the fires. (Aeschylus, incidentally, fought in the Battle of Marathon (490 BC), at the end of which the messenger Pheidippides made his famous run from Marathon to Athens to report the victory and fall dead from exhaustion – which gives our “marathon” both its name and its distance.)

Clearly the idea of speed as rapid motion or action, and the idea that in some circumstances rapid motion or action is to be desired, is not an invention of the industrial age.

Is Velocity New?

What, then, about speed as the rate of motion? Of course, mechanical instruments for measuring speed are modern: “speedometer” appears in the OED in 1904; there are earlier instruments mentioned such as “speed – gauge” and “speed – clock”, but nothing before 1898. Does this mean that the *concept* of a rate of motion that can be measured did not exist until these instruments were invented?

But there are at least three other words in English that mean approximately the same thing. One is “velocity”, which can either mean swiftness or rate of motion. OED quotes Hobbes (1656):

“Motion, in as much as a certain length may in a certain time be transmitted by it, is called velocity or swiftness.” But Hobbes had met with Galileo, and been influenced by his concept of motion, so probably Illich and his colleagues would consider him one of the very persons who introduced the new notion of speed into Western Civilization. Then there is “rate”: “Degree of speed in moving from one place to another. The ratio between the distance covered and the time taken to traverse it.” The first example in OED of this use is dated 1652. But this is just a few years before the Hobbes quotation given above, and is in the middle of the 17th century, the time Illich says the new concept of speed has begun to appear, so this is not strong counterevidence.

The third word, “pace”, is more interesting. “Pace” originally means, “a stretch of the leg”, hence, “a step”. One of its definitions is, “Rate of stepping; rate of progression (of a person or animal); speed in walking or running”. The first example of this use is dated 1270. From this is derived a broader definition: “Rate of movement in general . . . speed, velocity.” Here the first example is dated 1430. “Pace” can also be a verb: “To traverse with measured steps along (a path) or about (a place); hence, To measure by pacing.”

We human beings have a notion of speed, and a notion of regulating speed faster or slower, because we have legs, and know how to walk and run. We also have these notions because of our long experience with horses. Legs can be measuring devices of considerable accuracy, not only of distance but also of speed. On smooth and level ground, a strong walker (man) or pacer (horse) will take steps of equal length, and move with a rhythm as regular as that of any metronome. And one whose work it is, say, to travel on horseback or on foot back and forth between two cities, will know what pace will take him to his destination in what amount of time. The fact that devices and instruments have been invented that measure and regulate speed with even greater accuracy does not mean that measurement and regulation were unknown before then.

Is it possible that the three writers are referring to that “pressure of time” that we feel in modern society, the feeling that we must make special effort to speed up or we will be late? But OED gives us the word “hurry”: (transitive) “To carry, convey, or cause to go with excessive haste” (examples from 1592) and (intransitive) “To move or act with excited haste, or with an evident or apparent effort or speed” (with a 1590 example from Shakespeare: “Desperately he hurried through the streets.” OED also gives us “haste”: “Urgency or impetuosity of movement resulting in or tending to swiftness or rapidity”, or “Such quickness of action as excludes due consideration or reflection; hurry; precipitancy, want of deliberation, rashness”, with examples from 1300.

Is it possible that when these authors concluded that before the seventeenth century Europe had no notion of “speed” meaning “to go fast”, they were being a bit hasty?

The Metronome and Music

Nevertheless, the three authors are right that there is something importantly different about the role of “speed” in industrial/post – industrial society. While they do not, I believe, adequately express this in the analytical parts of their essays, the illustrations they give are more instructive.

First, consider again Rieger’s example of the metronome. He says he wants to use the metronome “to demonstrate how speed came into music.” But why is the metronome an example of speed? The metronome was not invented to make musicians play faster; surely its effect is to slow them down as often as to speed them up. The metronome was introduced to regularize the tempo of musical performance. As Rieger informs us, this was not the first attempt to regularize tempo. Before the metronome there was the heartbeat, and more importantly the ability of a human being who is beating a drum or playing a stringed instrument to maintain a regular rhythm: the hand and arm are just as capable of keeping a pace as the legs. In the case of dance music it might be the legs of the dancers that regulate the tempo; in the case of working songs it will be the nature of the work (I have a recording of a Pete Seeger performance in which he brings a log and an axe on stage, and sings as he chops the log in two). But in all of these cases the tempo is part of the expression of the musician, determined not only, as Rieger says, by “mood and spirit” but also by the musician’s body: arms, hands, legs, diaphragm. The tempo is made by the musician; it is “music”. The metronome expropriates that part of the music and places it under the regulation of a mechanical device. This may be useful in training musicians, and it may in some cases even “sound” better, but insofar as music is a form of expression of the musician, it is no longer, properly speaking, “music”.

Karl Marx wrote that the key to oppression in the modern factory was the replacement of the worker by the steam engine as the power source. Instead of tools in the workers’ hands, which the workers manipulate in accordance with their skill and experience, there is the assembly line that is moved by the “prime mover” (and whose speed is regulated by the manager). Productive work, when it is done with tools by skilled workers, is (like music) a form of self – expression; when its speed, and increasingly its content, come to be dominated by the machine, it ceases to be work properly speaking, and becomes the unskilled, repetitive activity that Marx called alienated labor. It is true that the assembly line was used to speed up production, but speedup is not the only issue. Fast or slow, control over the tempo of the body’s motion has been taken over by the machine. Perhaps that explains the doubts of Illich and his colleagues concerning the idea of designing for a slow society. As Rieger says, *designing* for a slow society would be “something like reducing speed on highways from 120 to 90 KPH, or music, from 98 beats per minute to 60.” The factor of regulation from the outside remains the same.

The Falcon and the Boxer

Consider Trapp's example of the falcon. What he writes is puzzling, because immediately before he tells us that the falcon's hunting technique has nothing to do with speed, he gives us a description of that technique in which the words "fast" and "slow" are used. What do "fast" and "slow" indicate, if not speed? Changing his argument slightly, he next tells us that while the falcon is capable of great speed, it does not catch its prey by overtaking it in a race, but rather by approaching it indirectly, and capturing it in a sudden burst of speed at the last moment. "In all this flying, curving and circling, the rousing and gaining altitude, the hesitating and swooping down, in all this, there simply is no place for our notion of speed," but this is not persuasive. Think of a sport like boxing. When we say Mohammed Ali had speed, we don't mean he was a fast runner, but that he was capable of quick bursts of motion. His "float like a butterfly, sting like a bee" sounds very like the falcon.

So what is Trapp trying to tell us? Reading his description of the hunting falcon, I was reminded of a morning some years ago when I was sitting high up in Tokyo's Sumitomo Building, talking with the late linguist Muro Masaru. It had snowed, and there was a park below that was crisscrossed with the tracks of people going to work. All of them were straight, as though they had been laid down by a straightedge. I commented that the tracks of wild animals never look like that; they always meander. Or rather, the only time a mouse or a rabbit would leave tracks in such a straight line would be when it is being chased. Muro pondered a while and then asked, "Then what is it that is chasing all those people?"

The Franklin Theory of Relativity

Benjamin Franklin gave us a theory of relativity that has affected our lives far more profoundly than anything produced by Alfred Einstein. When he wrote "time is money" he was not referring to time in the abstract, time measured by calendars or the passing of seasons. The time that is money is our life – time, the time of our sleeping and waking, eating and meeting with friends, working and playing. "Time is money", as Max Weber wrote in *The Protestant Ethic and the Spirit of Capitalism*, captures the essence of the work ethic. For Franklin, "money" does not mean something desired out of greed, but something the accumulation of which is a measure of virtue. The person who begins working before dawn and continues long after dark is a good person. When one is working one is not sinning. Work is self – discipline, it is asceticism, and thus has moral value. If one works long and consumes little (which is also a form of asceticism) these two virtues will take the form of accumulated money. Time *is* money means that each moment of your 24 – hour day is in principle transformable into money – if you work. And it is a characteristic of money that there is no amount of it that is "enough". Judging strictly from the value of money itself, twice as much always has twice the value, ten times as much has ten times the value and so on. In the context of human life, on the other hand, ten times as much work does not necessarily have ten times the value; there is an appropriate amount of work, beyond which it becomes self – destructive. But the

Franklin Theory of Relativity does not recognize this kind of limit; rather it introduces into our lives a principle of limitlessness (money) that operates to destroy the natural limits and rhythms of life. It tells us that any moment you are not working, transforming your time into money, is wasted. But of course this is impossible to carry out. You cannot work 24 hours a day, though there are people who kill themselves attempting to do so. Thus the corollary to Franklin's principle: "Idleness is guilt". The gap between what the work ethic demands and what we are able to achieve produces guilt, or as we put it today, "stress".

Miles/hour; Dollars/hour

The peculiar form and role of "speed" in industrial/post – industrial capitalist society is terribly complex and has many aspects. But I believe that one can begin to get a grasp of it by seeing it as standing between the two factors I mentioned, one external and one internal. Industrial life placed the tempo of our lives under the regulation of the machine. The metronome ticks everywhere. The metronome is the alarm clock, the chime at school, the train schedule, the time clock, the time – regulated wage. We use the same symbol to indicate speed (miles/hour), tempo (beats/minute), and wage (dollars/hour). The drive for speed in all things and the work ethic are connected by the dictum that *time must not be wasted*. It must not be wasted by slow trains or automobiles, it must not be wasted by inefficient production methods, it must not be wasted by idleness.

Max Weber concluded *The Protestant Ethic* with the comment that while originally the work ethic was merely an ethic, that is, something that a person was free to choose or not, industrial society transformed it into an "iron cage". To survive in this society, we all must move to the beat of the metronome. An iron cage is, of course, a prison, which perhaps explains why Illich includes a section on prisons in his essay on speed. And perhaps the above remarks can shed some light on Illich's conundrum: why is it that while all criminologists understand that the prison system is ineffective in reducing crime, none of them is persuaded by this that the system should be changed or abolished? Perhaps the prison system has deeper motivations. In a society where speed is everything, we punish criminals by preventing them from going anywhere. In a society where idleness is guilt, we punish the guilty by condemning them to a period of enforced idleness. In a society where time is money, we have criminals repay their debt to society in the form of time. (In U.S. criminal vernacular, serving a prison term is called "doing time".)