Paper PM06

Mistakes Managers Make Managing Data Scientists that You want to Identify and Prevent

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ABSTRACT

Managers are people with all of the feelings, emotions, and human issues evident in every staff member. It is these human qualities that lead to significant mistakes that Managers make with the people under their leadership. Management skills are not innate traits in most humans and many managers lack the fundamental skills, including the soft skills, and training essential for effectively leading a team of data scientists. We also need to recognize that many managers also lack sensitivity, awareness, and the core values essential for effective interaction with people.

Management skills and techniques are easier to teach; Values, Beliefs, Attitude, and Humility are much harder to teach, and significantly more difficult for managers to learn. Yet, these characteristics are the underlying skills that guide the success of a manager. Research has consistently demonstrated that the very best managers fundamentally value and appreciate those people working on their team. Research has also consistently shown that managers are blind to the fact that they are making fundamental mistakes in managing the people in their charge.

With all of this in mind about managers, identifying and preventing management mistakes is critical to the success of a manager and an organization. In this paper I present common people management mistakes you will want to identify and prevent, along with some solutions for aiding a manager's success in managing data scientists. I also present a discussion on the characteristics critical when an organization is selecting managers to manage data scientist teams.

INTRODUCTION

In the world of clinical data sciences we have a community of highly skilled, educated, culturally diverse people from all over the world who come together and work on teams. These teams are not made up robots, but are made up of individuals who have to think about the mired of information presented to them to program, analyze, and report results from development programs. To be successful in delivering high quality clinical data sciences requires both leaders and managers. The main difference between "leaders" and "managers" is that a leader will have people willingly follow them, while a manager has people who work for them, and is primarily a task manager. In order to have a successful data sciences team the person in charge needs to be both a strong leader and manager to get the team onboard to deliver a successful data sciences product: namely accurately collected, appropriately analyzed, and succinctly reported clinical data.

Most organizations promote people into manager positions with very little thought on the dynamic need to have both a strong leader as a manager. When people are promoted into these "manager" positions then a significant part of the job is to supervise a person or a group of people. Most new managers often wonder if they have the supervisory skills required to adequately become a successful manager (leader). Even experienced managers (leaders) struggle with the skills required to manage a data sciences team. Often times some of the people on your team will be your friend, and you need to keep being their friend, as well as now being the supervisor. A manager will want to be an effective leader, someone who gets the job done and keeps a good and well-motivated team.

However, it is a false assumption that managers and leaders are the same thing. Every "leader" may not be a good manager, but every "manager" must be a good leader. Any manager who lacks effective leadership skills will drive a data sciences team into chaos faster than you can blink an eye. Moving from a "manager" to an effective Manager/Leader does not happen just because one is promoted into that position. It takes time, mentoring, coaching, and learning from making mistakes. At some point all Manager/Leaders will make one or more of the mistakes outlined in this paper. The process to identify and prevent making managerial mistakes with data scientists is a grey area and there are no right answers to each item. However the mistakes managers make that are outlined in this paper can be identified and prevented early in a Managers career, with proper mentoring, coaching, and a great deal of humility.

RESPONSIBILITY, ACCOUNTABILITY, AUTHORITY

Every task, or project, that a data scientist or data sciences team tackles comes with equal levels of "Responsibility", Accountability" and "Authority". One might think of these three traits as an equilateral triangle where all three components are equal (Figure 1). When this three sided triangle no longer has equal sides (ergo: unequal levels of responsibility, accountability, or authority) then mistakes have occurred, processes have suffered, projects get delayed, and staff generally are unhappy. More often these mistakes originated as a result of a Manager making the fundamental mistakes.

Figure 1. Responsibility, Accountability, Authority Paradigm.

The level of responsibility, accountability, and authority is commiserate with the person (or persons) completing the task or project. Inexperienced staff will have a lower level, whereas more experienced staff will have significantly greater levels. It is the responsibility of the manager to determine the level, such that each individual understands that they will be responsible for a particular task, and that they have appropriately equal levels of accountability for delivering, and most important the authority to implement the task. When managers do not identify and promote equal levels of responsibility, accountability and authority for the task on a data sciences team then they are making fundamental management mistakes. Highlighted in the next couple of sections are common mistakes that managers make as a result of an unequal triangle of accountability, responsibility, and authority.

COMMON MISTAKES MANAGERS MAKE MANAGING DATA SCIENTISTS

TREATING STAFF AS ROBOTS, NOT AS PEOPLE

Managers (often times new managers) are so focused on the data sciences task at hand that they forget they must get staff to collaborate, communicate, and cooperate in delivering: hence they treat staff as robots to get the task done. A common mistake is that managers fail to get to know staff as people: people with a work and home life, people with all the human issues that the manager also experiences. Developing a relationship with reporting staff is a critical factor in managing. You don't want to be your employees' divorce counselor or therapist, but you do want to know what's happening in their lives. When you know where the employee is going on vacation or that his/her kids play soccer, you are taking a healthy interest in your employees' lives. Most staff want to experience a human interaction with their manager, and research has consistently showed that treating staff as robots, not as people, will lead to disparate levels of responsibility, accountability and authority with individuals on the team.

Knowing that the dog died and expressing sympathy, or that his/her daughter won a coveted award at school and expressing congratulations, makes you an interested, involved, and empathic, boss. Knowing employees as people will make you a better manager, a manager who is more responsive to employee needs, moods, and life cycle events.

How do you correct this mistake? Every manager also has a boss, who should be coaching, guiding, and even mentoring a manager to be successful with his/her staff. The manager's manager should watch the interactions between a manager and staff to see if staff is treated as robots and appropriately counsel and correct. If the manager's manager treats their staff as people, then more often than not the manager making the mistake will want to mimic the behavior of their boss.

INEQUALITY IN TREATMENT

Not treating all employees equally. You don't necessarily have to treat every employee the same, but they must feel as if they receive equal treatment. The perception that you have "pet" employees or that you play favorites will undermine your efforts to manage people. This goes hand-in-hand with why befriending reporting employees is a very bad idea! If you as a manager have an "inner circle" of employees then you have made a fundamental relationship mistake as a Manager/Leader. Employees who are not in your inner circle will always believe that you favor the employees who are — whether you do or not. This perception destroys teamwork and undermines productivity and success.

How do you correct this mistake? If an employee or other colleague brings this type of behavior to your attention, or worse you start to see staff leaving or not communicating then you need to take a step back, have a little humility, and examine how you treat friends who are staff, and staff who are not necessarily friends. You must stop this behavior or you will lose control and productivity of the team.

CLEAR DIRECTION

Fail to provide clear direction. Managers who fail to create standards and give people some clear expectations such that staffs know what they are supposed to do, and wonder why they fail. If you make every task a “top” priority, people will soon believe that there are no priorities. More importantly, they will never feel as if they have accomplished a goal or completed a project. When providing clear direction and setting expectations, if you are either too rigid or too flexible, your reporting employees will feel rudderless. You need to achieve an appropriate balance that allows you to lead employees and provide direction without dictating and destroying staff empowerment and engagement.

How do you correct this mistake? This is entirely up to the manager to identify and correct. It is strongly recommended that managers use communication with staff on an individual basis to seek clarity of understanding of directions and priorities. The manager must routinely ask non threatening questions like “What are your priorities for the next several weeks?”, or “Is it clear what you and our team must get done to deliver on this project?”, or my favorite: “What clarity or information from me would help you with this project?”.

TRUST

All managers should start out with all employees from a position of trust. (This shouldn't change until the employee proves themselves unworthy of that trust.). When managers don't trust people to do their jobs, then the equilateral triangle of accountability, responsibility, and authority will most definitely be out of balance. A lack of trust on the part of the manager plays out in a number of injurious ways to both staff moral and team relationships. Managers must understand that trust works two ways: staff must trust their manager, and the manager must develop trust in the staff. One clear example of a manager clearly demonstrating a lack of trust is micromanaging a team. Constantly checking up on a team at every little point, or singling out an individual too micromanage on a team is not developing a trust relationship. Treat people as if they are untrustworthy: watch them, track them, and admonish them for every slight failing, because a few people are untrustworthy leads to a significant common mistake.

How do you correct this mistake? You inform staff that each of them has an appropriate level of accountability, responsibility and authority for the task (or project) at hand. You provide them the tools to be successful within the three equal levels and you trust that they will be successful. If a staff member demonstrates that they cannot be trusted then you have a private conversation and change the level of accountability, responsibility, and authority. Managers who are blind to the fact that they outwardly demonstrate a lack of trust to their staff will have a hard time being successful a manager/leader. If a staff member or manager/leader colleague speaks to you and indicates that you are no demonstrating a trust behavior then you really need to look deep inside your core to discover why this exists and modify your attitude and behavior.

LISTENING

Fail to listen to and help employees feel that their opinions are valued. Active listening is a critical management skill. You can train managers in listening skills but if the manager believes that listening is a way to demonstrate that he or she values people, training is usually unnecessary. Listening is providing recognition and demonstrating your values in action. When employees feel heard out and listened to, they feel important and respected. You will have much more information that you need when you daily open the floodgates. I like the saying “God gave us two Ears, Two Eyes, and One Mouth --- We must use them in proportion!” That means we should be making eye contact and listening 80% of the time with a staff member, and taking about 20%. Behaviors that show you are not actively listening include but are not limited to: (1) fidgeting and not looking interested, (2) looking at papers or not making eye contact when communicating with staff, (3) and, one of my favorite bad behaviors, answering or looking at a cell phone in the middle of our conversation. There are many more bad behaviors that demonstrate poor listening skills. Over the years I have developed a habit that if the person I am having a conversation with demonstrates that they are not listening then I will get up and leave and politely indicate that when they have time to listen such that we will not be interrupted I am happy to meet at that time.

How do you correct this mistake? Training, practice, and more practice. A manager who does not have good listening skills will never be successful in managing a team of data scientists. Seek assistance and counseling on how to be a better listener.

DECISION MAKING

Manager who make decisions and then ask staff for their input, after the fact, have created a situation that clearly demonstrates they do not value input and feedback. You, as a manager, can fool some of the people some of the time, but your best employees soon become very wise to you lack of respect and drop out. Good luck getting those employees to engage again in any decision making requiring the collective wisdom of the team. Along the same train of bad behavior, if you create hierarchical permission steps and other roadblocks to the equilateral triangle of responsibility, accountability, and authority that demonstrate to staff that their ideas are subject to veto you will eventually wonder why no one has any suggestions for improvement. Enabling people to make decisions about their work is the heart of employee empowerment and the soul of employee engagement. Don't throttle them!

How do you correct this mistake? This is a combination of training, counseling, building trust and respect, and more importantly humility. If staff are not engaging and not openly communicating with decision making then you need to seek assistance and additional training.

REACTION TO PROBLEMS AND ISSUES

Fail to react to problems and issues that will soon fester if ignored. Managers have a habit of hoping that an uncomfortable issue, employee conflict or a disagreement will just go away on its own if they don't provoke it or try to resolve it. Trust me when I tell you that these problems do not go away on their own! Issues, especially among people, just get worse unless something in the mix changes. Proactive intervention from the manager to coach, mentor, listen, or to make sure employees have the skills necessary to resolve the issue, is imperative. Drama and hysteria do interrupt productivity, motivation, and employee engagement. Trying to be good friends with employees who report to you can be a real problem when issues and problems arise. You can develop warm and supportive relationships with employees who report to you. But, you will have difficulty separating the reporting relationship in friendship separating the reporting relationship in a friendship. But, Friends gossip, go out together and complain about work and the boss. There is no room for their manager in these kinds of relationships.

How do you correct this problem? A manager must clearly and cleanly separate a reporting relationship and friendship and must communicate such to friends who are also employees.

COMMUNICATE EFFECTIVELY

Fail to communicate effectively. The best communication is transparent communication. Sure, some information is company confidential, and personnel information is always confidential and never discussed among staff. You may have been asked to keep certain information under wraps for a while, but aside from these rare occasions, share what you know with staff. Staff wants information and they want to be informed. All of the information you share in a transparent manner will lead to better decision making by both individuals and teams. Ask for feedback, too. Ask people for their opinions, ideas, and continuous improvement suggestions, and if you fail to implement their suggestions, let them know why, or empower them to implement their ideas themselves. If you as the manager hide or withhold important information you will lose both the trust and respect of your staff.

How to correct this problem? Training, practice, and more practice. Experience will also come into play with this trait. Over time managers learn they must communicate effectively to be successful.

TEAM

Data Sciences teams work together, train together, and succeed or fail together. There is a powerful and productive force in a team. Teams are made up of individuals and include a manager/leader. The biggest mistake, and usually a fatal mistake, is to throw an employee or team "under the bus" when mistakes are made or something goes wrong. I am reminded of a quote from a Commander of a Navy submarine that I heard once about leadership of a team: "A leader must recognize that when things go wrong (or mistakes made), and eventually something will go wrong, the leader must remember that "poop" does not roll down hill and must stop with the leader". Rather than taking responsibility for what goes wrong in the areas that you manage and blame particular staff when asked or confronted by senior leadership will always result is a loss of respect, trust, and team. When you know the responsibility is ultimately yours if you are the boss, why not act with dignity and protect your employees? When you blame employees, you look like a complete idiot and your staff will have no respect for you, and eventually leave. Trust this fact: If you throw a staff member under the bus your team will find out and they will never trust you again. Staff will always be waiting for the behavior to happen again. Or worse, staff will tell all of their employee friends about what you did. Your other staff members will then distrust you, too. Your senior managers will not respect you either. They will question whether you are capable of doing the job and leading the team. When you throw your employees under the bus, you jeopardize your career, not theirs. And, it won't remove one bit of the blame from your shoulders.

How do you fix this problem? Remember, you as a manager leader come with a reputation, but the reputation doesn't necessarily include trust. It includes an assumption of competence. Sometimes it includes negative things. People might be afraid because they hear you're a hard-ass or difficult person to be around. Regardless, the number one thing you can to do is develop personal relationships with your team. You can exhibit trust in small ways. In a conversation with your team, if somebody asks for a decision, you might turn to a staff member and ask them to handle it. Don't ask for specifics, and trust they will get the task done, and then totally back them up if something goes wrong. Everybody else sees it. The message is: "I trust you guys to handle this stuff," and that can grow virally throughout an organization. Lastly, Practice the following axiom: "Praise your staff and Team publically, and if needed in a quiet private conversation offer criticism or council". Never through staff under the bus! It is a fatal mistake!

MISTAKES YOU DON'T EVEN KNOW YOU'RE MAKING

When a person takes a promotion to a manager/leader it is like starting all over again at the bottom of the ladder, learning new skills, new responsibilities, new experiences, and new growth opportunities. Making the move to a manager/leader isn't just a single step on a career path for some people, for many it's a giant leap off a cliff and into the abyss. In the words of Marshall Goldsmith (internationally respected executive coach): "What got you here won't get you there." It takes a whole different skill set. Most new managers learn the basic do's and don'ts quickly, like resisting the urge to brag about how experienced you are and encouraging your employees to suggest new ideas. But some mistakes are subtle and hard to see, much less correct. These are the ones that can throw you off before you even get going because no one tells you about them. Here are seven of those "invisible" new manager mistakes that you'll want to be sure to correct immediately:

1. You Listen, But Don't Watch
People share their feelings with a lot more than just words. They also communicate unconsciously through body language. New managers can be so focused on listening; they forget to observe what people say through their actions. Say you've given someone a challenging assignment and ask how it's going. They respond quickly with, "fine," but you also notice they're wiping their forehead and rapidly tapping one foot up and down. You sense anxiousness. Don't blow-off your observation; follow up. Do they have any questions? Is it going how they expected? Can you provide any additional support? Knowing what's actually going on will make it easier for you to help them be successful.

2. You Fake it to Make It
You're a new manager, not a seasoned veteran. No one is going to think badly of you if you need to ask for clarification. In fact, others are far more likely to judge you harshly if you pretend everything's going perfectly and then botch a job because you didn't ask for help. Be confident when you know you've got it, but be real and tell your boss or team the truth if you're doing something for the first time. It is also alright to tell your team that you do not have all the answers. If you do not know an answer tell them "I do not know, but I will try my best to find that answer".

3. You Micromanage
There's a big difference between assigning someone a task and then monitoring their progress, and micromanaging them every step of the way. A good manager/leader shows people it's OK to come to you if they need help and also gives them room to do the job the way they want to do it: They don't hover. People who feel micromanaged tend to do one of two things. They quit (or transfer) so they can work for a manager who gives them room to do their jobs, or they check their brains at the door because they know you're going to over-control how they do things. To break free of this bad habit, allot more time to assigning a project. Instead of simply handing it off, take the time to share your vision and goals, allow time for questions, and schedule regular check-ins. If you've provided a clear path forward with scheduled checkpoints, it'll be less stressful for you to trust your employee.

4. You Lose Sight of the Big Picture
Yes, you want your team to function like a well-oiled machine, but don't let tunnel vision stop you from seeing the big picture. Beyond meeting your goals, be sure you understand how your team's function connects to the mission and strategy of the whole organization. Then, share it with your employees. When your team knows how their work contributes and connects to everything else, they'll make better decisions.

5. You Say "Yes" to Everything
It's not your job to scoop up every new assignment that comes down from above. If you get sucked into too many low-level tasks, you'll neither be available no capable of working on the big stuff that requires more of your skills. Know the difference between working hard and working smart. If your boss asks you to do something that doesn't seem like a good fit, ask questions. Do they specifically need your eyes on it? Would it make sense to delegate it so you'll have more time for something of greater importance?

6. You Only Manage Down
Too many new managers are so focused on doing a good job building strong relationships with their team, they forget to spend any time communicating with their own boss. Don't assume that because they know how to manage your role, they automatically know how to manage you. Teach your boss about your strengths and weaknesses, what motivates and de-motivates you, and your preferred communication strategies.

7. You Treat Everyone the Same
There's a difference between treating people fairly (which is essential) and treating people the same (which is a big time rookie mistake). People are unique, and each of us likes to be seen for our special gifts or unique qualities. Strive to understand what matters to each of your employees. For example, some people come in on Monday morning hoping you'll ask about how their kid's soccer team over the weekend. Others see asking about their personal lives as an invasion of their privacy. Learn what matters to your people, even if it means miss-stepping by asking too much or not enough. (This is where you'll want to apply those other skills, like watching their body language and asking for feedback.) Even when you screw up, they'll notice you trying to meet them on their terms and they'll appreciate the effort.

SOFT SKILLS MATTER WHEN MANAGING A DATA SCIENTIST

How do you get promoted into a management role? Many ways exist, but most often, you are promoted into a management role because you are "technically" good at doing the job. That makes sense; you don't want an employee with experience as a sales person promoted to a position as a manager of clinical data scientists. It's hard to manage people when you have no idea what their tasks are. But, a big problem occurs when you promote your best "doer." The problem is that doing is not at all like managing. Managing requires a strong set of soft skills in addition to the "technical" skills. Soft skills are the most significant skills a manager needs to have. This may seem shocking as you want your best data scientist to become the data sciences manager, right? Wrong!. How is this promotion best using their skills? Here's why you need to consider soft skills when promoting employees to management positions. The following traits have been identified as the top soft skills hiring managers must seek when hiring or promoting someone to a manager's role:

- Acting as a team player
- Flexibility
- Effective communication
- Problem-solving and resourcefulness
- Accepting feedback (and learning from that feedback)
- Confidence
- Creative thinking
- Humility

Every single one of these soft skills is critical to management success. What do you do when one of your staff members comes down with an illness on the day of a big data delivery? You can't make that person come to work anyway; that is disastrous, unfair, and unhealthy. So, the manager needs to act as a team player and with flexibility. Who can substitute for the sick employee? How do you solve this problem? If your communication with the employee is effective, you have a good idea of what your sick employee was completing for the data delivery. And, if you have to walk into the meeting and present the data delivery when you're not fully prepared? That will involve the application of your best soft skills. The presentation is going to take creative thinking and a display of confidence on your part.

Soft Skills Are Critical for Effective Management

Use of management soft skills effectively can sound like an impossible dream. But, it's not. These soft skills are simply critical skills for all managers to work on regularly. You should not limit a managers annual goals to issues that involve straight productivity (how many data deliveries did you produce?). The annual goals should include goals and measurements that involve assessing and rewarding the development and application of these critical soft management skills. It is one way to successfully provide management development for your managers.
For example, if a manager isn't a good communicator or struggles with flexibility, then providing training is a priority. While some people naturally have these soft skills, not everyone does, but with mentoring and coaching, everyone can improve their soft skills with commitment. A manager, though, will not know that they need to improve if they do not receive the proper feedback, coaching, and training.

Management Soft Skills Affect Employee Selection and Training

Your staff won't know how they need to improve either if a manager can't provide the necessary feedback. To provide effective feedback, the manager needs to have developed good soft skills. You can easily see the problems that can happen when people are promoted just because they're technically good at their job. If your manager lacks the soft skills necessary to become a successful manager who can effectively develop and motivate employees, you have created a problem. And then, if that unsuccessful manager hires another manager to work with her, they are not going to understand the importance of soft skills in a manager. So, they will not screen potential candidates for their ability to apply the soft management skills on the job. That's how you create an even bigger problem. It is how data sciences organizations can end up with a whole lot of bad managers. Hard skills are great, but for managers, the soft skills are the most critical part of their success. Make sure that you're screening, coaching, mentoring, and training for these crucial soft skills. Good managers who effectively practice soft skills create an environment that is conducive to better, healthier, and more productive.

CHARACTERISTICS TO CONSIDER WHEN IDENTIFYING A DATA SCIENTIST MANAGER

It's easy to understand why managers make significant mistakes in their daily management of the people they employ. Many managers lack fundamental training in managing people which is usually manifest in their inability to practice the significant soft skills required to effectively lead a team of data scientists.

But, even more importantly, many managers lack the values, sensitivity, and awareness needed to interact effectively day-in and day-out long with people on their team. The best managers fundamentally value and appreciate people. Skills and techniques are easier to teach, but values, beliefs, and attitudes are much harder to teach, and harder for managers to learn. Yet, these are the underlying issues that will most make managers successful, or in their absence lead to epic failure as a manager.

How important is it to have your data sciences manager succeed? Managers and how they manage their reporting staff members set the tone for the entire operation. Managers are the front line representation of your business. They are the cogs that hold your organization together because all of your employees report to them, for better or for worse. The majority of communication about the development programs is funneled through the managers. Fundamental success for a data sciences organization depends upon managers managing is a style that empowers and enables staff, promotes creativity, and provides equal parts responsibility, accountability, and authority.

When a staff member resigns from a data sciences organization, one of the top reasons for resigning is their relationship with their manager. People often leave managers, not jobs or employers. They also leave for reasons such as lack of opportunity, low work flexibility, and boredom, so managers are not exclusively on the hook. But, managers generally are at the forefront of why a staff member leaves an organization, so manager skills matter.

In a job description for a manager, core job functions, technical traits, educational requirements, and abilities are most often listed. With this as a guide, manager selection should focus on both the management skills (including soft skills) and the candidates' "Cultural Fit" within the data sciences organization. Since a manager is in a position to influence a large number of staff, ensuring that both management skills and cultural fit components are addressed is critical to elevating a person into a manager's role.

Within the "cultural fit" component a person who wants to be elevated to a manager role must demonstrate that they have beliefs, values, and a work style that are congruent with those of your organization. This includes having a commitment to empowering and enabling other employees to also contribute their best work. In a people-oriented, forward-looking organization, you'll want to select data sciences managers who exhibit these characteristics.

- Value people,
- Believe in two-way, frequent, open, effective communication,
- Practice active listening,
- Want to create an environment where staff are empowered to take charge of their responsibilities,
- Able to hold people accountable and responsible without using punitive measures,
- Demonstrate leadership and they have an ability to set clear goals and direction,
- Believe in and value teamwork,
- Customer focused: Place the customer at the center of their reason for existence and regard reporting data sciences staff as their main customers

CONCLUSION

As a data sciences manager mistakes are inevitable, just as in life. Every manager will make mistakes, and that's OK. When a manager makes a mistake the true character of an effective manager will shine through in how they handle the mistakes. Managers, who admit mistakes, take responsibility for learning from those mistakes (and not repeat the same mistake over again), dust themselves off, and keep trying are the true character and foundation of a good manager. In most organizations, it's more important for you learn to rebound from your mistakes than it is to not make them. All of the mistakes presented in this paper can be overcome and corrected. The exception being a fatal mistake of "throwing a staff member or team under the bus". Manager's who are struggling can open their heart and mind, take a deep breath, and consider asking for help from your own boss, from HR, or even a career coach who specializes in managers excel.

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