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A story's impact on organizational-culture change

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Abstract

Purpose – The purpose of the paper is to explain the successful implementation of organizational applications, and ensuing organizational change, based on a story from a GM manufacturing plant.

Design/methodology/approach – The approach involved collecting and analyzing the Hoist Story as part of a multi-year ethnographic research project designed to identify the key attributes in an ideal plant culture. Through a cooperative process of co-production, the authors worked in tandem with organizational members on issues related to organizational-culture change.

Findings – The findings emphasize both the Hoist Story's process impact and outcome impact. The Hoist Story was a catalyst for the change process, resulting in a high level of buy-in across the organization; as such it contrasts with much of the management literature on "planned change." It also led to the development of several "packaged products" (e.g. a story script, video, collaboration tools) which propelled GM manufacturing culture closer to its ideal – a culture of collaboration. Using employee stories as a means to understand and drive culture change is a largely underdeveloped area of scholarship.

Originality/value – This paper provides value by bridging the gap between theory and praxis. It includes the documentation and cultural analysis of the story, but illustrates how the story evolved into specific organizational-culture-change applications. This "soup-to-nuts" approach can serve as a model for organizational researchers and change agents interested in spearheading or supporting organizational-culture change.

Keywords Organizational culture, Organizational-culture change, Cultural applications, Collaboration, Organizational stories, Ethnography, Manufacturing industries

Paper type Research paper

Introduction

Organizations are continually in the process of change, with the hopes of becoming more productive, efficient, and effective in their mission. At General Motors (GM), the

The authors appreciate the willingness of so many GM employees to speak with them about their views of the ideal plant culture. Their statements, examples, and stories, along with their enthusiasm and spirit of cooperation helped the authors to frame the key cultural issues and work towards the creation of tools for organizational-culture change. The authors thank the plant engineer for sharing the Hoist Story with them. They thank the members of the training staff for their interest in working with them to create the various applications for organizational-culture change. Several plant managers, members of GM's Manufacturing Managers Council, senior GM leadership, GM-UAW Quality Network leadership, and the leaders of some UAW locals have been very supportive of this work. The authors thank Perry Kuey who designed Figures 1 and 3. They also appreciate the helpful comments offered by the journal reviewers.

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Ideal Plant Culture Project was initiated to gather employee and managerial input on organizational-culture change within GM's manufacturing function. As applied researchers, we were asked to gather data from several existing US manufacturing plants on desired improvements in the culture of those plants. The anticipated outcome was a set of best practices and applications that GM plants could use as they sought to improve their overall effectiveness.

Over a period of several years, we conducted anthropological fieldwork in a variety of manufacturing environments. We discovered a strong desire among all organizational members to move away from an "old way" viewed as directive and authoritative, to a more collaborative approach to production work characterized by team-based cooperative activities, individually-suggested improvements on work practices and processes, and plant-wide problem solving. Perceptions in the form of statements and stories, along with the behaviors we observed in manufacturing environments, helped us to construct a model of this collaborative "ideal." In this paper, we focus on one particular story – the Hoist Story – as a window onto the evolution of plant culture. Because this story presented the contrasting case of the "old way" and the "ideal," and because it became a catalyst for future changes within the plant, it reinforces the notion that stories have the potential to create and sustain organizational-culture change.

Literature review

There is general consensus among organizational scholars that stories represent an "exchange between two or more persons during which a past or anticipated experience [is] referenced, recounted, interpreted or challenged" (Boje, 1991a, p. 8). The organizational literature surrounding stories and narratives is wide ranging – with diverse areas of focus: understanding and sharing story content (Mitchell, 2005), examining organizational roles (Chreim, 2007), exploring the organizational context in which the story is embedded (Hansen, 2006; Bryant and Cox, 2004; O'Connor, 2000), identifying the ways in which the story is interpreted (Fronda and Moriceau, 2008), examining organizational practices in cross-cultural settings (Soin and Scheytt, 2006), and using stories to "make sense" of organizational changes (Chreim, 2007; Reissner, 2005; Brown and Humphreys, 2003; Gabriel, 2000; Boyce, 1995). Much of this literatures specifies how stories and narratives are "socially constructed" as people interact (Stacey, 2001; Boje, 1991a). Indeed, much of the research on storytelling (Adorisio, 2008; Mitchell, 2005) and "storyselling" (Lapp and Carr, 2008) emphasizes the motivations of those conveying the story (Steuer and Wood, 2008) as well as the collective interactions between the teller/seller and the organizational audience (Boyce, 1995).

Stories represent one mechanism through which organizational culture and organizational-culture change can be described and explained. Stories can be used to promote a particular point of view – sometimes referred to as a "hegemonic" narrative (Vickers, 2008). Such stories tend to exhibit a singular, uni-dimensional orientation toward the issue at hand (e.g. a management perspective concerning a set of organizational changes, Steuer and Wood, 2008). Stories can be used to reinforce core cultural ideals much like the reinforcement produced by urban myths for adults and fairy tales for children. The stories represent attempts to plan for and control the ensuing organizational changes, though some have called into question managerial abilities to direct such change (Beech, 2000). An alternate view is that all organizational

members, including management, have their own explanations for the emerging changes (Brown and Humphreys, 2003). These explanations often appear in the form of stories and offer listeners new ideas and strategies for coping with the uncertainties (Czarniawska, 1997; Orr, 1996; Orr, 1986).

Some differences in the literature emerge when we compare the work of organizational researchers with the practitioner community. Researchers are more likely to be involved in diagnosing areas undergoing change (Boje, 1991a) and explaining the persuasive value of storytelling to foster change (Suchman, 2003). By contrast, practitioners are more likely to be proscriptive – pitching change through "coaching advice" using "steps" "keys" and "training" related to story use (Silverman, 2006; Armstrong, 2002; Denning, 2001). Some have even aggregated compilations of diverse of stories that can be drawn upon by organizational leaders to push for change (Parkin, 2004). Gaps between scholarship and practice have been identified by Boje (2006, p. 223) who argues that they are "holding back the development of story praxis" as a mechanism for organizational-cultural change. Boje, as well as our research team, recognize the importance of capturing the perspectives of those individuals linked with the change process. Storytelling allows the transmission of those experiences, thoughts, and values "in their own words."

Our paper is an attempt to fill in some of these gaps in story praxis by examining both the process impact and the outcome impact of stories on organizational-culture change. Of particular interest to us are the ways in which stories become part of the cultural fabric of the organization, and how they help to "provide a framework for the future" (Jordan, 1996, p. 28). Our approach includes, but moves beyond, the story or narrative and its interpretations, to organizational action. Connell *et al.* (2003, p. 159) suggest that "stories become knowledge-flow facilitation devices." Such imagery was useful to us as we conceptualized the path one story took as a major organizational-culture change was underway. Our ability to capture a diachronic view of the organizational-culture-change process led to the implementation of a series of independently-developed "packaged products" that symbolized and reinforced the ongoing organizational-culture change.

In addition, we were interested in the broader cultural context in which the story evolved. Our approach, like that of many other researchers (Adorisio, 2008; Hansen, 2006; Jordan, 1996; Boyce, 1995), links the ethnographic field data surrounding the story, with the narrative content of the story. However, since ours was a "real-time" rather than retrospective study, we found that the researchers were fully immersed in the story-production and application-development processes, akin or community action research (see Wallace, 2005; Van Willigen *et al.*, 1989; Chambers, 1985). Indeed, the roles of study participants and researchers were intertwined over a period of several years and involved repeated and direct interventions in plant culture. We describe this involvement as "co-production" in which study participants and anthropologists build on each other's knowledge and skills to create and put into practice specific applications that fostered organizational-culture change.

Background

We began the research portion of the project by conducting ethnographic research in four GM manufacturing plants in the US. Our guiding ethnographic question was intended to elicit views of an "ideal" plant culture. We phrased it in various ways:

- What would make your plant the best possible place in which to work?
- Describe what you consider to be the ideal plant culture.
- What characteristics make up an ideal plant culture?
- How do we reach the ideal? What are the barriers?
- What could be done to make this plant the best place to work in GM?

We gathered the perspectives of a cross-section of organizational members (i.e. over 400 hourly, salary, and executive employees during the field period and validation phases of the project) in various settings including along the assembly or subassembly lines, in skilled-trades areas, in break rooms, in offices, and in the cafeteria.

Study participants typically responded by relaying examples or telling stories of their experiences at work – both positive and negative. These stories described or clarified a current or past situation and were typically followed by an evaluation of that situation. This pattern of response was our first indication that organizational members drew distinctions between what they considered the "old way" of thinking, behaving, and interacting, and a potential new or ideal way. From these findings, we created and subsequently validated (e.g. in conversations, during formal presentations to plant leaders) the Bridge Model of Cultural Transformation (see Figure 1). It illustrates a composite conceptualization of the organizational-culture-change process, a process that is situated within a broader cultural environment. Cultural problem solving occurs as employees recognize the necessity of change (cultural adaptiveness) and then respond appropriately (cultural responsiveness)[1]. Organizational members encounter obstacles (e.g. resistance to change, cultural contradictions) as they attempt to change their culture. They may apply enablers (e.g. cultural processes that support the direction and pace of cultural transformation such as empowering employees, taking time for relationship building, and providing appropriate and sufficient training) to mitigate the obstacles and provide some direction in moving away from the old way towards the ideal.

We then turned our attention on the particular statements, examples, and stories, finding that the field data was directly linked to the cultural theme of collaboration. Organizational members were able to articulate a strong desire for a more unified, cooperative, and harmonious work culture than what they were currently experiencing

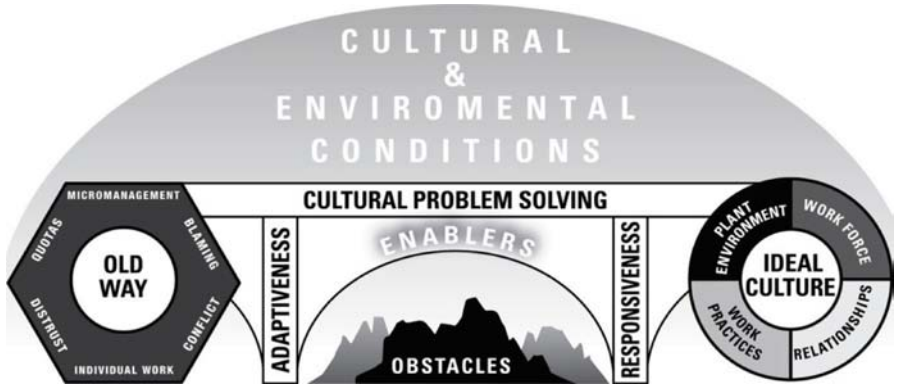

Figure 1.
Bridge Model of Cultural Transformation

or had experienced at some point in the past. Indeed, the overwhelming preference was for a congenial set of co-workers and supervisors who would work together to achieve plant goals – problem solving along the way. Thus, a culture of collaboration represented their ideal. Indeed, study participants' world view could be summed up in a simple message – "It's all about relationships," a statement conveying the importance of building and maintaining relationships as a prerequisite to overall plant effectiveness. Collaboration, cooperation, and unity cannot be achieved unless strong, healthy relationships are in place among organizational members. A more detailed content analysis (Bernard, 2000; Bernard, 1998; Schensul *et al.*, 1999; Trotter and Schensul, 1998) revealed that the comments, examples, and stories we collected could be grouped into four topical categories:

(1) plant environment;

(2) work force;

(3) work practices; and

(4) relationships[2].

From this categorization we created the Ideal Cultural Model (shown at the far right of Figure 1). We illustrate the model with four equal parts to highlight the importance of balance among the four elements even though the Relationships portion of the Ideal Cultural Model contained more comments and stories than the other three quadrants.

Documenting the Hoist Story

The stories we documented varied in content, character development, complexity of cultural themes, and length. We learned about the Hoist Story in an interview with one of the plant engineers. During the interview, the engineer used the original blueprints to explain some of the difficulties encountered by operators when they tried to use a hoist – an apparatus used for raising something into position. About two weeks later, we conducted a follow-up interview with the same engineer to clarify and refine the accuracy of our notes and gather additional detail. The engineer took us out on the plant floor to show us the hoist and introduce us to the operators.

The text below represents a composite of the two interviews – the only narrative data we were able to collect because the plant was in the process of ceasing operations. Text concluding with the number 1 represents the first interview while the text concluding with the number 2 represents the follow-up discussion.

> I have to come in this weekend. There was a problem out on the floor of people lifting the hoods by hand. They weren't using the hoist (no. 1).
>
> There was a medical concern. We got a recordable (incident which requires an investigation per US Occupational Safety and Health Administration regulations) (no. 2).
>
> I asked them (the operators) to explain why they weren't using the hoist. They said, "It's cumbersome, it's not fast enough, and it adds 16 steps to the job." I said that I would try to work with them to help figure out a solution. I came up with something and I said, "These are my ideas." [At this point the engineer pulled out a blueprint to show how the original rail supporting the hoist was configured and how the new rail could be configured.] Then I came up with a fix and went out and talked with the guys again. I asked, "Do you think it will work?" (no. 1).

I . . . got their input. As a group we came up with the most. . .cost effective issue to solve the throughput issue and then the ergonomic issue goes away. The next step was redoing the plan and getting management to buy in. After getting management buy in, we placed the order (no. 2).

The cost was about $5,000 (no. 1).

The normal process (from my experience in other GM locations) is to have the operator, Maintenance, Ergonomics, and Safety buy in prior to shipping from the supplier to our facility. That is called a buy off. That was something the (plant) management saw as unnecessary . . . We were not allowed to go down there (to the supplier's location even though it was close by) . . . They (the supplier) shipped it (the ridge rail) in and we had eight trades people from two shifts and two operators to install it. After installing it, we found out by measuring the (physical) forces (needed when using the hoist) that there was a problem with (both) the design and the build (of the new ridge rail). They (the forces) were just within our ergonomic limits but not acceptable because we felt as a team they should be a great deal better. The forces were 22 to 24 pounds of force (no. 2).

We needed to get a new one (ridge rail). The (senior) manager told me that he was dissatisfied with what I had done. He said, "You told me that this tool would satisfy their (the operators') problem but it hasn't." I replied, "But you wouldn't let me go down to do my buy off" (no. 1).

We got the supplier . . . (to come to the plant. Their design engineer) came in with an attitude that "We've built 100 of these (ridge rails) and there has never been a problem." After the team convinced the design engineer to use it (the hoist) for himself, after loading three hoods he said, "This is too hard." For me, . . . I gained credibility with the team since I didn't leave it (the ridge rail issue) alone. Then the supplier agreed that there was a problem and that they would work with our design suggestions. They had some major design flaws . . . The supplier said they would build us a new one (ridge rail). Actually they said they would build some new components. I told them I wanted a whole new one. They needed the whole unit back so they could analyze what they did wrong . . . After going through the whole build process I asked the management staff, "Do we go into an official buy off this time?" The comment was, "Why wouldn't it be right this time?" The team responded, "The first one (ridge rail) wasn't right so do we want to take a chance, or do we want to do business the way we should and do a formal buy off? If there are any issues or concerns, they'll be taken care of before it is shipped" (no. 2).

The manager said, "Go and do the buy off." So I finally got permission to go . . . I took nine people with me, both day and night shift, salaried and hourly. I took people who do measurements etc. and we did go through the buy off. Each person signed off. This kind of thing will save money in the long run. It's them (the team who worked on solving the ridge-rail problem) that are pulling the culture along. It turned out that there were still four items which were a problem (on the supplier's second ridge rail). I got them (the supplier) to write down in writing that they would correct each of these problems (no. 1).

After we got the new one (ridge rail), the force varied from four to seven pounds and only momentarily it jumps to seven pounds due to our design suggestions. This helped them (the supplier) improve their overall design . . . During installation we had the actual Maintenance and Production involved on the weekend. From what we learned in the supplier's facility, it took half the time to remove and install it than the first one, and with half the manpower. We learned some tricks (from the supplier) and applied them here (at the plant) . . . So (in the case of this tool) we ended up with a 400 percent reduction in forces to move it (the hoist) . . . So therefore, it was not a throughput issue anymore and not an ergonomic issue . . . (To conclude) the only suggestion I've got is, there's no "I" in team . . . I'm just here to assist. They

(the team) did it. It helped cement the marriage between different groups like Production and Maintenance … (no. 2).

Writing a script

Field notes, even when annotated, are not always usable by others. Since our research group was in regular contact with organizational members – including manufacturing leaders who participated in presentations where we shared our findings – we needed user-friendly ways of sharing what we were learning with them. Therefore, we decided to transform the field notes related to our stories into story scripts.

We began the process of building a script by identifying the "core components" of the story as recorded in our field notes. We focused on who was present, when and where the story took place, what action(s) occurred, and what behaviors followed. This "sifting" technique enabled us to write the Hoist Story Script to reflect the key issues, behaviors, and outcomes as completely and accurately as possible. Characters, their interactions, and the eventual outcomes of the Hoist Story formed the plot. All verbatim quotations captured in the field notes were used in the script. Characters were always given pseudonyms because they were based on real employees.

We used several script techniques to make the story as understandable as possible. First, our narrator served as a guide – to explain the context, describe what was going on, foreshadow actions, and offer insight into the characters' perspectives. Second, "stage directions" provided specific detail on character actions (e.g. Dan: [standing in the doorway of Ed's office]; Ed: [clearly agitated]). We suspected that some of the stories would be "performed" by actors (e.g. as part of a training class, work group discussion); if so, the stage directions would help the actors visualize the sequence of actions and the importance of non-verbal communication. Third, we divided the Hoist Story script into six scenes based on the key events in the story:

(1) The Recordable;

(2) The Proposal for the Buy Off;

(3) Encountering a Technical Glitch;

(4) Soliciting Solutions;

(5) Permission for the Buy Off; and

(6) A Cultural and Technical Success.

Dividing the story into scenes enabled us to break down the reported activity and events in the story, highlighting character action and inaction.

Sometimes we had to create additional dialog to ensure that the script would be understandable. For example, we knew from the field notes that a meeting occurred with the supplier's design engineer after the first ridge rail had been installed.

> (Their design engineer) came in with an attitude that "We've built 100 of these (ridge rails) and there has never been a problem." After the team convinced the design engineer to use it (the hoist) for himself, after loading three hoods he said, "This is too hard." For me, … I gained credibility with the team since I didn't leave it (the ridge rail issue) alone. Then the supplier agreed that there was a problem and that they would work with our design suggestions.

From the field notes, we created a named design engineer (Tad) from the supplier, and particular team members (Jonathan and Susan) with whom he interacted. Their roles,

actions, and non-verbal expressions were consistent with the storyteller's perspective. The script, with stage directions in brackets, reads:

> Tad: [sounding off to the team] "We've built 100 of these and there has never been a problem. We always do a job to spec."
>
> Jonathan: [to Tad] "We know you follow our specs. Go ahead. Try it out. See what you think."
>
> Tad: "Oh well, OK." [Tad puts on gloves and pushes the hoist three times with increasing levels of effort] "Uhhh! Man! Well, you're right. This is too hard. There is a problem" [He turns and picks up his clipboard].
>
> Susan: [to Tad] "We have some suggestions for you on how to reduce the forces."

Just as we validated our understanding of the hoist issue by returning to interview the engineer a second time, we also sought to validate our script. Some feedback pertained to the dialogue among the character – for those interactions that were not well documented in the field notes. One of the union leaders pointed out, "They [plant employees] don't talk that way." We worked with this individual to make selected wording changes in the script so that the script reflected the general way in which plant personnel communicate with one another (e.g. replacing the word "you" by "you guys").

Performing a content analysis

We conducted a content analysis of the Hoist Story to identify the key cultural themes that emerged. The preliminary analysis revealed cultural disconnects or breakdowns as some of the characters engaged with each other in the course of doing their jobs. For example, the manager denied the engineer the opportunity to conduct a buy off, and then subsequently accused him of not solving the hoist problem. The engineer blamed the manager for not allowing the buy off in the case of the initial ridge rail and later shamed him into permitting a buy off prior to the installation of the second ridge rail. We also learn that the design engineer from the supplier arrived at the plant "with an attitude," reflecting his initial opposition to engage in problem solving with the team. The interactions between the engineer/team and the manager reflected, in part, the theme of power as it manifested itself within the plant's hierarchical structure. The poor quality of these interactions also can be attributed to the engineer's strong belief in the notion of empowerment. The engineer's belief was that the team (employees and the suppler), working together, would come up with the best solution to the hoist problem. These two opposing positions of hierarchy and empowerment led both to escalating conflict and long-term damage to plant relationships.

The Hoist Story also exemplifies the theme of collaboration. A cooperative orientation to the work was immediately evident in the way the engineer worked with the other plant departments (e.g. Ergonomics, Maintenance) and engaged the operators in problem solving. He took the time to solicit their input for a re-design of the ridge rail, and then used it to develop an appropriate engineering solution. While the engineer and team faced some initial difficulty due to the "attitude" expressed by the supplier's design engineer, they were respectful, proactive with their suggestions, and persuasive in their approach. By asking the design engineer to experience the hoist as the operator might, the team was able to secure his agreement in addressing all the problems associated with the ridge rail. Though the potential was present for the

team/supplier interaction to lead to significant discord, a "can-do" spirit pervaded the exchange which ultimately leads to the installation of an appropriate ridge rail.

Comparing the content analysis with the larger data set

Additional insights can be derived when stories are situated within the larger data set. In our case, we examined the story in relation to the four-quadrant Ideal Cultural Model and its associated cultural obstacles and enablers. The Hoist Story revolves largely around a disagreement about a particular work practice – the buy off. However, we know from our years of field work in manufacturing environments that the cultural breakdowns between the engineer and manager reflected fundamentally different orientations to getting the work done.

The clash that emerges in the Hoist Story illustrates the tension plant personnel were experiencing on their journey from a hierarchical and authoritarian past to a unified and cooperative approach in their "ideal" future. The story indicates that organizational members face key cultural obstacles in their quest to get as close as possible to an ideal plant culture including: cross-cultural conflict (between the engineer and the manager, each representing different functional areas in the plant, and initially between the engineer and the supplier), ethnocentrism (the manager's conviction about buy offs and unwillingness to consider an alternative viewpoint, and the supplier's view that there has never been a problem with his ridge rails), and resistance to change (in both the supplier's initial response to the ridge-rail problem, and the manager's subsequent response to conduct a buy-off after the ridge-rail was re-built).

The Hoist Story also is replete with enablers whose job is to mitigate the obstacles to organizational-culture change. The key Plant Environment enabler is improving ergonomic standards. Work Force enablers include exhibiting a people-centered orientation, demonstrating involvement and commitment, serving effectively in a given role, and responding to tasks quickly and effectively. Work Practices enablers encourage work-group problem solving, empowering employees, sharing and using lessons learned, setting clear expectations, sharing responsibilities, and providing support. Relationship enablers include proactive listening, showing respect, and creating a win-win orientation. All these enablers represent opportunities for action that can be taken by organizational members to accomplish their culture-change goals.

Sharing the story script and content analysis

Next, we began sharing the Hoist Story script and its analysis as part of presentations within GM's manufacturing function. In one discussion, we framed the Hoist Story in terms of "soliciting" vs "disregarding" cross-functional input (see Figure 2). The first column identifies those portions of the script where advice and input was sought. For example, the engineer solicited the views of the operators. Later, the engineer and the team asked that the supplier's design engineer try out the hoist and provide feedback. Cooperation pervades these cross-functional interactions. The second column represents those portions of the script where cross-functional input was disregarded. It occurred first when the engineer asked production management for permission to do a buy off. It occurred again when the engineer petitioned a second time to conduct a buy off. Ultimately the manager granted the request, though he did so reluctantly. When reading the story from start

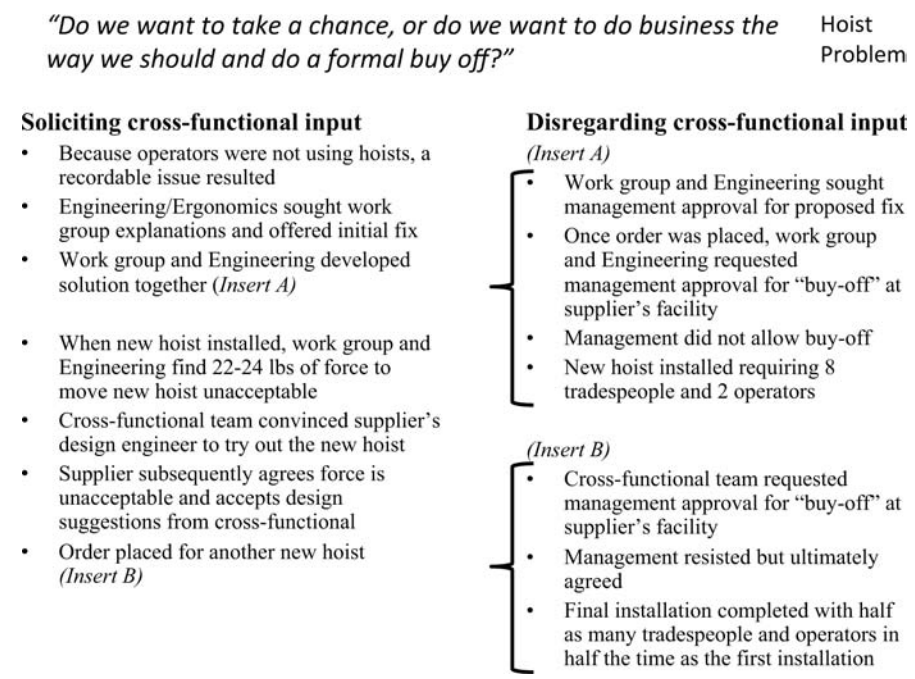

Figure 2.
The Hoist Story as a symbol of the functional divide

to finish, the sequencing is as follows: top of the first column to *Insert A,* followed by *Insert A* (top of the second column), and then bottom of the second column to *Insert B,* followed by *Insert B* (bottom of the second column).

Engineering and production management appear on opposite sides of the functional divide. This pattern is consistent with GM's longstanding history of autonomy in which organizational units such as functions are optimized at the expense of the larger whole – in this case the plant (Briody *et al.*, 2004). Our goal when sharing the Hoist Story was to raise awareness of the pattern so that attendees would be able to experiment with solutions that might perforate such organizational boundaries.

In a later discussion with a different group, we talked about the importance of securing consensus across functional and job classification boundaries to ensure plant effectiveness. This time we offered a "recipe" from the Hoist Story consistent with the overarching theme of collaboration emerging from the larger data set. The recipe was phrased as follows: Involve team members and other stakeholders in problem solving to increase the likelihood of a successful outcome – both technically (e.g. a ridge rail that works) and culturally (e.g. strong, healthy relationships). We commented on the benefits of following such a recipe: improving job satisfaction while reducing micromanagement, having a high confidence in the technical outcomes, and building and maintaining relationships within the work environment. We also used this presentation to reinforce collaboration as the single-most important feature in an ideal plant culture.

Transforming the Hoist Story into specific applications

As we refined our analyses and presentations for study participants, we started to compile story materials and other data with a similar focus. The result was the beginning of a series of ten stand-alone "applications" that could be used to address critical organizational-culture issues (see Appendix). The broad outlines of the Hoist Story appeared first in the "Story Packet," a tool that documents and analyzes stories to provide some explanation for the valued elements in plant culture. The Hoist Story's "recipe" as reported above was included in an application called "Recipes for Cultural Success."

Over time, these applications became known as "Collaboration Tools" since collaboration was the dominant cultural theme in the data set. The content, focus, and problem-solving exercises associated with the Collaboration Tools help plant personnel develop, strengthen, or maintain a culture of collaboration. The structure and flow of the Collaboration Tools are similar. Background material orients the user at the start of each tool. For example, it introduces a cultural problem that the tool can address. Next, a general description of the tool appears, along with the tool's goals and suggestions for how, when, and where the tool can be used. In the explanation portion of the tool the cultural problem is described and explained in detail. Insights are offered about ways of addressing the particular cultural problem. Finally, a set of exercises offering practice in cultural problem solving completes each tool (see Figure 3). The intent of the exercises is to reinforce the notion of working collaboratively and cooperatively with others in the work environment.

Adopting the script for use in plant training

About 18 months after we first heard the Hoist Story, we learned about a three-day training class that was intended to reinforce the concept of teamwork on the plant floor. One of the trainers contacted us and said his group had been charged with developing training material for employees who would be working at a new GM plant. The training built on the new plant's mission in which the concepts of empowerment and support were embedded, and on some team leader training conducted several months earlier. The trainer indicated that he was eager to show us their modules on building relationships among co-workers – a theme they adopted from the ideal culture project. This was the first time we were aware that study participants were actively integrating our work into their own.

During that meeting, one of the trainers mentioned the Hoist Story script.

> You'll see the Hoist Story as part of our training ... Basically we're looking at interaction skills, feedback fundamentals and conflict management... We also have a whole section on the Hoist Story. What makes this story great is that it is so realistic. [The consulting firm working with us] did have a few manufacturing examples that they played out with professional actors but most of their examples were from office environments so this example is much more appropriate for us ... What we hope the Hoist Story will do will be at least to start the dialogue about behavioral expectations.

Later in the meeting he indicated that the Hoist Story had been incorporated into their "capstone exercise," meaning that it would serve as the focal point for the discussion of team-related concepts and exercises. Interestingly, we documented the Hoist Story at another GM plant in the same region as this new plant.

Four days later, the first teamwork training on relationship building was completed. The following day we received this email from the lead trainer:

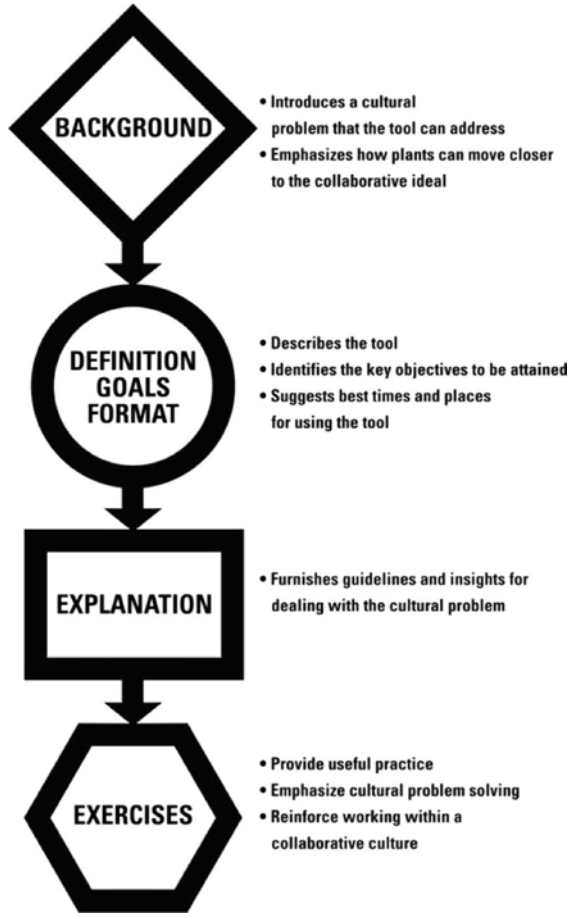

Figure 3.
Structure and flow of the collaboration tools

> The Hoist Story was well received by the participants. A group of folks are making a video tape of the script at the Body Plant this Morning for use by future training classes. People could easily relate to the characters and behaviors which provided the basis for some robust discussion and learning. It should be interesting as other classes are conducted. Thanks again for your support and help as we tackle the challenges of building a new plant and engaging the work force.

For us, the receptivity of the training participants signaled a validation of the cultural issues emerging in the Hoist Story and the ways in which organizational members sought to cope with them, rather than simply the validation of the story's narrative details.

Producing a video tape from the script

The email above indicated the plant's intent to make a video of the Hoist Story script. Within two weeks, we received confirmation that the video tape had been made and incorporated into the training program. According to the lead trainer, "It was filmed in

[the Body Plant] and is pretty good!" In a return email we indicated how pleased we were and asked for a copy. The video was a joint effort by both GM salary and hourly UAW[3] employees and had a running time of 14:56. Employees played the roles of the characters and performed the various pre- and post-production functions (e.g. narration, music).

Developing exercises for the video tape

The video was used towards the end of the training to gauge how well participants grasped the focus on relationship building. One agenda stated it this way: "The Hoist Story capstone activity will provide you with an opportunity to apply newly acquired skills in a case study situation." The lead trainer indicated, "We run the tape in scenes, and have the class members look for various aspects of GM core values . . . , [material] on interaction skills, and effective feedback." At the end of the video, groups of participants were responsible for completing three exercises:

(1) Step 1 involved evaluating interaction skills for success, the use of GM core values and enablers, or the use of feedback.

(2) Step 2 focused on examining how the Hoist Story "interactions appear to be impacting the situation."

(3) Step 3 required a presentation summarizing issues such as the core values that were at risk in the Hoist Story, and conflict resolution tactics that were used or should have been used by the characters.

Feedback from the lead trainer indicated, "It (the video and follow-up exercises) is a good learning tool and is being received positively."

Requesting conflict resolution material

Next, we received a request via email from the training staff for new course material from our data set. The email read:

> We are planning on developing a stand along Conflict Resolution training course . . . What we are envisioning as a potential activity is a role play very similar to the Hoist Story centering on how conflict starts and escalates and then how it can be resolved. Real world GM examples are very well received and identifiable. Please give this some thought and drop me a line.

Our initial response to this email was:

> Yes, we have other stories we can send you. [We are] finalizing a script for you . . . in which employees were asked to select a spot for the team room area, and then were told by management it was not acceptable. The story illustrates how the issue was solved.

This request opened up a new opportunity to encourage the evolution of the organizational-culture-change process in which this plant was engaged. We sent of the Marking the Team Room story script as promised. However, we believed that the Hoist Story script was the best example we had of both unresolved conflict (with the manager) and conflict resolution (with the supplier). We also thought that we could enhance the training exercises used after the Hoist Story video was shown.

Creating the workplace disagreements collaboration tool

The centerpiece of the Workplace Disagreements Collaboration Tool is the Hoist Story. It provides a framework for plant personnel to analyze and solve common conflicts within manufacturing environments. Whether used by individuals or groups, including facilitated discussions, this tool can be useful in learning about and developing strategies to deal with different types of conflict. Users of the tool can either watch the Hoist Story video or read the story script to understand the collaborative and confrontational behaviors associated with plant-floor interactions. The tool explores the different sources of disagreement among the story's characters – including divergent interests and expectations. It also examines the effects of the unfolding disagreements on plant working relationships, work practices, and output.

Three sets of exercises complete the tool. For example, the questions in Exercise B emphasize the importance of maintaining healthy, professional relationships despite the disagreement (see Figure 4); the questions point users to Appendix, which contains the Hoist Story script. These questions also introduce the technique of "what-if scenarios" in which users imagine alternative outcomes in lieu of what actually happened in the story, and then discuss the implications. The exercises, taken as a whole, enable users to explore conflict from several points of view and examine the impact of conflict on organizational members and their work culture. We passed on the final version of the Collaboration Tool to plant and manufacturing leaders as soon as it was completed.

Evolving to organizational applications

Rarely do stories get told in coherent, linear progression from beginning to end (Boje, 1991b; Czarniawska, 2004). Typically, stories undergo repeated transformations as they are told and re-told. We build on this perspective by suggesting that a single story can evolve into new cultural forms that include but are not limited to the narrative itself.

We label the cultural forms that emerged as applications or packaged products. They were developed largely in sequence, each one dependent upon and reinforcing its

Workplace Disagreements Exercise B

- Identify the kinds of techniques (e.g. strategy, communication, logic) that the Engineer and Team used in their negotiation with the Supplier *(Refer to Scene 4 in Appendix A)*
- Explain to what extent the techniques used with the Supplier also were visible in the case with the Assistant Superintendent *(Refer to the end of Scenes 2 and 3, and all of Scene 5 in Appendix A)*
  - If they were used, how successful were they?
  - If they were not used, how could they have been used?
- Rewrite the end of Scene 3 portraying both the Assistant Superintendent and the Engineer as less confrontational and more collaborative

Figure 4.
Sample exercise from the workplace disagreements collaboration tool

predecessors. The Hoist Story was the catalyst for the development of all subsequent initiatives – the story script, three Collaboration Tools, a video tape, and training exercises. The evolutionary course of the Hoist Story, from the initial telling to the resulting set of applications, is illustrated in Figure 5.

We call attention to the structural aspects of this evolution. Notable about the evolutionary structure is the way in which the elements are sequenced and layered. A certain linearity pervades the chain of actions (evident in the single-sided arrows) terminating when activities shift either from researchers to study participants, or from study participants to researchers. The structure mimics the "turn taking" associated with conversations (Boden, 1994; Drew and Heritage, 1992) or the "action chains" or sequence of events in which people participate (Hall, 1976). Change is embedded in these modifications in the conversational flow as the parties move their dialogue forward in unanticipated directions. Both researchers and study participants are necessary conditions for having a conversation, and both are fully engaged in the evolutionary process, reflecting the pattern co-production. Each kept seeing opportunities to shape the organizational-culture changes in particular ways and each played a distinctive role in contributing to that effort. Researcher actions (in bolded font) can be classified generally as analytical while study participant actions (in regular font) are largely pragmatic and resourceful. Some cross-exchange (evident in the double-sided arrows) appears at the turning points in the structure, indicating the saliency of those particular interactions as a new round of actions gets underway. Just as conversations switch from one party to the next, so too does the structure of the Hoist Story as it is transformed from a descriptive narrative to a powerful set of organizational-culture-change tools (Hall, 1976).

Organizational-culture change can result from and be sustained by the power of a story. The Hoist Story is strong evidence that stories not only have an individual

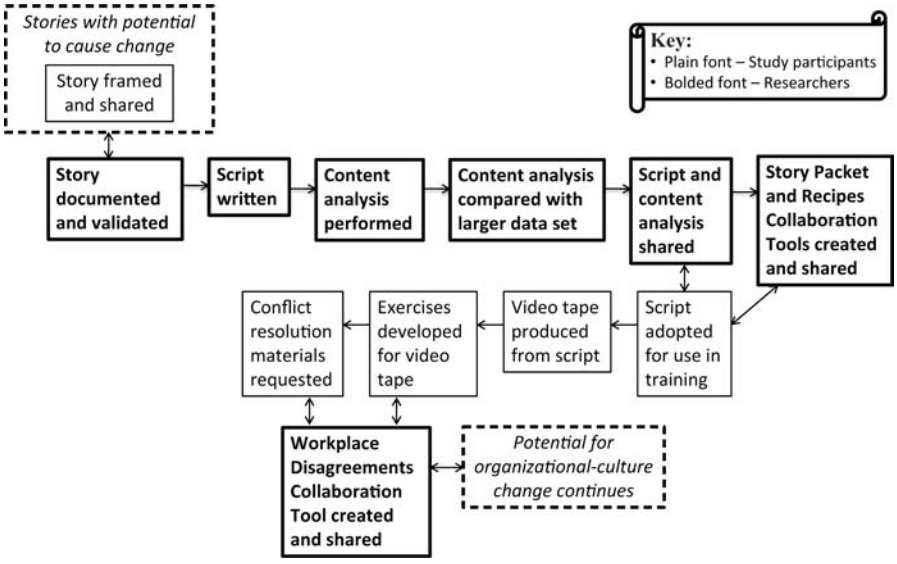

Figure 5.
A story's evolution to organizational applications

impact (Bryant and Cox, 2004), but an organizational impact as well. It provides a point of contrast with much of the management literature on "planned change" where change goals and processes are designed and delivered by top organizational leaders (Beech, 2000). The Hoist Story is an example of interactive and integrated change involving a cross-section of organizational members. It represents change "in the middle" or change at the "organizational core." The pattern of change, described as organic, serendipitous, emergent, and unplanned resulted in organizational buy-in – a critical ingredient in an organization's readiness for and ability to change (Fronda and Moriceau, 2008; Chreim, 2007; Armenakis *et al.*, 2001) – and packaged products that were developed and implemented. Rather than reflecting the hegemony of a managerialist approach (Vickers, 2008), the Hoist Story and its sustained impact actually reflected a consensus view of organizational members. The sculpting of manufacturing culture became a collaborative, participatory, and reciprocal effort between organizational members and researchers, while the sculpture that resulted symbolized the valued attributes of the ideal plant culture. This story had the effect of spearheading the change process so that that process was viewed as credible, relevant, and realistic – just as the story has been perceived.

Epilogue

Our research group has spent much of the last eight years on the Ideal Culture Project. In addition to research reports and a book (in preparation), we completed ten Collaboration Tools for use within GM's manufacturing operations. The tools, described in the Appendix, have been copyrighted and released for use outside of GM by organizations, institutions, and communities.

We have disseminated the findings and recommendations from the project throughout GM. We have worked with the senior manufacturing managers in the firm, as well as senior UAW leaders, to gather their views on the ideal culture project, raise their awareness of the availability of the Collaboration Tools, and garner their support. Knowledge of the availability of the Collaboration Tools grew during the validation and pilot testing phases. The tools have been finalized and delivered to manufacturing process leaders for formal inclusion within GM's manufacturing system.

Notes

1. The cultural transformation process is discussed in greater detail in Briody *et al.* (2010).
2. The Relationships quadrant focuses on healthy, positive interactions that are the glue cementing the organizational culture together. Work Practices stipulates how the work gets done by working together, recognizing success, and sharing information. Plant Environment consists of the location and inclusion of physical structures (e.g. bathrooms, team rooms) and technology (e.g. equipment) that nurture collaboration and effectiveness. Work Force emphasizes the people skills and technological competencies along with appropriate and sufficient training that reinforce a strong work ethic.
3. United Automobile, Aerospace and Agricultural Implement Workers of America.
4. The Collaboration Tools are described in detail in Briody *et al.* (2010).

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Appendix

We developed ten applications or tools to assist manufacturing employees in moving towards and reinforcing their cultural ideal – a culture of collaboration[4]. Consequently, we refer to these applications as the Collaboration Tools (Briody *et al.* 2007; Briody *et al.*, 2008). The tools are grouped based on their primary function: understanding collaboration, practicing collaboration, measuring collaboration, and making decisions consistent with a culture of collaboration.

Tools for understanding collaboration

Four tools help promote an understanding of the critical elements of an ideal plant culture and how plant cultural conditions can be improved.

- Ideal Cultural Model – This tool is the foundation for all of the Collaboration Tools. It provides a conceptual view of the ideal plant culture – one based on a culture of collaboration – from the standpoint of GM employees. The Ideal Cultural Model consists of four quadrants – plant environment, work force, work practices, and relationships – into which all named features of the ideal plant culture can be categorized. Collaboration emerges as the central theme and encompasses the elements of unity, cooperation, and joint work.
- Cultural Toolkit – This tool describes and explains the primary elements of the Ideal Cultural Model, identifies the obstacles that will be encountered in trying to improve plant culture, and specifies the enablers that can help enhance plant culture and cooperation. The Cultural Toolkit focuses on cultural change and the mechanisms for achieving it. The exercises can be used as a problem-exploration process, or as a specific problem-solving instrument. They are designed to be action oriented, moving from problem identification to problem resolution.
- Story Packet – This tool includes a set of plant stories that highlight a variety of topics and issues pertaining to an ideal plant culture. The stories illustrate examples ranging from the "old way" to those reflecting the ideal. The exercises are designed to facilitate cultural learning and evolution towards the ideal by providing examples of desired behaviors contrasted with "warning" stories from current (or past) plant culture. The exercises use the Ideal Cultural Model to suggest ways to move towards "walking the talk."

- Recipes for Cultural Success – This tool offers a set of guidelines for the behavior of all plant personnel as they move towards, and attempt to maintain, a culture of collaboration based on the Ideal Cultural Model. It helps plant personnel cope with change by providing a Ready-Reference Card of preferred behavioral qualities in effective plant cultures. It is also useful in helping plant personnel understand the value of and expectations associated with a culture of collaboration.

Tools for practicing collaboration

Three tools help employees gain collaborative skills and practice in achieving ideal cultural goals.

- Collaborative questions – this tool provides training in a technique that individuals can use to ask questions when there are issues that need to be solved in their work environment. It emphasizes the importance of asking questions in a neutral, objective way so that collaboration is enhanced. It also improves plant personnel's abilities to ask open-ended, non-judgmental questions so that they may obtain more complete, detailed, and accurate information, and make better decisions.
- Cultural "Hot Spots" – this tool provides a procedure for opening up discussion on known cultural clashes in the work environment so that potential solutions to those clashes can be developed, and the positive elements of the ideal culture can be reinforced. It is particularly useful when work groups identify and deal with ambiguous situations – including the interface of two opposing themes (e.g. empowerment and hierarchy; standardization and innovation). Plant personnel can test, and subsequently modify, the solutions they create so that they can contribute as effectively as possible to plant operations.
- Workplace disagreements – this tool focuses attention on addressing conflict. It includes a video in which one of the key stories collected during the Ideal Culture Project is reenacted. The exercises are designed to help individuals and groups analyze and manage typical work-related disagreements so that any damage to plant relationships, processes, and work output can be addressed quickly and effectively.

Tools for measuring collaboration

Two tools measure current conditions and the movement of groups and individuals towards an ideal culture of collaborative effectiveness.

- Work group relationship metrics – this tool consists of a set of work-group-level metrics that measure seven elements of positive relationships (based on the Ideal Cultural Model) for a work group or multiple work groups. It focuses on work group dynamics by examining key attributes of work group effectiveness. The exercises provide a process for identifying which elements of within-group or between-group relationships are positive (for reinforcement) or negative (and needing change). The tool's exercises have a process for working through the cultural obstacles and enablers to strengthen the positive metrics and/or reduce the impact of the negative metrics. Work groups can develop recommendations to maintain their strengths and/or improve their weaknesses.
- Individual relationship effectiveness metrics – this tool is designed to help individuals measure and then either reinforce or improve their workplace relationship dynamics. It provides input into the collaborative abilities and behaviors of an individual, along with the actions he/she can take to create and sustain strong, healthy relationships at work. Plant personnel can examine aspects of their own everyday actions and activities (e.g., engaging in positive interactions, working together on work tasks) and track changes in their behavior over time.

A tool for making decisions consistent with a culture of collaboration
One tool teaches and reinforces collaborative actions and ideals.

- *ExplorePlantCulture* computer game – this game enables players to learn about the impact of their decisions on plant culture. It showcases an actual observation of a stud gun breakdown in a GM plant and the aftermath associated with its repair. Players make decisions for the game's characters. Each decision is scored on two key elements of plant culture – Relationships and Work Process – with a cumulative score and the explanation for that score at the end of each game.

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