# Leadership Moments From NASA

Tags: #spaceflight

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## Dialogue

What motivated you to get this out into the world?

Why look at NASA?

1. It's public.
2. It's complex - so many stakeholders and can't do spaceflight alone.
3. It's high stakes.

**The value of introspection in leadership.**

Technically achieving the goals vs. actually working as a team. What changed as you did training for spacewalks?

Sleep deprivation.

**The value of speaking up — and listening.**

Apollo 12 - John Aaron story.

> "I think sometimes we remember the things that went really bad, but then we don't remember some of the things that really went well." That's a comment Bill Gerstenmaier, then NASA's associate administrator for human exploration and operations, once made about mission management in general.

**Movement away from a "single heroic leader" and towards leadership, followership, and teamwork**

The International Space Station has been an extraordinary success. But it didn't start that way. Freedom.

Ask --> Dan Goldin's call to George Abbey and the weekend that the team spent redesigning Freedom into what would become ISS.

What have you changed your mind on?

## Quotes

*Highlight [222]:* "I think sometimes we remember the things that went really bad, but then we don't remember some of the things that really went well." 1That's a comment

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*Highlight [250]:* Ed Schein, Emeritus Professor at the MIT Sloan School of Management, is a global expert on organizational culture who feels that understanding corporate culture is a much more complex undertaking than attributing it to "the way things are done" in an organization. 9He has described three elements of culture: artifacts, espoused values and basic organizational assumptions. Artifacts are visible indicators evident in and characteristic of the work environment. At NASA, visible indicators are everywhere and reflect the profound commitment of the workforce and their pride in what NASA has accomplished. When Dan Goldin got rid of the "worm" logo in favor of the original "meatball" logo, the unspoken message was a return to the Apollo-era culture and its commitment to competency, controlling risk and data-driven decision making. The NASA meatball had evolved from a logo to a brand, a brand defined by pride in operational excellence.

*Highlight [253]:* The deeper NASA culture would be described by Schein as the underlying assumptions that "really drive behavior." Those assumptions may be inherently obvious or more subtle and they reflect what has worked in NASA's history: tough, competent, speaking up, doing the right thing, truth, integrity. They are learned, lived through peer-to-peer communication, leadership and followership. They are critically dependent upon how leaders use power, positional authority and influence. Despite the learned value of speaking up, the first time a leader ridicules, or directly, or indirectly punishes someone for speaking up, information flow dries up. If dialogue and debate are permitted to become personal, the incentive to share ideas disappears. Corporate situational awareness is critical for leaders. Just as the astronauts, mission control teams and pilots have to maintain operational situational awareness, leaders must understand what is really happening in the organization to be effective. One of the NASA leaders with the best corporate situational awareness was George Abbey.

*Highlight [259]:* There are essentially three different outcomes when leaders influence others. Leaders may have a minimal impact, negative impact or positive impact on an organization. Those leaders committed to achieving organizational excellence are typically introspective, continuously asking themselves if the approach they are taking is working. The introspective leader quickly realizes that the effect they are having on the organization can be either positive, neutral or negative. Large organizations have an element of inertia and tend to resist change, just as a large rolling ball exhibits the property of inertia described by Newton in his first law of motion. Objects and people tend to "keep on doing what they're doing" unless acted upon by an external force. Some leaders either don't aspire to or never find an approach to change the organization they are leading, and things continue as they always have. In some cases that might be appropriate in the short term, but over time there are few organizations that are not required to change and adapt, to approach new challenges with innovation and agility. When a leader is able to provide positive influence working with a team, problems are solved, challenges are overcome, and organizations grow.

*Highlight [260]:* Introspection can also help leaders determine if they are having a negative influence on an organization. Both positive and negative change can be met with pushback from the organization and pushback alone doesn't help leaders understand if they are going in the right or wrong direction. Recognizing that bad leaders, and occasionally even good leaders, can take an organization in the wrong direction, the best leaders create time for a solo daily debrief to thoughtfully assess how things are going. Reflecting on the opinions of trusted colleagues, careful consideration of objective performance metrics and a simple willingness to consider the possibility that things may be going in the wrong direction are all important in ensuring ultimate success. It is also worth considering the process of organizational influence. Modern leadership is moving away from the idea of a single heroic leader who guides the organization towards the concept that optimum results are achieved through leadership, followership, teamwork and a sustained commitment to competency. Every organization has a hierarchical chart of its management structure and it is frequently one of the first few slides in a corporate presentation. Let's forget for a moment the merits of leaving the org. chart in or taking it out of a pitch deck. Given that most large organizations are hierarchical, it is appropriate to focus on the nature of influence in those organizations.

*Highlight [261]:* Incorporating a core value of speaking up into corporate culture works. It helps high-stakes organizations succeed, but only if leaders listen. Tied to speaking up is the idea of listening up, for leaders to thoughtfully assess the information that they have been given when making their decision on how to proceed. Despite the many personality differences of the NASA leaders, a common attribute associated with their success was a willingness to listen, to encourage discussion and debate in the analysis of best available data to make the best possible decision. In a high-stakes operational environment where readiness is critical, misinterpreting the data or downplaying what the data is saying in favor of meeting schedule pressures or other corporate objectives can be perilous.

*Highlight [262]:* In most organizations, downward influence is thought of as traditional leadership. It can range from bosses who influence by telling others what to do to leaders who work with their direct reports by listening, learning, mentoring, trusting and using objective data to assess performance while ensuring accountability. Effective leadership can create new opportunities, jobs, economic growth and prosperity, while ineffective leadership can have catastrophic consequences. Perhaps that is why a whole industry has grown around teaching leadership, in trying to replicate what has worked rather than understand why it has worked. Barbara Kellerman, founding director of the Kennedy School's Center for Public Leadership, has challenged the status quo in her book The End of Leadership, asserting that the focus should shift from the concept of single heroic leaders to a broader understanding of leadership, followership and context in helping organizations achieve peak performance. Looking at influence within organizations from a broader level may help leaders contextualize their role in achieving desired outcomes.

*Highlight [264]:* Many senior leaders have learned that there are influencers within an organization who do not have designated leadership roles. Their names do not appear on the org. chart, they have no official leadership responsibilities or authority, yet they have significant influence in the organization. These individuals are highly respected by their peers for their competency, their willingness to mentor, their knowledge of corporate culture and their commitment to doing what's right. George Abbey understood the importance of knowing what was really going on. To succeed, leaders need to know what is really happening within the organization. Ideally that information is provided through the regular management channels, but it is easy for some to fall into the trap of telling leaders what is working and not disclose what is not working. Those who worked directly with Mr. Abbey knew he wanted to know what was working, what wasn't working and if that were the case, what the plan was to address the issue with metrics to assess progress.

*Highlight [267]:* It can be helpful to think of a continuum from authority at one end to influence at the other. The different leadership styles fall on different parts of the continuum with directive and pace-setting styles more aligned with leading through power and authority while visionary, affiliative and coaching/mentoring styles are more aligned with leading through personal influence. It is virtually impossible for a successful leader to use only one leadership style: the goal for leaders is to develop a repertoire of leadership styles that they can select from dependent upon the situation. Strategic planning aligns with visionary leadership while selecting for and building competency requires a coaching/mentoring leadership style — the best leaders understand situationally specific leadership and are flexible in their approach. While many leaders focus on leading through personal influence, a willingness to selectively use power to deal with poorly performing individuals or to do what an organization needs done is important. Fortunately, NASA had many highly effective leaders able to mentor others on that subtle art.

# References

Notes prepared by Dave Stachowiak at CoachingforLeaders.com