

MOVING



THE DOPPLER EFFECT

Ella Johansson

At the last page of the first book Laura Ingalls Wilder wrote on her childhood *Little house in the big woods* she is lying in bed, while her father plays "Shall Auld Acquaintance be Forgot" on his violin.

When the fiddle had stopped singing Laura called out softly, 'What are days of auld lang syne, Pa?' 'They are the days of a long time ago, Laura' Pa said 'Go to sleep, now'.

The other books on and by Ingalls Wilder depict a journey into modernity. The prairie, onto which they will set off in the next book, will be the stage for a drama about this isolated but loving and hardworking nuclear family. As we read on, this prairie landscape is filled up by railways, general stores, iron stoves, schoolhouses and printed calico. Little house in the big woods deals with another, less transparent landscape, representing Laura's early childhood, as well as the childhood memories of her parents and grandparents. The book is a retrospection into a timeless, innocent place before Fall, departure, movement and history. Not a narrative in itself, it consist of fragments representing a landscape of wilderness, kinship, traditional crafts, log houses, open fires and strange beasts, the Eden which was to be left for the West.

But Laura laid awake a little while, listening to Pa's fiddle softly playing and to the lonely sound of the wind in the Big Woods. She looked at Pa sitting on the bench by the hearth, the firelight gleam-

ing on his brown hair and beard and glistening on the honey-brown fiddle. She looked at Ma, gently rocking and knitting. She thought to herself, 'This is now.' She was glad that the cosy house, and Pa and Ma and the firelight and the music, were now. They could not be forgotten, she thought, because now is now. It can never be a long time ago.

Writing in the early 1930s, aged 65, Wilder deals with the early 1870s. But time references in the text "more than eighty years ago," indicate that the book was reedited in the early 1950s, making it one of the last things she wrote. This certainly brings out my sentimentality. As a child it thrilled me when I found out that the writer lived until 1957, one year before I was born; that our life spans almost touched each other in time. Laura's concluding statement is what Ernst Bloch would call "das Fall ins Jetzt" or "Durchbruch des Hierseins". It constitutes a sudden break through, or fall from distant fictive storytelling into the present and presence of the reader or listener. Wilder makes a reference to the memento mori "what you are, I have been, what I am, you shall be". This is not just sentimentality; there is a witty and playful cynicism in these concluding sentences. It is a sovereign commentary from beyond the grave, a final joke, addressing the vanity and naivety of our conception of time. The point is that we all, just like young Laura, uplift and celebrate the present – that limited span of time that we experience – as something more authentic than the time of lives of a long time ago.

"Now is now, it can never be days of a time long." ago. This belief is both fully correct and very wrong. This fetishization of the present is not exclusive to modernity, but a reflection of the existential condition that individuals need to make life bearable. Perhaps it is petty and unfair to make this a subject of social reflection. It sounds as if one is not generous and mature enough to grant the living, and especially the young, the feeling of importance that motivates every generation, without which social agency could hardly exist. It is very possible – but then again, how can we know? – that this experience of singular time was boosted by modernity and paradoxically, by the more historicized worldview produced by modernity and the enlightenment.

Breaking Points and New Eras

When I teach introductory classes about the concept of modernity I draw a time-line, on the board and ask the students to suggest the point where modernity began. "There are no wrong answers," I say encouragingly, and write 1000 B.C. at the beginning of the line. Then I tell them that "decisive changes have taken place at almost every period in history" and I briskly fill in the line with any point they suggest. We discuss the changes taking place at every suggested date and try to identify the various breaking points that can be connected to the grand narratives on modernity. The 1930s are usually the first and most common suggestion, justified by the foundation of the Swedish welfare state and modernism in architecture. What fascinates "old me" the most however, is that one or two students always suggest the 1970s. It is of course a correct answer, referring to the coming of post- or late modernity and the breakdown of the so-called "traditional modernity".

The same confusion about the borderline between history and the present occurs when I teach about how tradition and history shape modernity in various ways, how we can have very different kinds of modernities and how we can question the hegemony of any one kind of modernity. We can read about town life in southern Europe where women stay indoors and men hang around in groups at the café, or talk about villages in northern Sweden where

people don't knock before they enter a house, or let kinship structure their conversations. If studies of these places were printed ten or twenty years ago, they would inevitably be read, and dismissed, by students as historical studies of vanished cultures. They would miss the whole point, that there are different ways of being modern. Should I point out that these are ongoing ways of life, they will still interpret the examples as forms of life that are doomed to vanish. Whatever I say, students think they are not really cotemporal. Some things in the present are apparently impossible to grasp as aspects of the contemporary moment, and are always attributed to worlds that existed in "days of a long time ago".

The temporal breaking point is not really now, the very moment of the present, the very point where past and future are connected. The examples show that the "present" is socially constructed, that it is made up of a certain time span, perhaps a generation, or if you are young, a decade. And the singular thing about "now" is not that it is the temporal present, but that the physically experienced present is confused and intertwined with a belief in that the present era is unique. This firm conviction that one's own present is another kind of time than that experienced by all those who lived before, has consequences like millennialism, where the present is seen as the outer and final edge of history. In slightly weaker forms of historicism,1 the present is given a strong significance for the course of the future, and the edge quality produces strong norms about how present life should be led.

The uniqueness of the *now* is also an important aspect of consumption and consumerism. The sense of the uniqueness of the present allows us to believe that precisely *this* new fashion will evade and triumph over the tainted old everyday life. When the present is celebrated with everyday *carpe diem* hedonism, this probably reflects a more relative, less presentist attitude, where the celebration is colored by an insight that *this* present, in the course of time, will become as tainted as all the others.

An Effect of Being Present

How can we conceptualize the sense of uniqueness about the present, as well as the insight that all presents are eventually integrated into the enormous, continuous, homogenous past? The missing concept which can promote understanding of the densification and fetishization of the present, is the "cultural Doppler effect". This effect enables us to encapsulate the tendency to experience time as an uneven stream of action, and to look upon the past as much more than "thin" and depleted actions, events and meanings. It also allows us to look at the future as much more dense in its threats and promises.

In physics the Doppler effect (described by Christian Doppler in 1842) refers to the phenomenon that waves (electromagnetic, sound and liquid) appear either stretched or packed together when measured from a point, depending on whether the source of the waves is moving towards or away from the point from which they are being observed. Doppler developed the theory while trying to explain the variation in the colors of twin stars rotating around each other.

Doppler referred to the common experience of ocean waves in relation to moving ships, but he had trouble finding scientifically acceptable evidence to support his theory. He chose sound waves as a more convenient means of confirmation, since it was by then feasible to make a train travel the 70 kilometer per hour needed for the experiment. Yet the first experiment, in 1845, failed. The train did not manage to travel at a constant speed, and the hired trumpet players (one group on the train and three groups along the tracks) were not disciplined enough to play the right tones at the right moments.

The next century was better equipped technologically to demonstrate the Doppler effect. A good example, though slightly inaccurate, uses sound to illustrate how the effect works. If we stand in the street and an ambulance passes by, the siren pulsates at shorter intervals when it is moving towards us and at longer intervals when it is moving away from us. Furthermore – and this is properly what is meant by the Doppler effect – the frequency of the waves changes, so the sound of an approaching vehicle is a higher note, than the departing sound. In science

the effect is applied, as Christian Doppler foresaw, to measure the movements of stars, made visible as displacements of absorption lines on light spectrograms. The physical Doppler effect is, although a part of natural science, an observation that originally was linked to a human condition; an *effect* produced in subjects which are equipped with certain sensory faculties, at a certain point in time and space. I will stick to the example of the soundscape around the ambulance and use it as a metaphor for some aspects of our social being in time, change and history.

Cultural Doppler Effects

Above I have shown how the Doppler effect applies to culture, in criticism of both scholarly and emic interpretations of time. The effect leads people to treat the present, the past, and the future as if they are totally separated kinds of societies, with totally different kinds of importance and impact.

Another illustration of cultural Doppler effects is the way the speed of the first steam locomotives approaching us in the late nineteenth or early twentieth centuries appear to be much faster than the last ones to leave from the badly maintained railroad system of a late twentieth century gray eastern Europe, not to mention those sleepy museum railroads, even though the recent trains are actually much faster and technically advanced than the first ones. The relative speed of the landscapes that passed the windows of those trains is an example of a general theory of cultural relativity. I would argue that this is not just general relativity, or a Virilian analysis of speed or acceleration, but a specific application of Doppler effects produced by our relationship to an entity which is either entering or leaving; either arriving as news from the future or disappearing as leftovers towards the cultural horizon that surrounds us and encircles our presence in a more general way.

Another example of cultural Doppler processes can be seen in the introduction of television. In the 1970s people would complain about how this new technology was alienating, speeding up and depleting their lives. You would get statements like: "When television came old patterns of everyday life changed very quickly. Before people would drop by and visit

their neighbors uninvited. Nowadays this is no longer polite and everywhere people are sitting alone in front of their screens." In the 2000s, television can be discussed as a historical phenomenon, a device for creating community and slowness: "When television was introduced you would be invited to those who had a set, to sit by their dining table and eat fancy cakes while watching."

When listening to Americans getting together and getting to know each other it is striking that they often chat about old television shows from their childhood. They seem to use this conversation to create community and consensus, based in a shared history. Television has become tradition, and a stable, secure key symbol that embraces and provides the aura of a particular era.

From innovation studies we know how the Doppler effect makes historical sense of the density of a certain time span. A Swedish documentation project in the 1940s looked into "the new era coming to our local community," understood then as a study of the mechanization and industrialization of rural Sweden in the past century. People were asked about new technology or new consumers' products. When did they appear in the village and who bought them? One outcome was that everybody remembered that their own farm or household was the first in the village to buy those particular machines or home equipment that were crucial to modernity.

The study did not result in a very accurate map of the time and place where modernity arrived, but it said something important about the reception of change, of how the experience of being at the edge of time and history is processed. Surely, every daughter has heard form her mother (and every mother has told her daughter) about how *she* was always the first in town to wear spectacular new fashions. Even Laura Ingalls did this, for example when she writes about the sisters daringly adopting a hairstyle with fringe.

Sound as Metaphor

The Doppler metaphor, in the case of the ambulance's siren, shows us that the relativity of time is hard to integrate with social theories that stress the importance of rational agency, or of reflexive subjects planning for the future. Instead we get this confused figure on a sidewalk, trying to look civil and composed in spite of all the sensory impressions the ambulance produces. The dopplered ambulance is a social metaphor which does emphasize and explain the heightened experience of presence and life which pervades the observer's viewpoint.

Our observer on the sidewalk may be worried about what is happening, what made somebody need an ambulance, but is no doubt feeling slightly content about being out in the street instead of inside the ambulance. The siren metaphor also tells us that the observer's feeling of alarm is imaginary. It contradicts any idea of the uniqueness of the present. The siren is alarming and potentially disastrous (and it probably is for the passenger in the ambulance²). Yet those disturbed by the dopplering ambulance will then carry on with their lives as before.

Metaphors are often visual. The concepts "image" and "picture" are even used as synonyms for "metaphor". Thinking in terms of sound and soundscapes could be a productive way of creating metaphors for time and temporal processes, especially for the experiences and subjective aspects of time. First, sound has no stability in time. It is not possible to "keep" or maintain sound as a thing or a visual object. Second, we are easily influenced by, or vulnerable to sounds. It is difficult to escape from, defend oneself from, or objectify a sound.

Sound is a good metaphor for time experiences because it does not have an immediate extension in space. The act of listening to sounds places us in the dimension of time. The Doppler effect, however, shows us that there are other spatial dimensions. There is a place, a moving point, which locates the listener. These other dimensions are usually unintelligible or misinterpreted by social scientists. The Doppler sound, a siren, or the sound from cars passing by on a highway, is therefore also a good metaphor for presence in the present. This feeling of presence involves the phenomenological aspect of "being there" as well as socio-psychological aspect of either discontent (the alarmist attitude to events which are close in time) or enchantment (putting hope in the present as a decisive moment).

An indication that Doppler effects have a subconscious significance in the culture of late modernity is the prevalent use of American police sirens in films and other sound media and the excitement they produce. These sirens' tones heighten the importance of the present. Important things are at stake, and the outcome of the moment is uncertain. American sirens are audible icons of speed, excitement, metropolitan ambience and also of presence, of things happening *now*, of *now* being a decisive moment for an otherwise arbitrary future. The efficiency of this sound makes the Doppler effect completely tangible. This perception is strengthened by a trick that improves the effect.

The sound American sirens really make is not constant, so it is itself imitating the Doppler effect. They have a simulacra of the effect built into each pulse. The heightening of the tone in the singular pulses can be compared to the hectic and threatening sound of passing cars, if one stands close to a highway.

Presentism

One popular explanation why trains become slower, social relations are diminished, and innovations get less exciting over the years, is that time is going relatively quicker, or that events and innovations happen more frequently. Time is said to be more densely packed with action, thus feeling faster, so people are accordingly getting blasé and harder to impress or stimulate. The chapter on "slow motion" in this volume has several good examples of ways that contemporary life can be represented as a problem of increased speed and density. The Doppler effect shows that this escalation is not necessarily inevitable. It might be an illusion caused by a belief in the uniqueness of the present. The Doppler effect also explains how we can continue to be shaken up by important news, as well as why we so quickly forget our reactions, so that we are soon ready again to declare that nothing can really impress and shake up people who live now.

The everyday forms of this *presentism* are not the only ones molded by the Doppler effect. Presentism in social theory used to be about the uniqueness of the era expressed with figures about the density of social conflicts, the pace of technological progress,

the amount of discontent and alienation. In post-modern and post-structuralist theory this density has accelerated even more, and has become the focus for many social theories. We read that we live under "conditions of post-modernity" which increase the density of everything, the speed of time itself.³ The uniqueness of the present gets, in this urge to catch up with and explain the contemporary, represented as an implosion and a collapse of time and history, the death of history.

The cultural Doppler effect is a process that positively addresses the important, but difficult, project of analyzing the past and the present on equal terms, using the same methods and based on the same ethics. This task is at the core of the important contributions European ethnology and anthropology can make to complex societies. These disciplines have a role to balance other, less comparative, branches of the social sciences, and above all to contradict the many forms of cultural critique which are dedicated to "contemporalism", to the fetishization of the present present.

Notes

- 1 Historicism in the sense Sir Karl Popper uses it.
- 2 As a contrasting statement to the point of the Doppler metaphor for how time is experienced, one might add Walter Benjamin's text on the Angelus Novus, which points out the weight of the past. He states that all of history, which the backward looking angel of history looks upon, is an enormous tragedy, which piles "wreckage upon wreckage".
- 3 Above all in the writings of Paul Virilio.

References

Benjamin, Walter 2003: *Selected Writings*, Vol. 4: 1938–1940. Cambridge: Harvard University Press, p. 392–393.

Bloch, Ernst 1969: *Spuren*. Gesamtausgabe Bd. 1. Frankfurt am Main: Suhrkamp, p. 98.

Donald, Merlin 1991: The Origin of the Modern Mind: Three Stages in the Evolution of Culture and Cognition. Harvard University Press.

Popper, Karl 1957: *The Poverty of Historicism*. London: Routledge.

Schneider, Reto U. 2004: Das Buch der verrückten Experimente. München: Bertelsmann, p. 43–47.

Virilio, Paul 1986: Speed and Politics: An Essay on Dromology. New York: Semiotext(e).

Virilio, Paul 1997: Open sky. London: Verso.