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THE LOGICS OF ANTI-EFFICIENCY – ON THE NEED OF TECHNOLOGICAL »TRANSLATIONS«

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Abstract

In modern society and economy the principle of efficiency is omnipresent. Even in the discourse of sustainability – which, in many aspects, represents a challenge to modern visions of progress and Western »way of life« – resource and energy efficiency are seen as crucial factors. However, »instrumental reason«, which is underlying efficiency, has not only been criticized by the Frankfurt school (see Horkheimer, 2013 [1947]). There is a long tradition, which ranges from Rousseau (2019 [1750]) to Bataille (1985), which questions the models of progress coupled so closely with efficiency. Today, »commercialization« (see e.g. Hochschild, 2003) and »economization« (see e.g. Murphy, 2016) are prominent lines of discourse which do express similar objections to the efficiency principle. What is more, recent phenomenons of (pandemic) crisis demonstrate that following the path of efficiency may lead to paradoxical effects, in that the ability of the health system to cope with stress was especially poor in the most efficient ones (like in Italy): efficiency thus proofed to be very inefficient in pandemic times (see e.g. Popic, 2020). Likewise, in the past, the effectiveness of the critique of efficiency

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has been very limited. One of the reasons for this disproportion could be that the voices of critique (of efficiency) were unable to manifest in technology which is a major driving force of modern society and economy. Accordingly, the logics of anti-efficiency – i.e. logics of relationship, emotion, innovation, etc. – must not only be formulated theoretically but »translated« into technology in order to become effective.

Keywords: *Efficiency, Anti-Efficiency, Economization, Instrumental Reason, Technology, Technological Translation.*

1. THE NEED FOR ALTERNATIVE CONCEPTS (AND PRACTIES)

I want to start with a quite instructive quote from a recent interview with consultant Burkhard Schwenker, the former CEO of Roland Berger:

> »So, we are just seeing that efficiency has been completely overestimated. The whole economy was geared towards tightest supply chains: everything just in time, as short-term as possible. It would have made sense to invest much more in storage capacity […]
>
> The current situation shows that it is not about having learned something, it is about learning how to think. Only that will bring you forward. We asked Roland Berger's German-speaking alumni how business administration should develop, towards more practice or more theory. Do you know what the clear majority answered? More theory! « (Burkhard Schwenker in Lübke, 2020 [own translation])

Two things are striking about this quote: 1. the questioning of the efficiency principle from a consultant who in the past played a leading role in the maximization of efficiency, 2. the expressed preference of theory over practice by practicians. At least the first element becomes explicable in regard of the context in which the statement was made: the current pandemic crises (see also section 4) – which seems to have triggered some »cathartic« turns.

What is more, it is well possible that the turn of Schwenker appears to be more blatant than it actually is (meant): He just addresses the often-paradoxical effects of efficiency (see section 3), especially when applied with short time horizons in mind, and does not fundamentally question the efficiency principle. The concept of anti-efficiency, which I will outline here (see section 6), is a more radical approach.

As it seems, the circumstances are, however, in favour of such an effort which will not stop at the critique of instrumental reason (see section 5), but seeks to »sublate« efficiency and to »translate« anti-efficiency into technologies and practices (see section 7). I thus definitely would agree with Schwenker (and the Roland Berger alumni): yes, we need more (alternative) theory. But I would like to add: we also need alternative practices. In order to get there, we, however, must first look into what efficiency actually means and how it became the fetish that it is.

2. EFFICIENCY AS THE FETISH OF ECONOMIZATION

No area of life is excluded from the omnipresent rule of efficiency (see the numerous examples in Kleinmann, 2009). Our time seems obsessed with efficiency. A major driving force

behind this development was the mechanical clock, which not only made the measurement of time much more accurate, but which – since the invention of pocket watches – could also be carried around everywhere as an instrument of timekeeping. This had great influence on both business and private life. Hardly any other object has so persistently shaped the culture of modernity as the watch (see also Landes, 1983). And the more precisely time could be measured, the more efficiently it had to be used. Anything else would ultimately mean a »waste of time«, and to waste is a »sin« – for the early modern Puritan as well as for the modern capitalist. Modern life is thus under the (moral) rule of the clock. In addition, the complexity of modern (big-city) life would hardly be manageable without strict time management (see Simmel, 1903). Even in the age of digitization little has changed in this regard. To the contrary, the possibilities of global synchronization and the (customer) expectation of the availability of services »24/7« have made time regimes even stricter (see Anton, 2009). The discipline of timeliness was not only inscribed into the bodies (see Foucault, 1977 [1975]), but with the increasing social acceleration (see also Virilio, 1986 [1977]), speed, in which the dimensions of time and space meet, becomes a condition of social »functioning«.

This rush of speed, driven by efficiency thinking, even manifests in such rather mundane areas as food consumption and dominates our basic human needs. Accordingly, fast food is still a growing market. Food that can be prepared and consumed ever more quickly is the expression of a globally established culture of efficiency. It is true that global food chains have partially adapted their offerings to local markets, for example by serving kosher food in Israel (see Maynard, 2009). However, the organizational principles aimed at speed and efficiency are the same everywhere. And certain products, such as wraps – that can be eaten with one hand only – are even penetrating markets like Japan, which are otherwise rather critical of »foreign« food products. After all, such foods not only save preparation time but allow other activities to be carried out while eating. This efficiency advantage was explicitly advertised by the supplier of the wraps: »McWrap, newly introduced at McDonald's, is the one-hand-style food item you can bite into with just one hand [...] your other hand is completely free.« (Quoted after ibid.)

Because the entire world is increasingly operating along the lines of the big fast-food chains, George Ritzer (1993) called this process »McDonaldization«. The rationalization of the world, which is still in progress, is no longer oriented to the bureaucratic-legal model, as Max Weber (1922) once postulated, but to the efficiency logics of the fast food restaurants. And even if there is probably a confusion here between cause and effect and between the general and the

particular: it seems evident that the logics of efficiency has become the determining factor. The only questions left are: Why so? And who pockets the immense gains of efficiency driven rationalization? – Well, we may assume that it is mostly the same people (for the same profane reasons) who are generally pocketing the profits: the economic ruling class. The more apt terms for the increasing dominance of efficiency logics might thus be »commercialization« (see e.g. Hochschild, 2003) and »economization« (see e.g. Murphy, 2016). And the model of the *homo oeconomicus*, originally recognized by John Stuart Mill (1844: 144) as a potential problem of political economy, has long since become the universally valid image of man. In consequence, Jürgen Habermas and Jean-François Lyotard could already in the 1980s deplore a »colonization of lifeworld« (Habermas, 1981) and the dominance of economic discourse (see Lyotard, 1988 [1983]).

From a neoliberal perspective, however, such »marketization« is expected to have positive effects: cost reductions, quality improvements, and innovations (see e.g. the contributions in Le Grand and Bartlett, 1993). As far as efficiency is concerned, a distinction is made between productive efficiency – i.e. either minimizing input at a given output (input efficiency) or maximizing output at a given input (output efficiency) – and allocative efficiency, which refers to the optimal use of resources to satisfy demands (see e.g. Duda, 1987: 47f.). Closely related to allocative efficiency are distributive and Pareto efficiency/optimality, which, however, also includes welfare economic considerations. A distribution of resources is Pareto-optimal only if any change would be accompanied by a deterioration at least for parts of the whole group (see Pareto, 2014 [1906]: 179 [Chapter VI-33]).

Huerta De Soto (2020) sets a dynamic efficiency concept against the »static« understanding of efficiency in welfare economics, which is shaped by the idea of Pareto optimum. Not only does Huerta De Soto believe that value judgments are implied in welfare economic thinking. He also criticizes the fact that Pareto optimality presupposes that all factors and resources are known and unchangeable (see ibid.: 29). »The theory of dynamic efficiency, on the other hand, is not so much about avoiding the waste of known and ›given‹ resources [...], but rather about the continuous discovery and creation of new goals and means.« (Ibid.: 33 [own translation]) However, this view obviously also implies value judgments and, quite openly, the entrepreneur is heroized: driven by competition, he/she never rests and thus keeps going a process of creation and knowledge expansion (see ibid.: 31ff.).

What this neoliberal view does not take into account are power structures that can never be separated from issues of allocative and distributive efficiency (see also Duda: op. cit.: 59ff.). The question of power is just as readily faded out by systems theorists who associate economization with an increase in options (see e.g., Nassehi, 2012) – just as neoliberals do. Systems theorists would, however, assert that the created increase of options – due to a lack of »self-restraint« – can become quite problematic (see ibid.: 411ff.). Nonetheless, the »encroachments« and the spread of the economic »code« remain a purely semantic question for them. And some second-order observers (also outside of systems theory) even assert that economization can be read reversely in that »foreign« semantics are increasingly penetrating the field of economics (see e.g., Priddat, 2013: 432).

In order to deconstruct the (potentially fatal) logics of efficiency that underlies economization, one must therefore fall back to other »intellectual resources«. A suitable starting point is the fetish concept, as developed by Marx (1962 [1867]) in his major work »Das Kapital«: In the believe system of certain religious cults things are attributed a life of their own and supernatural powers (which, however, in reality only arise from that very imagination). Much in the same way we tend to understand the value of goods not as resulting from the social and economic conditions, but regard it to be their »natural« property (See ibid.: 85ff.). For Marx, this fetish character of the commodity is an essential element of (market-based) capitalism.

The term »fetish« itself is derived from the Portuguese »feitiço«, which means »spell«. This refers to the original colonial context of use – as a (derogatory) term for object-related cults of »foreign«, non-European cultures. Today, however, »fetish« has a much broader meaning – also as a (pop)cultural phenomenon. Numerous novels and films are dedicated to fetish sexuality, and the fetish scene celebrates its sexual obsessions at events such as fairs and parties. There is even a flourishing trade in fetish objects such as latex clothing or worn shoes and underwear. So, one might note: In modern capitalism the fetish itself becomes a commodity. Accordingly, Hartmut Böhme (2006) comes to the conclusion that fetishism (as materialism and consumerism) is not only latent in the culture of modernity, but modernity has universalized fetishism.

In my opinion, behind this »globalization« of commodity fetishism, there are not only hard economic interests at work, but there is also a magical (objectifying) thinking that has

become entangled in the cult of efficiency (see also Jain, 2019). The logics of efficiency represents an immaterial fetish, so to speak. But why not simply call the fetish of efficiency an »ideology« then? – That would be too simple and miss the quite material core of this cult which manifests in very concrete things such as the above-mentioned clocks (or their current equivalents: cell phones) calling us to use time efficiently. A superordinate level of this materialization are technologies in which the principles of efficiency get incorporated and solidify. These technologies structure and determine not only the »large systems« and our »lifeworld«, but also the framework in which change is possible. If, for example, a transport technology is designed for speed (and thus efficient time-space use), possibilities of slowness and ease disappears. What is more, the logics of efficiency requires measurability: everything must be expressible in numbers. These numbers suggest concreteness, but are in fact (like every number) only abstract entities creating an objectivity illusion which reifies the logics of efficiency. That which cannot be expressed in numbers not only is of no value but disappears from the horizon of perception. Through this reification, the logics of efficiency becomes a limiting reality that objectively and materially blocks the way for other, alternative principles and solutions.

Thus, calling efficiency (logics) a fetish is not only a reference to the obsession with efficiency of modern economy and society but also points to a main self-deception of the advocates of efficiency: that increasing efficiency is the only possible way. Huerta De Soto's reasoning is a typical example of such self-deception. He claims that efficiency – not play nor pleasure – drives creativity. Efficiency is thus attributed a power it does not possess: to change things. In fact, pursuing its logic tends to produce the exact opposite: that things remain as they are. Moreover, a one-sided, blind pursuit of the logics of efficiency is not even efficient along the lines of its own understanding, but may create paradoxical phenomena.

3. THE PARADOXES OF THE LOGICS OF EFFICIENCY AND CONTROL

In order to illustrate the paradoxical effects of the logics of efficiency, I will first take a closer look at the example of »scientific management«, introduced by the engineer Frederick Winslow Taylor (1856–1915) in early 20th century. Taylor (1919 [1911]: 16) criticized the inefficiency of previous business practice, which was based on »rules of thumb« rather than measurement. And he believed that there is *one* best practice for the performance of any task (see ibid.: 25). Taylor’s approach in determining this best practice consisted of breaking down

the work process into the smallest possible steps and systematically optimizing each of them. This went as far as to standardize the movements of workers and to set rigid time limits which were checked by using stopwatches (see ibid.).

Of course, Taylor was aware that workers also needed to be offered incentives (such as performance bonuses or reductions in working hours) to make them comply to this strict system. He gives the example of a bicycle factory, where scientific management succeeded in increasing output while at the same time working hours could be cut (see ibid.: 86ff.). Does that mean that the increase in work efficiency was »profitable« for both sides, employers and employees? – Taylor's studies in scientific management only covered a very short period of time. On the employees' side, the »returns« were hardly sustainable – because a higher workload always means negative health consequences (see also Landsberg et al., 1999). The »additional costs« of efficiency improvements were passed on to the workers and society. Moreover, Taylor's method can only be applied to relatively simple, »decomposable« activities. Its relevance to advanced economies is thus limited. And even at the time of Taylor there was considerable resistance, especially from trade unions. Strikes against the rapidly growing popularity of scientific management in state-owned enterprises led to an investigation commissioned by the American Congress and headed by Robert Franklin Hoxie. The so-called »Hoxie Report«, which summarizes the results, lists a large number of points of criticism. The use of stopwatches and performance bonuses was even banned in American factories from 1915 onward because they encouraged overwork, as the report had revealed (see Jehle, 2009: 85ff.). Interestingly, however, the commission also concluded that industrial democracy is threatened by scientific management as it undermines mutual solidarity and increases existing power imbalances between employers and workers (see ibid.: 106f.). In fact, this rather socio-political point was one of the main motivations of trade union to protest against scientific management.

In the effort to increase efficiency, it is all too easy to lose sight of secondary consequences that may have a negative impact on efficiency (such as health consequences). But it is even easier to forget that any measure depends on (social) acceptance in order to be effective (see e.g., Evans, 1994). The effectiveness of a narrowed focus on efficiency is therefore very limited. This insight has become increasingly accepted in business practice since the 1960s/1970s at the latest (see the contributions in Kleinöder et al., 2019). As a result, approaches such as teamwork, which emphasizes personal responsibility and self-organization, came to the fore (see, for example, Sandberg, 1982). However, these concepts are not

unproblematic either. They lead to a »subjectivation of labor« (Moldaschl and Voß, 2002) in which a transformation of external constraints into self-constraints occurs – as one could phase it in reference to Elias' (1939) civilization theory. In the end, the new approaches are equally focussed on increasing productivity, and there is no actual increase in autonomy, but rather a shifting of control towards the subject, which, at the same time, is understood as a »valuable« resource (see e.g., Becker, 1964). The world of work is more and more characterized by a parallel economization of »inner life« and an exaggerated compulsion to affective control (see also Penz and Sauer, 2016: 133ff.). This contradiction gives rise to a variety of burdens (see, for example, Badura and Steinke, 2012), which may even end in »burnout« (see Keupp and Dill, 2010).

But it does not stop there. The attempt to achieve more control is not limited to the level of the subject, but encompasses the entire society. Michael Power (1994a) coined the term »audit society« for this phenomenon. In the course of the popularization of new public management, in which public administration is more and more oriented towards market-economy efficiency, an »audit explosion« occurred (see also Power, 1994b). However, the introduced audit systems not only lack democratic legitimacy but generate certainties that are often illusory (see Power, 1999: 122ff.). Even in economy itself management control systems may lead to a mere fiction of control as some things are difficult or impossible to put into figures. Companies have tried to counteract this shortcoming by the introduction of »balanced scorecards«, which seek to encompass also non-monetary factors (see Kaplan and Norton, 1992).

Empirical experience shows that the instrument of balanced scorecards has had only a very limited effect. In many companies which implemented balanced scorecards, short time after introduction, they lead a largely unnoticed »shadowy existence« (see Jain et al., 2016: 183). But precisely because such instruments are doomed to fail for the very reason that they attempt for the impossible, they are all the stronger the expression of the belief that everything can be quantified and controlled. This results in a control paradox: the false belief in ascertainability prevents the consideration of certain non-quantifiable aspects (such as trust or satisfaction). On the other hand, actual control (of these factors) is not necessary at all, since the principle of control (by means of figures) itself is not questioned by its failure. Even the wrong number provides legitimacy and helps to disguise the exercise of power. The efficiency of the society of control (see also Deleuze, 1992 [1990]) is in fact based on the depersonalization

of power and its self-reproduction within the social system, which is increasingly aligned to economic logics. For this reason, (critical) systems theorists may point to the many dysfunctional aspects of economization (see e.g., Schimank and Volkmann, 2008) without being aware of the *necessity* of the contradiction between the (economic) effectiveness of the system and the (political) effectiveness of control. Efficiency based control systems rather undermine than increase real control. In return, however, control is highly effective in increasing itself.

4. THE CRISIS OF EFFICIENCY: SOME INSIGHTS IN REGARD OF THE CURRENT EPIDEMIC

It is believed that the opportunities that are related to situations of crisis stem precisely from the fact that crisis reveals problems and contradictions that are otherwise hidden – so that one is able to turn them »cathartically«. If that were true we are currently – at a time when the world has switched to epidemic crisis mode – in a »privileged« position of realization. In fact, at least rhetorically, a certain change of direction (against further economization) can be spotted these days, especially in regard of health care. For example, only recently, a study of the Bertelsmann Foundation advocated the closure of more than half of Germany's hospitals in order to make the remaining ones more efficient and improve quality (see Loos et al, 2019). This suggestion received widespread approval from German health policymakers (see Ärzteblatt, 2019). The same experts now praise the (over-)capacity of the German health care system (see Kunkel, 2020) – since the most efficient ones (such as Italy's) quickly proved to be overstretched in the corona crisis for lacking sufficient reserve beds (see Popic, 2020). The »wasteful« use of resources appears to be a favourable factor for the resilience of systems.

In this light one must regard the failure of complete economization of health services in Germany as a lucky circumstance. But, on the other hand, it makes it more difficult to recognize its problems which are rooted in past developments: In general, over time, the German health care system has indeed already become more and more oriented towards economic principles. The process just is not yet fully completed. After the establishment of a welfare state health care system in the 1950s to the 1970s, from the 1980s onwards economization evolved with high pace: from budget ceilings, to case-based flat rates and managed care, which means nothing other than that hospitals and nursing homes are managed according to economic principles and compete with each other (see Molzberger, 2020: 4): »Hospital physicians and nursing staff have

witnessed the advent of a new type of management which is aimed at pushing medical services towards DRG [diagnosis related group] products based on efficiency and profitability [...]« (ibid.: 197 [own translation]) This in fact means an »economic trivialization« (ibid.: 206) of the medical profession – because complex medical considerations are often reduced to cost issues. And, of course, this trivialization is not free of paradoxes either, because a hip operation generating high costs is (if fitting into the hospital budget structure) sometimes easier to obtain (from the national health insurance) than prophylactic movement therapy.

The increasing economization affects all levels of the health care system: the institutional arrangements, the organizations and the actors (see Mohan, 2019: 267). At the latter level, it manifests in an enlarged mutual distance undermining the care principle. Nurses and medical staff are ever more under time pressure and forced to view patients primarily from an economic perspective, for example, generating higher returns by putting people into higher care levels. If care professionals still want to adhere to the principle of care, to a certain extent, they are forced to ignore the guidelines by spending more time on patient interaction than scheduled (see ibid.: 291ff.).

As a reaction to this kind of problems, some approaches in clinical economics attempt to also describe the non-monetary value of health care services in order to counter the efficiency fixation of managed care. However, with these efforts it is a bit similar to the case of balanced scorecards: they a) have little impact in practice (i.e., their results are largely ignored in decision-making), and they b) remain within the logics of economy by trying to evaluate non-monetary factors economically. Moreover, this evaluation naturally can only be done retrospectively, i.e., it records (and thus stabilizes) what is, instead of actively opening the space for alternatives. The retrospective and economizing adoption of other logics is also characteristic of the current crisis situation. Many voices simply suggest as a (universal) remedy that more money should be made available to the health care system (see BR24, 2020) or that nursing staff should be better paid (see kma Online, 2020).

One possible reason for this paradox (of countering economization by means of better financial support) could be that in many cases not only an economistic way of thinking but also a functionalist view of the problem dominates. In systems theory, which is becoming more and more widespread even in everyday discourse, the functional differentiation of social sub-systems is assumed. These are considered to be grounded on different »system logics«. In its

constructivist variant it postulates that the setting of a semantic difference (as a binary code) is even constitutive for all (sub-)systems (see Luhmann, 1980). The health system is (»autopoietically«) created by referring to the distinction between »healthy« and »ill« (see Bauch, 1996). This is the binary logic on which it is operating and there is only a structural coupling with other sub-systems (see in this regard also Luhmann, 1997: 100f.).

One strain of criticism of the economization of (not only) the health system is fed by a – misunderstood – systems theory perspective. The spread of the economic code is interpreted as a »hostile takeover« here (see Schimank, 2006). I am calling it a misunderstood systems theory perspective because a »hostile takeover« can essentially not exist according to its constructivist approach: Where the distinction between »healthy« and »ill« is applied, we are talking about the health system. Where the distinction between »to have« and »not to have« is applied, we are talking about the economic system. At best, therefore, a »true« systems theorist is able to identify a quantitative shift towards the economic system. However, even outside system-theoretical constructivism, one is often drawn to the idea that social sub-systems are separable from one another and each one follows its own logic. In the end, this is the only way that the idea of economization as a hostile takeover or the hope for a better functioning of the health system through better funding makes sense.

This idea of a specific logic (that simply must be followed) »naturalizes« the assumed separations. In regard of the example of the health system it means that health represents a value »for-itself« and »in-itself«. However, this view ignores the fact that health (or what we understand by it) is the result of a historical process in which a certain conception of medicine was enforced. The discovery of health, as opposed to illness, and the construction of the social machines of its »production« were accompanied by a certain image of the human being and how he/she has to fit into the framework of society (and the production of goods). Michel Foucault, for instance, shows with the example of the *»Birth of the Clinic«* (1973 [1963]) in the 18th to 19th century that the view on illness radically changed during this period. Not only did the hospital patients become segregated, but medicine tried to classify diseases and to restore health through scientifically supported therapies. All that was, however, not only about therapy but also about gaining power over the bodies and ensuring their functioning (see also Schäfer, 1981).

Health and its system (as well as all other sub-systems) cannot be meaningfully viewed in isolation from other social processes and their (power) structures, nor can it be viewed in isolation from the subject in which these structures are interlocked. Accordingly, very different logics are »inscribed« into the subjects. These logics can get in conflict with each other and with subjective desire. The current crisis is also the result of such conflict where the »dispositifs« of health and freedom, and likewise of health and prosperity, are clashing. It can currently be observed that health discourse has become »inflationary« and dominates, i.e., pushes back, other discourses (such as the discourse of basic rights). In the course of this process, health is experiencing a semantic charge, too. Its meaning »enriches«, it becomes the central point of reference for »one's own life« and political action. In the name of health, therefore, we accept immense economic »collateral damage«. And, yet, as the foundation of this »proliferation« of the health discourse, there is still the logics of economy at work – not only by promising »healing« through the use of capital, but also in that its principles, such as efficiency, are determining crisis management. Or, to put it in terms of systems theory: at the core of the current crisis is the misuse of economical semantics in the context of the health system (which means nothing else than that the health system becomes part of the economic system) which is mirrored by the misuse of health semantics in all other sub-systems (which means that the sub-system of health »mutates« into a social system differentiated according to the category of »survival«).

So, what can we learn from this crisis? – The (»systematic«) separation of logics creates the danger that some logics may take a life on their own, become dominant and limit and suppress other logics. In order to counter this, one would have to recognize that all logics are valid (even the logics of efficiency in the context of health). At the same time, no logic may claim higher significance than other logics which obviously includes the possibility of a conflict of logics. It would be our task to not only let the contra-dictions articulate but to unfold. Yet, before this can be tackled, it should be understood what distinguishes such an approach of »anti-efficiency« from the (mere) critique of instrumental reason.

5. PRELUDE: THE INSTRUMENTAL REASON OF MODERNIZATION

In *»Dialectic of Enlightenment«* (Horkheimer and Adorno, 1972 [1944]) and *»Eclipse of Reason«* (Horkheimer, 2013 [1947]), a radical critique of the Enlightenment and technological progress is made. In contrast to cultural criticism of the past (see e.g., Rousseau, 2019 [1750]),

the theorists of the »Frankfurt School« came to the conclusion that the modernization of society under the sign of instrumental reason is a path that will finally lead to (self-)annihilation. Max Horkheimer (2013 [1947]) characterized instrumental reason as subjectivistic on the one hand and objectifying on the other, as it refrains from any particularity. But foremost, in the age of instrumental reason, it is true that: »There is no reasonable aim as such, and to discuss the superiority of one aim over another in terms of reason becomes meaningless." (Ibid.: 3) Instrumental reason is empty of any content, purely formal and, therefore, it can easily be used for purposes of domination, instead of offering points of reference (for opposition): »Reason has become an instrument which is completely harnessed to the social process. Its operational value, its role in the domination of men and nature, has been made the sole criterion." (Ibid.: 30) As a result, a coalition between economic interests, technocratic rule, and positivistic science emerged (see ibid.: 63ff.), which makes it appear as if the current economic and social structures correlated to a natural order (see ibid.: 65ff.).

The »tradition« of the critique of instrumental reason is continued by Jürgen Habermas (1981: Vol. 2) in the form of a critique of functionalist reason. Habermas in particular points to the conflict between system and lifeworld, which became acute in the course of the spread of functionalism (see also back to section 1). According to Habermas, this conflict can only be resolved through communicative action which enables a discourse free of domination (see op cit.). But the concept of instrumental reason is also taken up outside the context of the »Frankfurt School«. From the perspective of philosophical anthropology, Michael Landmann (1975), for example, points out that the critique of instrumental reason does not equal irrationalism. This view is based on a false confrontation. The critique of instrumental reason just defends other, non-objectifying forms of reason (see ibid.: 24f.). These »alternative« forms of reason give expression to (often suppressed) moments such as creativity and spontaneity (see ibid.: 31ff.) and thus offer the possibility of overcoming alienation (see ibid.: 234ff.). The sociological criticism of the model of the *homo oeconomicus* (which, so to speak, represents the anthropological equivalent to instrumental reason) points to a similar direction by clarifying that allegedly irrational action patterns often indeed turn out to be quite reasonable, especially in situations of uncertainty (see e.g., Beckert, 1997: 25ff. and 403ff.). However, there are also completely soft-washed and depoliticized takes on the phenomenon of instrumental reason (see e.g., the contributions in Halbig and Henning, 2012), which show that the concept has long since arrived in the mainstream.

What, however, unites almost all continuations of the critique of instrumental reason is the weakening of its radicality which is both the strength and the weakness of the original approach of Horkheimer and Adorno.Especially in the *»Dialectic of Enlightenment«* they show how reason, no more being »objective« and therefore reduced to a pure means, becomes unreasonable and no longer offers any »anchors« (see. op. cit.: 3) so that it can be placed in the service of inhuman destruction (see ibid.: 5). The crucial argument of Horkheimer and Adorno, however, is the combination of instrumental reason with economic interests (see ibid.: 4). Accordingly, the critique of instrumental reason originally not only means a rejection of the dominance of economic logics (and the efficiency principle), but any kind of instrumentality (not only of reason) is dismissed. This twofold rejection arises from the observed historical coincidence of the enforcement of instrumental reason and the evolvement of capitalist economy which results in a perception of inescapability.

Modernization, however, has always been an inherently contradictory process, oscillating between reflexive and deflexive elements (see also Jain, 2000), and it does not follow a straight line. Rather, linearity and unambiguity had to be established by force. The concept of anti-efficiency, which will be explained in more detail in the following, is therefore only to a certain extent in the line of the tradition of the critique of instrumental reason. And a loss of »objective« reason is explicitly not regretted within the concept. Nor is the relevance of the economic logics of efficiency completely denied. Rather, the attempt is made to dialectically »sublate« it (see section 6). And, finally, a harmony between instrumental (efficiency) logics and technical means is not presumed from the outset, but rather it is proposed to view the instruments of technology also as possible means of change (see section 7).

6. POTENTIAL »ANTIDOTES«: THE DIALECTICAL »SUBLATION« OF EFFICIENCY BY THE APPLICATION OF ANTI-EFFICIENCY LOGICS

In ancient understanding dialectics was still primarily an art of dialogue: in speech and counter-speech, question and answer, pseudo-knowledge was to be »deconstructed« (see Plato, 1991a [ca. 390 BCE]: 390c as well as 1991b [ca. 375 BCE]: 533c-d). The great dialectician of modern times is Georg Wilhelm Friedrich Hegel. In his *»Phenomenology of Spirit«* he conceives of dialectics as an immediate way of experience, which arises in the movement of mind: In (dialectical) reflection, the objects of thought are »grasped« by making them – through (determinate) negation – a self-absorbing object of thought. The resulting new »synthetic«

object »contains the nothingness of the first, it is what experience has made it« (Hegel, 1977 [1807]: 55 [no. 86]). This moment of »sublation« (Aufhebung) is preserved in Marx' materialistic understanding of dialectics (see Marx, 1968 [1844]). And it is also an important element in the concept of anti-efficiency, which will be outlined here in its basic features. In concrete terms, this means that anti-efficiency logics not only potentially oppose the logics of efficiency, but that in the moment of »opposition« efficiency logics are (positively) included. Without the »object« of efficiency, anti-efficiency is not conceivable (and realizable) either. In this sense of an oppositional and at the same time »conservative« containment, anti-efficiency does not mean a mere counterposition, but includes the attempt to dialectically suspend efficiency – in order to overcome an economic narrowing of its object(ive)s. Anti-efficiency is thus primarily about anti-*efficiency* and less about *anti*-efficiency (and definitely different from inefficiency).

However, unlike in classical Hegelian dialectics, the sublation of efficiency through anti-efficiency does not mean a simple synthesis. This is also expressed in the term »anti-efficiency«. The contradictions (of different logics) are not synthesized (in order to disappear), but, on the contrary, should be enabled to unfold and to articulate. Approaches of an »open« dialectics, which is understood as a permanent movement of (re)search, point in a similar direction (see Wellmer, 1993: 109). The logics of anti-efficiency are, accordingly, not a (static) expression of objective reason, but the contingent and reflexive manifestation of the idea of equality of different (potentially contradictory) logics. As in all »equality issues«, the negotiation processes in the context of anti-efficiency are not always free of conflict. Therefore, two modes of anti-efficiency can be distinguished:

In the *harmonic mode* of anti-efficiency, efficiency and anti-efficiency logics complement each other. The use of anti-efficiency logics can even lead here to an indirect increase in efficiency or to the avoidance of efficiency paradoxes. This is achieved by the fact that the different logics complement and intensify each other by »resonance«. Anti-efficiency logics can count on general acceptance in these cases and are relatively easy to communicate to representatives of efficiency logics. The improvement of work quality (efficiency logics) through better team relations (anti-efficiency logics of social relations and individual affections) is a good example for that. From the perspective of efficiency logics, the »benefit« of the anti-efficiency logics exceeds the »cost« of their application.

In the *dissonant mode* of anti-efficiency, there is indeed a conflict of logics especially with respect to efficiency logics, but possibly also by contradictory anti-efficiency logics. It may be the case that one or more anti-efficiency logics undermine efficiency logics, or, that anti-efficiency logics get into conflict with each other (see also again Lyotard, 1988 [1983]). The latter is, of course, also possible in addition to the first case, which increases the complexity of the necessary negotiation processes. A simple example of a conflict between efficiency logics and anti-efficiency logics is when measures to enhance the satisfaction of employees (anti-efficiency logics of individual and collective happiness) bring down productivity (efficiency logics). In this case, the »benefit« of anti-efficiency cannot be expressed in economic terms and the pursuit of anti-efficiency logics can presumably meet with little or no general acceptance (in business practice). It becomes, however, even more difficult when individual satisfaction and collective satisfaction cannot be reconciled either. From the perspective of anti-efficiency, the »solution« to this problem cannot be the denial of this conflict, but rather that it is allowed to be »articulated« – for example, by constantly repeated adjustments, shifts and changes in practice. The logics of anti-efficiency thus implies prospecting movement, always reflexively directed towards itself, and not static fixation. The consideration of reflexive dynamics (see also Moldaschl, 2005; Jain, 2011) is therefore highly relevant in dissonant anti-efficiency logics, especially with regard to their inscription in technical systems (see section 7).

But what exactly are anti-efficiency logics? In the examples above, some potential anti-efficiency logics have already been mentioned. It is, however, important to note that it is not possible to simply list (and characterize) anti-efficiency logics, since they always result from the specific context. The answer therefore is: It is necessary to investigate the resistances to and the silencing in the practices of efficiency. And it must again and again be asked: What has not been articulated, what had no chance of being articulated and thus of becoming effective in the future due to the determinations made? This may be difficult to find out. While the questions of efficiency are pre-formulated – in »terms« of organizational, knowledge and power structures, (capital) interests, technological dependencies, etc. – anti-efficiency logics are endangered to remain overlooked and neglected due to the »momentum« and »gravity« of efficiency. It therefore requires *targeted and conscious* efforts to perceive oppositions to efficiency logics and to open up spaces for the articulation of the logics of anti-efficiency. And we should be aware that the noticeability of anti-efficiency logics might differ immensely in regard to their degree of discord to efficiency and with respect to their articulability (which is

coupled to their concreteness).

Despite of these problems and the context-dependence of anti-efficiency logics, some generally relevant logics can be named, which all too easily »get under the wheels« of efficiency and which, therefore, should be paid special attention to: innovation, relationship, and emotion logics as well the logics of desire, happiness and satisfaction. The logics of innovation is perhaps the closest to the logics of efficiency – as far as it contributes to increasing efficiency in the future. However, the logics of innovation may also conflict with efficiency logics. Neither can the »efficiency benefit« of innovations be assured beforehand, nor is every innovation aimed at increasing efficiency. This applies in particular to social innovations, which are often oriented towards relationship logics. For their part, the logics of relationship can certainly have an effect on efficiency (where cooperation is concerned). However, relationships undoubtedly follow a logic of their own, which is not always congruent with utilization interests but strongly linked to emotions.

The special significance of the logics of emotion was emphasized with the term »affective turn« (Clough and Halley, 2007). In this context, the material aspects of »feelings« are particularly stressed (see ibid.: 2). In my opinion, however, the element of »embodiment« is better addressed with the logics of desire. Desire is, on the one hand, a foundation of economic »drive«, but at the same time it is also an uncontrollable, excessive element that is opposed to the limiting logics of economy (see also Bataille, 1985). And when we are talking here about the logics of emotion, it is rather in the sense of the affective »constitution« of subjects. Their emotional life is not only socially transformed and shaped by the striving for control, but is also increasingly seen as an economic resource, as an »affective capital« (see Penz and Sauer, 2016). However, the subjective logics of emotion is, of course, as »unreliable« as that of relationship and thus probably more oriented towards the logics of satisfaction and happiness than to efficiency. The logics of satisfaction and happiness in turn are closely related to each other and yet can be distinguished: satisfaction expresses rather a passive »well-being« while happiness is a »good« which – in real life – rarely is simply »won« by luck. One must actively »perceive« and »capture« it (see also Machiavelli, 1985 [1513]: 15). Happiness thus, in a certain sense, wants to be »worked for« and is »productive«, but in quite a different sense as efficiency or technology, which, as a pure means, however, can and should also be »abused« for the ends of happiness.

7. SUBVERSIVE ANTI-EFFICIENCY TECHNOLOGIES: THE INSCRIPTION OF ANTI-EFFICIENCY LOGICS IN MACHINES AND SYSTEMS

One such »abuse« is the instrumentalization of the instrumental for the articulation of anti-efficiency logics. Anti-efficiency is not supposed to remain on the level of theory and discourse, but to become effective in practice. For this to happen, its logics must materialize. However, anti-efficancy is confronted with a stronghold of materialized efficiency in the form of systemic structures and technology, in which the economic principle of efficiency is reproduced. It is therefore all the more important that anti-efficiency logics also embody themselves in technology and systems – and thus »creep« into practice in order to spread.

»Instrumentalization of the instrumental« in this context means that the technical instruments must (again) become tools that not only serve efficiency but also those (anti-efficiency) logics which are potentially directed against it. It is thus necessary to develop subversive »counter-technologies« which are more than efficient generators of economic surplus: in which the logics of relationship, happiness, desire and all other (differing) logics are »taken into account«. One may hope that such counter-technologies will spread because people desire them as they are »tired« of the dominance of the limiting logics of efficiency. Technologies of anti-efficiency would consequently be »desirable« machines of happiness, which represent, so to speak, the opposite of »desiring machines« (cf. Deleuze/Guattari, 1977 [1972]). While desiring machines (fuelled economically) keep people functioning through their (consumer) desires, machines of happiness that follow the logics of anti-efficiency attempt at making technology an instrument of the human good again.

Obviously, this is a rather naive enterprise. Not only will some deny that the existing (social, economic and technological) machines do not serve the happiness of people. Unfortunately, one must above all doubt that it is even possible to construct anti-efficient yet effective machines of happiness. Every translation process is inevitably afflicted with (semantic) losses. If one translates anti-efficiency logics technologically, this may render them meaningless. It can be assumed that the translation process will especially cause the dissonant elements of anti-efficiency to fall by the wayside as one will tend to ignore those parts which are in explicit contradiction to technological logics (which is currently coupled so closely to efficiency logics). But at least one thing is encouraging: the logics of efficiency is not immanent in the field of technology either. It is not actually the technology but its economic mission which

dictates that technical solutions must be efficient. Therefore, if it has been possible to translate economic logics (in the sense of efficiency) into technology so successfully that it reproduces itself almost independently, then it may also be possible to anchor and spread anti-efficiency logics in technology. For reaching this target it will be necessary to integrate anti-efficiency logics already into the process of technical construction and not in a second step as is the case today – if it happens at all. And one will, again and again, have to bring into mind that it is precisely the dissonant parts that are at risk – in order to defend them against attempts of »emptying«. Without an anchoring also in the »technological base« of society, it will, however, be almost impossible to make anti-efficiency logics effective. Technology, perhaps even more so than economics, has become a determining factor in what can be »realized«. It is therefore more important than ever to create »machines« in which the logics of efficiency *and* anti-efficiency are »mediated«.

We have started a first attempt of such »mediation« in the joint project »The Logics of Anti-Efficiency: Reflexive and Sustainable Perspectives on Interactive Work With the Example of Care«. Thanks to funding from the German Federal Ministry of Education and Research and the European Social Fund, we are able to develop and test technical solutions in the field of care that take account of anti-efficiency logics. In the care sector, particularly relationship and emotion logics are of high relevance. In order to support them we designed and test three technical translations: 1. A reflexive and sustainable care logistics system is developed fed by mutual sympathy evaluations. 2. Emotion logics will be supported by an app based emotion recognition. 3. General awareness of anti-efficiency logics will be promoted at the management level by a decision-making support tool which also puts anti-efficient alternatives/arguments in focus. We are still at the beginning. Or successes (and failures) will have to be reported elsewhere. However, we strongly encourage everybody to start a translation process in order to embed other logics than efficiency in technology – and thus »make them work«. Only by technological »embodiment« the logics of anti-efficiency can become effective and practical and gain momentum.

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