A coordination challenge among multiple regulatory objectives

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Do multiple regulatory objectives put network companies in a position to prioritize? New empirical insights show that intentional balancing of conflicts is far from assured in infrastructure operations.

Liberalization practically implied the State to withdraw from infrastructure operations. Simultaneously, the State reinvented itself in a new regulatory regime with many specialized agencies stipulating and enforcing a range of conditions for public objectives, such as safety, reliability, security, labor conditions, market conditions, efficiency, return on investment, affordability, available capacity, quality, customer protection and sustainability. All objectives are to be realized by infrastructure companies simultaneously.

The theme of this Network Industries Quarterly issue is whether this new regulatory environment calls for extra coordination. Indeed, the daily provision of utility services entails many inescapable, daily dependencies among regulatory objectives of multiple agencies. A coordination challenge emerges when not all regulators can get what they want. For example, enforcing a norm may violate the rule of another regulator overseeing the same industry. A measure for safety may compromise reliability. Investments in sustainability may require a prohibited tariff raise, etc.

A recent empirical study, more extensively reported elsewhere (Steenhuisen 2009), shows how rail and energy industries actually deal with multiple, potentially competing, regulatory objectives. The focus on infrastructure operations stems from the conviction that the only sensible understanding of priorities among objectives emerges in concrete choice situations (Lindblom 1959). In the Dutch railway and electricity, we inquired whether and where regulatory objectives actually require coordination in infrastructure operations. Next, we searched for mechanisms that currently determine the trade-offs among these objectives. For example, do employees at the industries apply improvised or formal priorities? How are these priorities arranged? Do employees always weigh the consequences, if so, on the basis of what formula?

It is commonly assumed that conflicts among regulatory objectives put infrastructure companies in a position to prioritize. Literature on the multiple principals problem showed that these conflicts frequently occur (Pandy and Wright 2006). Such conflicts force the companies to be non-compliant with their regulators in order to comply with others. Other studies showed that competing regulatory interventions may also cancel out each other and harm the effectiveness of both. This is known as the crowding out effect (Miller and Whitford 2002). A shared argument among these studies is that in cases of non-compliance, the company may be tricked into inevitable coordination failure without a deliberate choice to shirk when responding to competing oversight objectives. At the same time, these competing objectives are assumed to provide agents extra opportunities to shirk. But this behavior of regulated companies is more often assumed than extensively studied.

Our empirical evidence suggests an alternative understanding of the actual coordination challenges at hand. Intentional coordination appeared far from assured, as infrastructure companies generally neglect to oversee the trade-offs they constantly produce in operations. This observation has been validated in three semi-ethnographic case-studies for transporting passenger by trains, for rail traffic control and for maintaining electricity distribution networks. Strikingly, this analysis finds support in all three cases despite large differences in their systems' underlying complexities and dynamics. Literature on 'coping strategies' (Lipsky 1980, Brunsson 1989, Thacher and Rein 2004) further explains the way infrastructure companies do produce trade-offs. Examples of coping strategies are creaming off, triage, double talk, cycling and casuistry. A fundamental thought behind these strategies is that trade-offs can be dealt with in a functional and efficient way without explicitly weighing and comparing the objectives in conflict. We report on such coping behavior within network industries. In conclusion, we point out the urgent implications of coping for the future development of regulatory regimes.

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Coping strategies in network industries

It seems helpful to start briefly with explaining how we studied coping behavior of network industries. We traversed three infrastructure-based organizations to gather representative data on their daily trade-offs aff ecting regulatory objectives. In total, we conducted 126 semi-structured interviews and, additionally, spent 25 working shifts out in the fi eld, in control rooms as well as at some staff meetings. We mainly asked respondents what they pursued in their daily work and how well they succeeded.

For each separate regulatory objective, we tracked its operationalization in rules and instruction seeping through the organization as far as it went. These operationalizations generally took us from the strategic managers in the planning phase eventually to the operators, such as train drivers, traffic controllers, train conductors and mechanics. Afterwards, middle managers had the primary task to oversee the realization of these objectives. In each of these organizational phases or practices – planning, operation and managerial oversight—we met the same regulatory objectives but cloaked in different guises and circumstances. For each phase, we gained generalized understandings of the coping strategies to deal with conflicting regulatory objectives.

In the planning phase, it appeared hard to see tensions between regulatory objectives, at fi rst. On a yearly basis, systematic strategic decisions smoothly produced standards, norms, budget allocations and projects in response to diverse stakes in a dynamic and demanding environment. Complementary to these strategic decisions, planning departments constantly developed protocols and more detailed plans, though mainly by focusing on one objective at a time.

Planners and strategic managers had structural troubles answering direct questions about trade-offs. They often found it an awkward question. We met relatively many respondents in the planning phase responsible for single objectives: only safety, only reliability or only customer motivations even develop routines not to address various conflicts. As a result, their coping response becomes emergent. In contrast to planners and strategic managers, operators encounter acute dilemmas very frequently with diametrically opposed risks. Choices suddenly emerge, for example to either turn off a gas tap in a room full of gas or to evacuate leaving the gas tap on; to either leave an overcrowded platform or to run an overcrowded train; to either cancel a delayed train or to accept the extra delay this train may cause in other parts of the network. Operators mainly cope with these situations without prescribed instructions how to respond.

We distinguished two types of confl icts. Either the quality or the quantity of instructions required coping. When quality of instructions is the problem, two or more instructions rule out each other in a particular context, inducing workers to choose between these instructions. In rail operations, for example, the instruction ‘always depart on time’ regularly confl icts with safety instructions, other instructions to inform passengers, personal preferences to wait for train connections or protocols to help board a passenger with reduced mobility. Ideas how to balance with inconsistent instructions are often based on rather personal heuristics at best. In the worst case, however, operators leave the intention to balance multiple objectives. As work pressures rise, they increasingly tend to take refuge to either the maximization of a most prominent objective, such as safety, or to creatively reason away the confl ict by redefi ning their task and responsibility.

When the quantity of instructions is problematic, the exact moment and context of time pressure becomes unpredictable. Many workers indicate, quite vaguely, that the unspecifi ed but obligatory ‘continuity of operations’ forces them into painful trade-offs without clear confl icts. Responses to these confl icts tend not to be very concrete or fi xed. ‘We just use common sense’, workers typically explain. At times, however, the confl icts require, overcharge workers with responsibility and they lose control over the situation. They lose themselves into details. As a result, their coping response becomes emergent. ‘Priorities emerge’ and ‘safety becomes a gray area’ they say. Accordingly, their responses risk loosing any direction. ‘Sometimes doing something is better than doing nothing’, they describe daily choices. As pressures hold, operators even develop routines not to address various confl icts at all, waiting for the managerial intervention to repair. As pressures rise, trade-offs in the operational phase tend to get fragile and the strategies to respond become implicit.

In the phase of managerial oversight, middle managers respond to the aggregate performance of operations with checks-and-balances for new priorities and repressed objectives. This corrective strategy is generally focused on single objectives again, triggered by concrete norm or rule deviations. Performance monitoring systems, how-
ever, do not enable managers to understand how competing regulatory objectives materialize in daily operations. Accordingly, some middle managers keep insisting ‘there are no conflicts’.

Formally, middle managers complete the ‘plan-do-check-act’ cycle by giving feedback on the daily improvisations of operators. But this cycle structurally fails to come round with regard to coping behavior. Information on operational coping fails to reach managers, as they focus on single-objective problems, hereby sanitizing the feedback of its conflicts before making sense of it. Consequently, the new instructions and priorities operators receive in return gets devoid of all validity in practical conflict situations. Many workers indicate they never receive feedback on how they daily solve unplanned conflicts, because the feedback operators do receive is mostly geared towards improving single-objective problems. So, in effect, middle managers, more or less deliberately, push the challenge to cope back to the operational level again and again.

In sum, many of the intricate interdependencies among regulatory objectives only become visible in real-time operations. Accordingly, the coping strategies in the planning and monitoring phase allow these tensions to shift to the operational level. Here, operators experience structural difficulties in addressing these conflicts in sensible way, as the feedback loop to repair deviant trade-offs fails. At the end of the day, significant conflicts among regulatory objectives constantly emerge in operations without sensitive and consistent managerial guidance. When the professionalism of operational workers somehow fails, and it eventually will under increasing work pressures, this coordination challenge that rises from multiple regulatory objectives is left unaddressed within the network industries.

Conclusions

New empirical insights show the current strategies network industries use to deal with the ‘coordination challenge’ for competing regulatory objectives. Strikingly, the actual concept of trade-offs appeared under-developed within the organizational settings of these industries. Outside operations, regulatory objectives are generally treated as non-fungible. As a consequence, the reciprocal relationships between objectives are not explicitly made commensurate. Instead of formal trade-off processes, infrastructure companies tend to manage their operational processes without paying attention to the reciprocal relationship between objectives.

In line with the concept of coping, network industries treat competing objectives sequentially. Essentially, the industries identified and appraised trade-offs retrospectively through regret when their neglect becomes most evident. So, where common literature on decision-making portrays trade-offs as a core organizational phenomenon, closer study reveals that they are quite conceptual. ‘Trade-off’, though so often talked about, actually seems to be a misnomer for how the industries treat competing regulatory objectives.

An intriguing question is how to explain this rather awkward coping behavior. Why can these infrastructure companies as well as their regulators afford not to manage many unplanned conflicts between regulatory objectives? An organizational-wide system of checks-and-balances emerges that focuses on single objectives. The dominant form of coping is to optimize for one objective by suboptimizing for others. Coping strategies in operations, though generally unstructured and deviant, serve as a critical capacity of these organizations to neutralize these suboptimalizations. Coping in operations forms a countervailing power for the organization not to keep tossing around conflicts. To avoid cycling priorities over time, a rather inert dose of common sense in operations constantly buffers many tensions, but often without fully recognizing the trade-offs and without managerial feedback on their efficiency and effectiveness.

These conclusions are not only relevant for the industries, but also for the future development of regulatory regimes. Many specialized agencies promoting single objectives simply pass by these coordination challenges, trusting them to be solved by the industry. But the coordination of multiple regulatory objectives in infrastructure operations is far from self-evident. In fact, the indifferent attitude of regulators towards conflicts among regulatory objectives may very well reinforce a retrospective approach to trade-offs within the industry, destabilizing the current operational strategies in their attempt to simultaneously deal with many competing public objectives. Another important lesson for the regulatory regime contrasts to what is commonly assumed, and postulated in principal-agent literature. Whereas most regulators design their incentives to correct for shirking or strategically gaming industries, banishing this behavior may still fail to reverse systematic and increasing underperformance as regulatory objectives compete in infrastructure operations.

A tragic scenario forces itself upon us when competing regulatory objectives undermine the performance of network industries. Neither the managers at the industries nor the regulatory agencies will recognize operational conflicts as the cause of it. Nevertheless, managers and regulators will intervene and this might temporarily be effective as well. The consequential logic behind these checks-and-balances is to increase pressures at both sides of the conflict without taking away the conflict and without seeing how these pressures kill the eventual tacit ability of the industry to cope. Therefore, regulatory agencies are urged to take
one step back to broaden their mindset by rethinking the coordination challenges they collectively induce in operations as a regime.

References