



Transforming the Safety Culture at New York City Transit

By Levi Nieminen, Carmen Bianco, Daniel Denison

In 2010, the Metropolitan Transportation Authority (MTA), New York City Transit's subway system, experienced a number of highly publicized incidents including a worker fatality, a blizzard that left passengers stranded in train cars overnight without food, water, or heat, and the uncovering of a scandal involving the falsification of signal safety tests and records. Their culmination made clear to Carmen Bianco, then in his first year as senior vice president of the Department of Subways for MTA New York City Transit, that change was needed and tactical fixes alone would not be sufficient.

One of the highest priorities for any organization is to create a culture that supports safety and security. But how should organizations go about meeting that challenge? The most successful safety transformations tend to start and end with a clear focus on *core* leadership and organizational challenges. This is a contrast with the way that many *safety culture* engagements are framed, where the focus is narrowly defined in terms of the work practices and procedures that influence safety outcomes.

When framed too narrowly, these efforts rarely uncover the deeper cultural issues at play in an organization and seldom lead to lasting change. And at their worst, the impact of narrowly focused safety transformations is limited to the introduction of superficial “rules and tools” that eventually lose out to the established mindset and long-engrained ways of working together.

The interventions we've seen to be most effective are appropriately targeted and have immediate credibility with the people who do the real work. They "zoom in" on the concrete specifics every day. But they also "zoom out" on the core leadership and organizational challenges that are rooted in the broader culture. The tricky issue is choosing points of leverage and intervention to enhance systemic change within the organization.

This article is built around a case study that shows how the MTA New York City Transit found that point of balance with a program called FASTRACK. This program fundamentally altered the way that the subways are repaired and maintained.

One of the coauthors, Carmen, was first the head of the agency's Department of Subways and then he was elevated to lead NYC Transit, so we are able to share his thoughts, voice, and actions. The other coauthors have consulted to the organization, so are able to share an external perspective and provide context on the unique nature of this change.

Changing the Culture of an Agency, New York City Style

The MTA oversees the delivery of public transportation within the five boroughs and to and from the northern suburbs of New York City. This includes a high-volume subway system, carrying an average of 5.4 million passengers per day—1.6 billion per year. Maintaining the 820 miles of track that comprise the subway system is a major task, and is one of several maintenance functions that are crucial to keeping the trains and the people moving safely and swiftly to their destinations.

There are only a few options for performing major maintenance chores in a system that operates around the clock, 365 days a year, and carries an average of nearly six million customers during each 24-hour period. In the past, most track maintenance was accomplished on the weekends and during the overnight period when train volume is lowest. With the crews repairing the tracks in the short timeframes between trains, the maintenance work was slow, expensive, and potentially dangerous. Plus, the old strategy was deeply engrained in one of the New York City Transit's strongest operating principles: keeping the trains moving.

The New York City Transit workers who toil along the tracks have long been accustomed to sharing their workspace with 400 tons of subway train. The term "clearing up" refers to the common practice of picking up their tools and

moving to a safe location just before a train rolls through their work zone. Even in the middle of the night, this is common behavior that raises their risk and lowers their productivity. Carmen reflects on his experience of the transformation:

When I first came onto the job as SVP Department of Subways, I visited a location in Long Island City where work was being performed along the Flushing Line. I later learned that our maintainers were forced to clear up for an approaching train within minutes of beginning the task. Throughout the entire shift, barely an hour of wrench time was accomplished.

Application for Other Leaders and Organizations

Lessons for use by other leaders and organizations:

- Significant improvement of safety is more than operational execution; it also requires cultural transformation and this must go hand in hand with operational execution.
- The senior executive and his or her team need to recognize that the culture may be an initial impediment to change, but you can learn to leverage it. Also, expect that poking at cultural history will elicit some initial resistance, not just inside but from customers as well.
- The zoom in, zoom out framework can serve as a guide for senior executives, HR and other departments looking to drive substantive change; it allows you to see the intervention from a broader perspective, even as you drive change in specific behaviors.
- Safety, like other forms of enterprise change, is more likely to build and maintain broad support when tied to organizational performance improvement and measurable outcomes.
- There are long-term benefits that you don't always realize in midst of change, such as building capacity to encounter future challenges, just as the MTA found this intervention helped it better respond to Superstorm Sandy.

In most subway systems around the world, service is suspended overnight. This gives workers the opportunity to come in and perform maintenance and inspection chores unimpeded by train traffic. The system can be kept clean and in good repair because the suspension of service is a common practice, and they can work without interruption every night. But as they say, New York is truly a city that never sleeps, and it requires a subway system that also stays up all night. Customers who use the system at night have become accustomed to trains running slowly through a well-lit work zone while workers stand off to one side of the tracks. A better means of maintaining our infrastructure was needed, at least in selected areas.

What we came up with was the idea to suspend service from a line segment for a prescribed period of time for four weeknights. During this period, trains would be absent from this segment, and customers would be shifted to nearby lines running parallel to the affected segment. We would halt service at 10 p.m., and it would resume the next morning at 5 a.m.

The initial FASTRACK began on Monday, January 9, 2012, along the Lexington Avenue corridor between Grand Central-42 St. and Atlantic Avenue in Brooklyn. Upwards of 800 workers swarmed the tracks, tunnels and stations performing about 300 maintenance tasks, and it was clear that something was changing.

The spirit that was evident on that first night, and the many that followed was the first flicker and an indication to me that we were on the verge of huge culture change at Transit. Hourlies and supervisors were working side-by-side in an effort to achieve an unprecedented amount of work over a relatively short duration. Senior leaders in the organization got out and started walking the tracks at night to talk with employees and see FASTRACK in action.

Over time, the positive impact of FASTRACK was observed not only in terms of safety, with accidents cut nearly in half, but also in terms of the organization's overall performance. Although customers were not initially enthused at the announcement that their nightly commute would be rerouted, over time, customer acceptance was very high. The properties were improved, and people noticed. Train reliability improved by nearly 5 percent, so that meant more on-time departures and arrivals. And with the improved employee productivity, the estimated savings to the MTA were in excess of \$16.7M. While FASTRACK was a transformative endeavor allowing NYC Transit to operate and maintain infrastructure in a fresh, new way, the lessons learned migrated to other segments of the operation. Workers and supervisors who were assigned to FASTRACK duties were able to transfer the FASTRACK experience to daily maintenance operations.

But nearly as important has been the buy in by customers. They have seen the results of FASTRACK and have come to expect it to hit

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their line segments on a regular and routine basis. Organizationally, FASTRACK has been a resounding success—a grand slam that enhances worker safety, productivity and efficiency while satisfying the customer need for a clean right-of-way and improvement to the station environment. And it all happens overnight.

Addressing the Culture Behind Safety Transformation

What was the impetus behind FASTRACK? It wasn't just a safety and operations task force, nor was it driven by a commission team of technical experts set forth to diagnose and improve subway maintenance. The starting point for FASTRACK was the recognition by Carmen and the leadership team that the organization had a deep-seated culture problem and his belief that a change was both necessary and possible.

Senior Team Alignment Is Essential

Although the organization certainly has a long and proud history of serving NYC, Carmen's very first year on the job

and the string of safety issues throughout 2010, made the cultural problem starkly apparent. Approaching this change from a broad cultural perspective helped to bring a few of the key elements into focus. A diagnostic exercise that focused on high-performance culture, and was not specific to safety culture, compared the MTA to other organizations and pointed to specific challenges in the area of mission. That is, the degree of clarity and alignment among people about the future direction and plans for the organization.¹ Carmen's vision for the change process was clear. It would be impossible to cascade new priorities out to the workforce without first building the alignment among the senior leadership team.

Don't Let Core Beliefs Become a Blind Spot

As his top team got to work on creating a new mission and vision for NYC Transit, it was clear that the organization's oldest point of pride would be its biggest barrier to giving safety the priority it truly deserved. "Keep the trains moving" was reflected in all aspects of daily life and operations, including in the old "clearing up" maintenance routines.

On its face and in its substance, FASTRACK was about finding a safer way to do maintenance and repair. This close connection to worker safety made it an initiative that everyone could stand behind. But on a more fundamental level, it was also a direct challenge to core beliefs and an important signal to the workforce that priorities were shifting. For leaders, this was a powerful demonstration of their commitment to safety as part of the new mission and vision.

New Routines and Behaviors to Support Change

It is interesting to speculate whether FASTRACK could have been successful without strong ties to performance improvement, in addition to safety. From a management perspective, the program was an investment that would create a more reliable system in the long run. This required a mindset shift and also the courage to stay the course during the initial pushback from inconvenienced New Yorkers, who eventually became strong supporters of FASTRACK. Executing on FASTRACK also forced the development of new, proactive planning routines and capabilities. From an employee perspective, it also made the job easier, more efficient, and safer. The old routine was frustrating and hazardous, and FASTRACK had changed that.

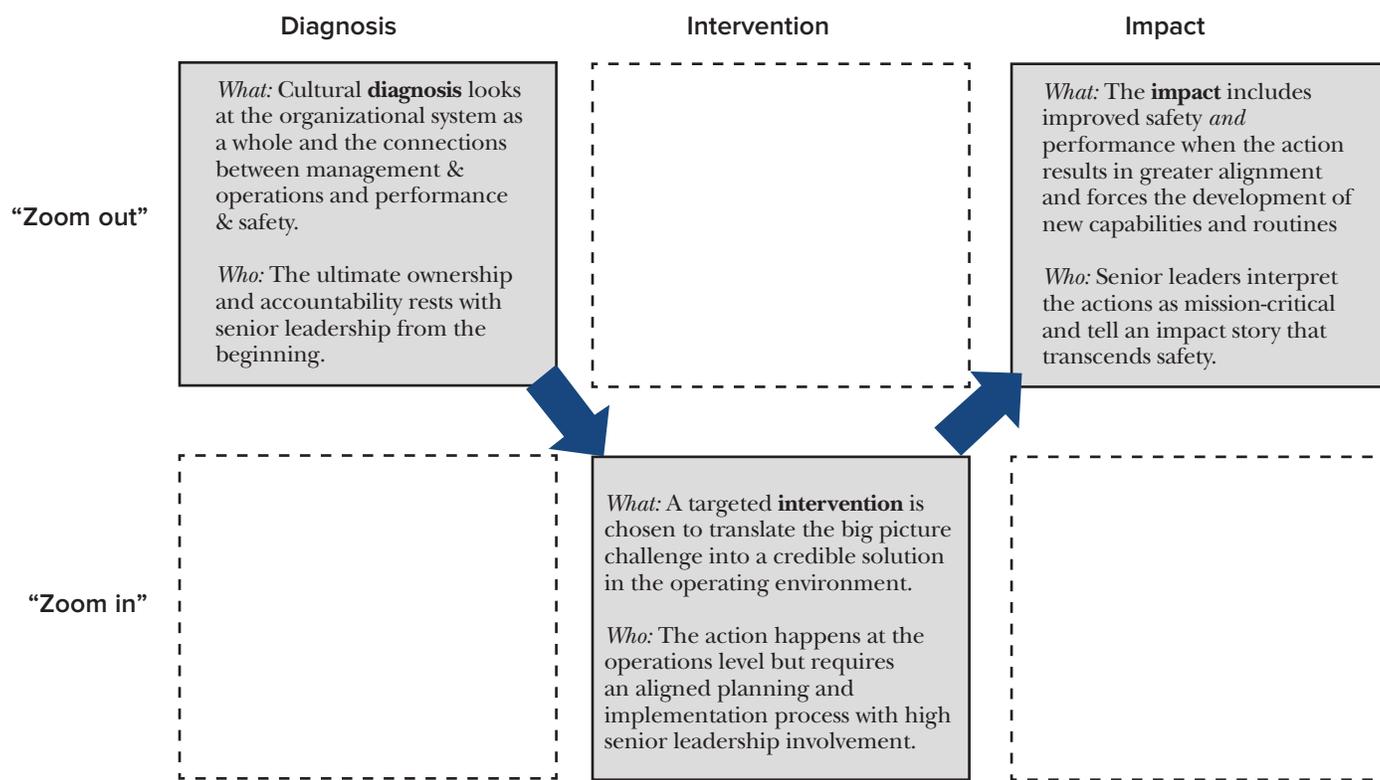
Zoom In, Zoom Out: Lessons from Adding a Wide-Angle Lens on Safety

Several powerful lessons were learned from the MTA experience. A significant one was the transformative impact that came from the ability of the MTA leadership team to "zoom in and zoom out,"² moving from a broad-based culture assessment to a very specific intervention, and then lever-

¹ The broad culture diagnosis described here used Denison's approach, best described in Denison, Hooijberg, Lane, & Leif, 2012.

² The authors would like to credit Hagel, Brown, and Lang (2010) for their perspective on "zoom in, zoom out" as influential to the viewpoint shared in this article.

Figure 1. Diagnosis, intervention, and impact of a “zoom in, zoom out” approach to safety transformation



aging the impact created by that successful intervention to build momentum for broader-based system changes. Similar to the way many cameras allow one to zoom in for a narrow perspective and then zoom out for a wide-angle perspective, we believe the combination of perspectives provides more context and better view of the whole picture.

Like most transformations, the MTA story involves the three distinct stages of *diagnosis*, *intervention*, and *impact*. *Diagnosis* includes the activities taken to understand the current state of the organization and build the case for change. *Intervention* is the execution of one or more actions intended to bring about the necessary changes. *Impact* is demonstrated in the results of the intervention and the people’s evaluation and understanding of those results.

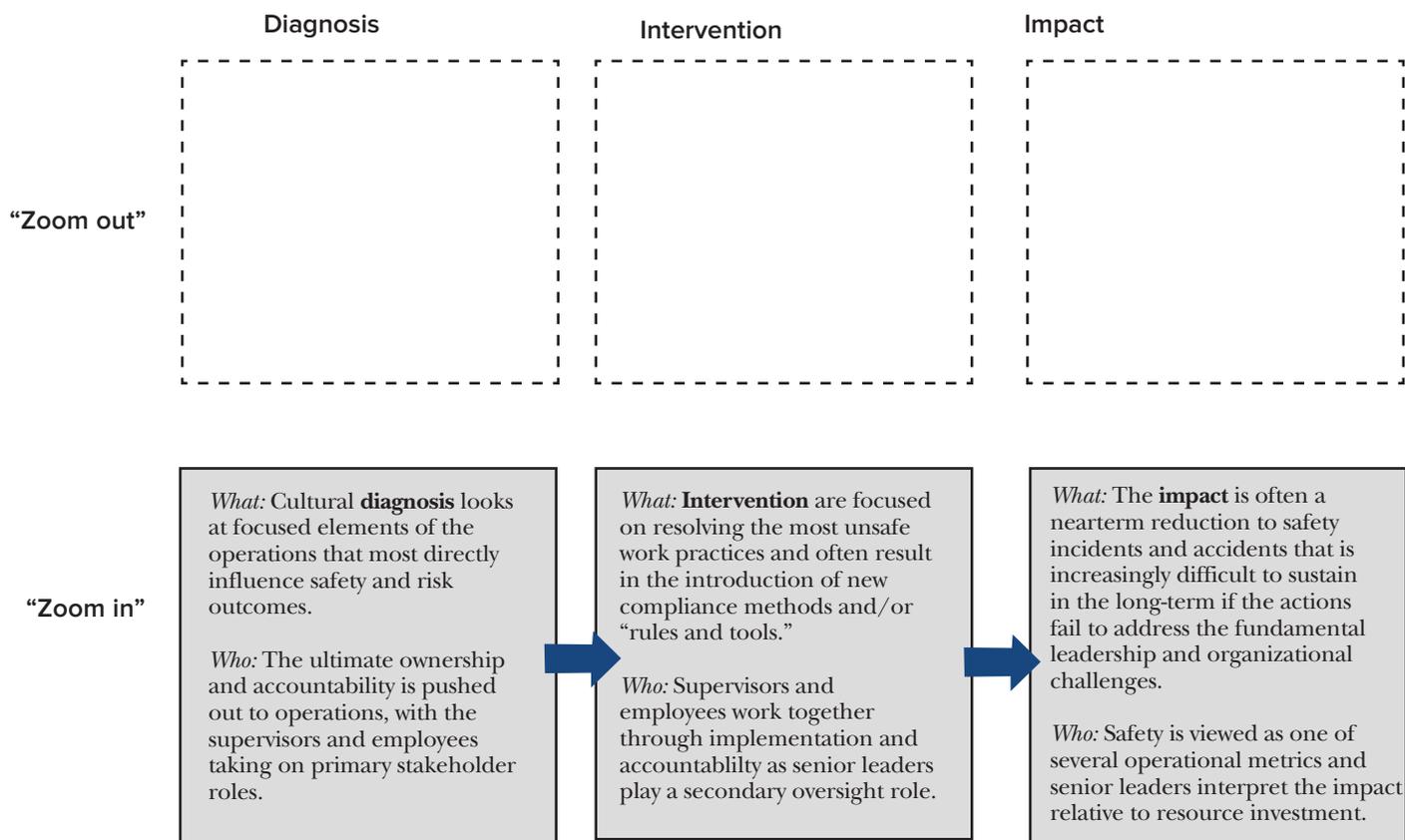
Using these stages as a framework, we can identify some of the differentiating features of a zoom in, zoom out perspective. As shown in Figure 1, at the diagnosis phase, the assessment focused on the entire organization as a system, and looked carefully at the linkages between leadership behavior, operational performance, and safety. “Zooming out” provided the big picture. This helped create a high level of ownership and accountability from the senior leadership of the organization. But out of these discussions, they targeted an intervention, FASTRACK, which was very specific—their approach translated a big picture challenge into a credible solution in the operating environment.

It is notable that the intervention was not targeted at the same level as the diagnosis. The team “zoomed in” on a very specific set of operational issues, and took actions that addressed a number of the issues identified by the diagnosis. This choice of the key targets for intervention is one of the most important choices that the team made.

A focus on the “keystone habits” (Duhigg, 2012) is critically important to help build the momentum for change. Keystone habits are unique because of their dense *interconnections* with a wide range of daily behaviors in the organization and their strong potential for *impact* if changed (Denison & Nieminen, 2014). This means that if organizations can effectively target their keystone habits, as in the case of FASTRACK, they can find powerful turnkeys for cascading broader cultural change.

This added value of being able to zoom in and out, shifting perspective, came through loud and clear at the impact stage, when the team once again “zoomed out” to give broader application to the set of lessons learned through the FASTRACK experience. Most significantly, the capability to organize large groups of 800-900 maintenance workers to plan and coordinate their work paid off handsomely later that year when it came time to respond to the incredible challenge of Superstorm Sandy in October 2012. The organization’s preparation and response to the storm was heralded as a major achievement, with 80 percent of the

Figure 2. Diagnosis, intervention, and impact of the contrasted safety culture approach



subway back in operation within only five days of the storm.

The approach described in this case study provides a dramatic contrast to what we have seen in many other safety culture projects. More often, as we show in Figure 2, safety culture efforts often begin by focusing on the narrower set of elements of the operation that most directly influence safety outcomes, defining supervisors and employees as the main stakeholders. As a result, the interventions focus directly on the "rules and tools" that are designed to mitigate unsafe work practices, and the project progresses with a strong emphasis on compliance. Unfortunately, the impact of such efforts is often short-lived, because the effort has failed to address the fundamental leadership and organizational challenges.

This framework can help us rethink our approach so that our efforts to improve safety have the greatest possible impact. The stakes are always high and people are always watching. The MTA case has provided a compelling example of the intriguing dynamics of a multi-year system-wide transformation. And it all happened overnight! 🧩

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