GETTING TO A CULTURE OF FEEDBACK:
A science-based strategy to improve performance at scale

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NeuroLeadership**JOURNAL**

Frequent quality feedback is necessary for employees to remain agile and engaged. But despite best intentions, there is a substantial gap between how much feedback people need and how much they actually receive. Based on what happens in the brain when feedback works, we believe this gap persists because of an underlying assumption in the traditional approach: That we need to focus on giving more feedback. That is, while organizations have been trying to close the gap by getting managers to *give* more feedback, we may more effectively close the gap by encouraging employees to *ask* for more feedback. Giving and receiving unsolicited feedback is an inherently threatening experience, due to the high sensitivity of the social brain. Threat makes it difficult for the receiver to efficiently process feedback, and for the giver to share quality feedback. Further, threat makes both parties less likely to willingly engage in the behavior, lowering the quantity of feedback shared. Whereas a focus on giving feedback may continue to face these challenges, a focus on asking for feedback offers cognitive benefits that are more likely to lead to higher quality and quantity feedback. This paper details what the science says about why people should shift from giving to asking, how to ask for feedback, and how to give feedback once you've been asked. By encouraging everyone to ask for feedback, rather than encouraging them to give it, organizations should be better equipped to create a culture of feedback.

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No system, whether made of cells, silicon, or people, can improve without receiving feedback. An organization's success in a changing environment depends upon its ability to propel frequent, quality feedback throughout its human network. The traditional focus on giving more feedback to employees appears too slow and ineffective an approach for the current rate of change that organizations must navigate. Organizations know they need to increase the quantity of feedback that is exchanged across the board. This paper explores how we might get there.

The quality of feedback shared throughout an organization is one of the most powerful indicators of its ability to grow employees' talent (Kegan & Lahey, 2016). The single most important predictor of success as a leader at Google, for example, is the ability to be a good coach (Google, 2011)—an ability that implies the sharing of high-quality feedback. Although organizations on average spend more than $1,250 per employee on learning initiatives each year (ATD, 2016), feedback, as a free and renewable learning resource, is arguably the tool with the highest return on investment.

In theory, the most valuable way managers can help employees learn and improve is to provide feedback on their performance. But in practice, person-to-person feedback often fails to achieve its potential. Despite awareness and good intentions, there is a substantial gap between how much feedback people need and how much they actually receive. Feedback conversations generally are both too infrequent and too ineffective to reliably improve performance at scale. First, most employees do not receive enough feedback—87% of employees report that they want to be developed in their job, but only a third of employees report that they receive the feedback they need in order to engage and improve (Globoforce, 2011; Gallup, 2016). And second, when feedback *is* given, studies show that it is often not useful—traditional approaches to giving feedback are more likely to have null or even negative effects on the receiver's performance than they are to improve it (Kluger & DeNisi, 1996).

It is well known that feedback has a troubled history—that it is hard to get right, and that it has real consequences for performance and retention when it goes wrong. After dissatisfaction with salaries, a lack of opportunity for growth or enhancement is the top driver of workplace stress (APA, 2017). Further, employees who do not receive the feedback they need to feel valued were twice as likely to say they would quit in the next year (Gallup, 2016).

Box 1. How big is the gap?

A thought experiment. The discrepancy between how much feedback we need and how much we actually receive may be quite high. Consider the threshold of tasks we perform at work that we could improve upon by getting quality feedback from other people. For instance, feedback may not necessarily be meaningful after chatting with a colleague, but perhaps after leading an internal meeting, and probably after presenting to a client. Now consider with what frequency we engage in a task important enough where we could really benefit from feedback. Whatever that frequency is—say it is around five times a week, roughly once a day—compare that to how many times we actually receive quality feedback on those tasks. Although exact numbers may be hard to know, an estimate for many people could be as low as five times a quarter, roughly just once every couple of weeks. With about fifty weeks a year, that would mean that the discrepancy in the amount of useful feedback we receive is over tenfold.[1]

But leaders have not given up on feedback; they recognize that it has the potential to be quite powerful. This is why there are hundreds of articles on how to get better at giving feedback, decades of training programs, and dozens of feedback models in current use. So why then, with all of these attempts to fix the problem over so many years, has so little changed?

What we did

The NeuroLeadership Institute took on a year-long research project to find out where best to direct our attention to make feedback more reliably successful. In order to ensure that we landed on the right problem to solve, we reverse-engineered the research. That is, we began not by asking, "Why does feedback fail?" but rather by asking, *"What happens in the brain when feedback works?"*

We first defined *quality feedback* as socially-exchanged information that leads to positive behavior change. We began our research by reviewing the relevant social neuroscience and psychology literature, as well as directly interviewing the scientists themselves. We compared findings across relevant subtopics of behavior change, including learning, motivation, decision-making, social cognition, personality, and creativity.

Our synthesis pointed to a sequence of cognitive processes that occur in quality feedback. By identifying what these required processes are, we were able to align on what we think are the central obstacles to creating a culture of feedback.

What we found

Working backward, in order for feedback to result in positive behavior change, the individual has to commit to a plan to improve. But crucially, before that can happen, they must understand that there is a discrepancy between where they are now and where they need to be.

Resolve cognitive dissonance. Before an individual can improve their behavior, they must accept that they need to. Behavior change requires recognizing that one's current behavior is in conflict with a desired behavior, and knowing what to do to improve. Experiencing this kind of contrast can create cognitive dissonance (Festinger, 1962). This is the state of holding two conflicting beliefs or behaviors, such as believing oneself to be healthy, while maintaining a habit of smoking. Since dissonance is experienced as discomfort, the brain is motivated to resolve it (Elliot & Devine, 1994). In this example, our brains can resolve the dissonance between "I'm healthy" and "I smoke" by using one of three strategies: Either by justifying the behavior (e.g., "I don't smoke that much"), by changing the belief (e.g., "I'm not healthy"), or by changing the behavior (e.g., quitting smoking).

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1 If a company has a thousand employees, that is the difference between 20,000 (5 x 4 quarters x 1000 employees) meaningful pieces of feedback a year and over 250,000 (5 x 50 weeks x 1000 employees) a year.
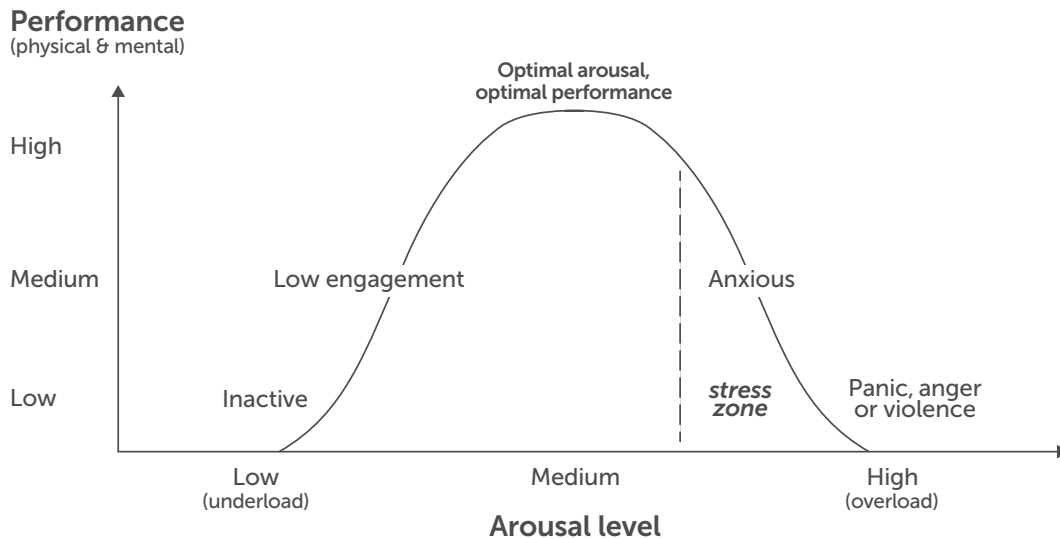
Performance
(physical & mental)

Figure 1. The relationship between performance and arousal, known as the inverted U of optimal arousal. Figure adapted from Yerkes & Dodson (1908).

When feedback works, the receiver is motivated to resolve cognitive dissonance not through excuses, but through a plan to change their behavior.

Working backward once more, we identified that in order to resolve cognitive dissonance productively, we must create the optimal psychological conditions for processing information about the self.

Maintain optimal arousal. An open cognitive state occurs when an individual's attention is engaged, but before the point at which they are overwhelmed or anxious. This is known as the optimal level of arousal (Yerkes & Dodson, 1908; Arent & Landers, 2003). If arousal is too low, the individual remains disinterested; the brain doesn't consider the information to be important enough to devote its attention to. But if arousal is too high, the individual becomes debilitated; the brain shifts its attention from the information to the emotion, thus impairing performance. That is, optimal performance requires moderate arousal—neither too low, nor too high. This relationship can be visualized in the form of an inverted-U (see Figure 1).

When feedback works, both the giver and the receiver are in a state of moderate arousal. At this level, both parties are engaged enough to process information effectively and communicate in a clear and honest fashion.

However, feedback conversations often contain self-challenging information, or information that conflicts with one's idealized sense of self.

Processing self-challenging feedback, and changing one's behavior as a result, requires adequate working memory resources in order to be successful. Working memory resources are available when the individual is in an open psychological state.

Receiving or anticipating giving self-challenging feedback can trigger a biological threat response, which is experienced as an overwhelming state of arousal (Muscatell et al., 2015). This is a closed psychological state. The threat response decreases working memory capacity (Schmader & Johns, 2003), which translates to not being able to attend to the information being told to us, nor to accurately encode it into memory and recall it later. When an employee receives feedback that they process as threatening to their sense of self, of how they are perceived by others, or to their job, their working memory resources are automatically redirected toward emotion and self-defense, rather than logic and self-examination. So, if the suggestion to change is perceived as a threat, it is more likely for that individual to become overly aroused, and resolve dissonance by defending their behavior or ignoring the conflicting information.

Based on this understanding of human nature, it is clear that unless the threat response is mitigated, people will continue to stumble through feedback conversations, or avoid them altogether. Accordingly, efforts to increase the quantity of feedback without first addressing the *quality of the experience* of feedback will be unsuccessful.

The question, then, is this: How can feedback be provided in a manner that achieves a manageable threat response?

The current feedback approach

To find out, we explored relevant industry data, as well as our own performance management field research. We honed in to examine feedback models currently used in performance management practices and coaching programs through the lens of what happens in the brain when feedback works. The goal was to see what these approaches have in common, and what may be missing.

Sample of popular feedback models. Extended list in Appendix.

- **Sandwich Model** *(Compliment, Criticism, Compliment)*

- **Stop, Start, Continue**

- **SBI** *(Situation, Behavior, Impact)*

- **STAR/AR** *(Situation, Task, Action, Reaction/ Alternative Action, Reaction)*

- **AID** *(Action, Impact, Do)*

Each of these feedback models improves various aspects of feedback interactions. The Sandwich Model attempts to mitigate threat by making the interaction more pleasant. Stop, Start, Continue understands that giving positive reinforcement is a powerful behavioral tool. SBI, STAR/AR, and AID encourage people to give behavioral feedback in context, which helps distinguish between behavior and personality.

These models vary in their prescriptions, but they all take the same approach: They are tools for the feedback giver.

But because the brain is designed to protect itself, any approach that solves for giving more feedback is unlikely to be successful, because it amplifies the aspect of the interaction that is most psychologically unproductive.

We propose that the solution to the discomfort of feedback, and therefore an acceleration of feedback at scale, may be a reversal of the central assumption that feedback conversations should be driven by the person giving the feedback. Rather than focusing on encouraging managers to *give* more feedback, we propose that it is far more effective to focus on encouraging employees to *ask* for more feedback.

The solution may seem simple, but research indicates that the directionality of the conversation has a profound impact on the way the brain processes and embeds the information therein. There is compelling data to support the hypothesis that when organizations switch from solving for giving feedback to asking for feedback, there should be an increase in both the quality and quantity of the those conversations.

...unless the threat response is mitigated, people will continue to stumble through feedback conversations, or avoid them altogether.

The problem with giving feedback

To contextualize our proposed approach to closing the feedback gap, it is helpful to bring to life what typically happens when the opportunity for giving feedback arises.

Meet Josh. Josh has worked diligently and confidently in Sales for most of his career, and has been eyeing an internal opening for VP of the region. In order to gain more experience and visibility, he's begun to give more in-person presentations to prestigious clients.

Josh is determined to look good, so he's spent the past few days preparing data and talking points for today's pitch. His colleague, Sam, is an experienced presenter herself, and accompanies him to take notes.

Overall the presentation seems to go well; Josh communicates all of his planned material, and the client says she appreciates them coming in. But in the cab ride home, a feeling of doubt lingers with Josh, and he quietly replays a few fumbles in his mind. From Sam's perspective, there were clear

instances where Josh could have made a bigger impact and highlighted their firm's value.

Scenario 1: Sam doesn't give Josh feedback. Feeling slightly defeated, Josh decides to let it go and respond to emails on his phone. Sam spends most of the ride in a back-and-forth: Should she offer Josh feedback on his presentation? If so, how can she make sure it's not awkward? What if he takes it the wrong way and she damages the relationship? She can't find a natural opening to say something, and she can tell Josh is already upset. Sam ultimately determines that giving feedback is not worth it. So, she decides to just make him feel better: "Hey, nice work back there."

Scenario 2: Sam gives Josh feedback. After some internal deliberation, Sam decides it would be helpful for Josh if she shared her point of view:

"I think you presented well. But did you notice the client seemed a little disengaged at times?"

"Yeah," Josh reluctantly responds, "It wasn't my best. I haven't done many presentations like this. Plus, that lady looks like she's rarely engaged with anything."

"I think it was all those data points," Sam offers. "The client really could've gotten a lot more value if you spent time asking her questions."

"Yeah maybe, but I had to cover what's in the slide deck, and at that point, there was no time left."

Josh is visibly eager to end the conversation, so Sam decides not to push any further. Neither Josh nor Sam feel great about their interaction, and part ways when they get back to their office.

In these scenarios, both Josh and Sam instinctively recognized that there were opportunities for improvement. However, since the onus was on Sam to offer feedback, the interaction was less likely to succeed from the start.

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Research in social neuroscience has shown that the brain processes social pain with the same circuitry as it processes physical pain (Eisenberger & Lieberman, 2004). This neural circuitry is so well-tuned to figuring out how others view us, that our perceived social standing is highly correlated with our overall well-being, likelihood of success, and general survival abilities (Marmot, 2004). In other words, falling (physical pain) and failing (social pain) evoke the same neural responses; they put the brain into a threat state, activating the emotional and protective limbic system (Muscatell et al., 2015).

When unsolicited feedback causes an employee to feel embarrassed or defensive, the brain may shift its attention to alleviating the pain by rejecting the feedback. Thus, unsolicited feedback can often have the effect of priming people for a fixed mindset, in which they are resistant to change and unwilling to learn from errors. (Dweck & Elliott, 1988; Moser, Schroder, Heeter, Moran, & Lee, 2011). Consequently, the person giving the feedback is less likely to share honest information, since their focus must shift from giving feedback to settling the overwhelming state of arousal.

Optimal levels of arousal occur when employees are in a state of psychological safety, the belief that the current environment is a safe place to take interpersonal risks such as being honest about someone else's weaknesses, or vulnerable about one's own (Kahn, 1990). For psychological safety to occur in the brain, social threat must be minimized in the five domains from which people draw social value: Status, certainty, autonomy, relatedness, and fairness (Rock, 2008).

Status

As human beings, we draw value from being perceived as better than others, or better than ourselves in the past—to be stronger, smarter, or more attractive than that which we are compared to. This is our sense of status. Our status within the community has both physical and social benefits: Higher status individuals tend to attain more power and resources, and in turn, are treated with more respect. (Baumeister & Tice, 1985; Marmot, 2004).

Status threat: Being told of our weaknesses; looking bad.
Status reward: Being told of our strengths; getting better.

Certainty

Second, there is value in being able to accurately perceive our surroundings. This is our sense of certainty. Being able to say that our experience is accurate and to predict outcomes can increase our sense of safety and confidence, and reduce anxiety. (Swann Jr, 1983).

Certainty threat: Not knowing what an outcome will be; ambiguity.
Certainty rewards: Knowing what's about to come; specificity.

Autonomy

Third, we tend to seek control over the self, or the power to create our own outcomes. This is the need for autonomy. People who feel autonomous experience greater self-esteem and emotional stability, as well as self-efficacy—the belief in one's own ability to succeed (Judge, Bono, & Thoresen, 2002). When we feel we cannot control the self, we often seek to control our surroundings—including controlling others.

Autonomy threat: Being told what to do.
Autonomy reward: Having choices.

Relatedness

Fourth, we require a sense of belonging. This is what is called relatedness. Whether we are included within a group or excluded from it has deep roots in survival, and correlates directly to well-being and performance. (Baumeister & Leary, 1995)

Relatedness threat: Being rejected by others.
Relatedness reward: Being accepted by others.

Fairness

Finally, we are sensitive to how appropriately we are treated. This is the need for fairness. Though arguably the most tenuous of the five, fairness indeed seems to hold weight as an operating social principle. When we experience unfairness—for example, when one person receives a lower reward than someone else for completing the same task—the brain processes the experience as painful (Rilling & Sanfey, 2011).

Fairness threat: Having one's point of view misinterpreted.
Fairness reward: Having one's point of view understood.

Together, Status, Certainty, Autonomy, Relatedness, and Fairness form The SCARF® Model of social motivation (Rock, 2008), which can be used to label why an interaction succeeds or fails.

Because giving unsolicited feedback can be threatening or unproductive for both parties, it can be challenging to get people to engage in feedback conversations with the needed frequency. But our research found that it is not that people dislike receiving feedback; rather, they dislike having their status threatened. Likewise, people don't dislike giving feedback; rather, they dislike upsetting other people. And employees do like learning, and managers do like helping people. If feedback could be provided without triggering the threat response, it could occur far more often.

A science-based strategy to provide feedback without triggering the threat response is for feedback to be asked for rather than given. When employees ask for feedback, the quality of conversations increases because they can become easier and more useful to both parties. And when both sides no longer fear feedback conversations, they can occur more frequently, so people get the information they need, when they need it, in a more motivating way.

Why ask for feedback

1. **Asking for feedback is better for the asker**
2. **Asking for feedback is better for the giver**
3. **Asking increases the quantity of feedback**

1. Asking for feedback is better for the asker

Asking for feedback can lower the threat for the receiver, allowing for greater cognitive capacity to process information. Whereas being given unsolicited feedback has the potential to strongly evoke all five domains of social threat, asking for feedback can actually create reward in some areas while significantly mitigating threat in others.

For example, when someone asks their colleague for specific feedback, they may experience reward within the domains of certainty and autonomy: They are getting the information they need (certainty), on their own terms (autonomy). This results in a stronger motivational outcome than receiving information that they didn't ask for, at a moment when they may not be mentally or physically prepared to digest it. Asking for feedback can also create a feeling of relatedness between the two parties; the asker is communicating to the giver that they value their perspective, and the giver is motivated to provide information that is useful and framed for positive impact. Additionally, whereas the giver can spark a fairness threat by only considering their own point of view, the asker can increase fairness by giving context before the giver offers feedback.

Finally, although asking for feedback may still feel uncomfortable in terms of protecting one's sense of status, it is more manageable than the acute status threat that occurs as a result of unsolicited feedback.

In addition to mitigating the threat responses that interfere with optimal processing, asking for feedback also actively enables neurological processes that accelerate learning.

Learning is a highly personal process, both cognitively and emotionally. Feedback that is provided on the giver's terms makes improvement unlikely, based on the very fact that it is *given*. On the other hand, when people are more in control of the information they receive and when they receive it, that information becomes more valuable to them. Research on the neural mechanisms of learning consistently show that when people are in control of the information they receive, they learn more (Voss et al., 2011). Information is more deeply embedded when people voluntarily engage in a task (Keller, 2008) and when they are curious, or intrinsically motivated, to acquire that information (Kang et al., 2009; Gruber et al., 2014). The brain places higher value on information it desires to acquire, and is therefore more likely to encode it into memory and use it to guide future behavior (Marvin & Shohamy, 2016).

Greater control over the learning process also creates a sense of agency in the learner. This is the sense of the self as subject, rather than the self as object; it is the mental state of being in control of one's life. Recall that autonomy can lead to greater self-esteem, emotional stability, and self-efficacy. These are all states that lead to greater job performance and higher job satisfaction (Bono & Judge, 2003). The psychological benefits of autonomy alone can make us more receptive to feedback and more likely to learn from it.

Further, autonomously asking for feedback can empower the learner by helping sidestep the "one-size-fits-all" approach in which feedback is given in a standardized way to everyone, regardless of whether the feedback procedure works particularly well for any one person. Because learning is such a personal process, outcomes are enhanced when the learner is in control of the content and the context. By eliciting feedback rather than passively accepting it, one can more easily "make the most" of the time they have with the feedback giver by

tailoring the interaction to their individual needs (Branch & Paranjape, 2002).

Finally, because of the inherent increased autonomy, asking for feedback can put the asker in a reward, or "toward" state. The state of being in control can invoke psychological safety, which allows an individual to more easily process and learn from incoming information (Edmonson, 1999), rather than become defensive.

2. Asking for feedback is better for the giver

In a giver-driven paradigm, there is almost as much potential for the giver to experience social pain as there is for the receiver. Even though peers can have some of the most useful feedback to give, it is very easy to talk oneself out of giving it. We have all used excuses to sit on a piece of feedback that could have helped someone: "It's not my place," "It's too awkward to bring up," "If I ignore it maybe it will go away." One reason for this is that humans, unlike robots, have a basic need to maintain positive social relationships and to avoid behaviors that threaten them. As giving feedback threatens this need, people shy away from offering it despite its potential to help others grow.

In an asker-driven model, the quality of the experience is lifted for the giver, as they can focus less on not offending the receiver, and can instead engage as an equal partner in the conversation. Being asked for feedback can generate positive relatedness and status signals for the giver, communicating that their viewpoint is desired and valued (Cox et al., 2016). Because in an asker-driven model both parties have the same goal—to create clarity around the asker's current behavior or ideal outcomes—the conversation creates a high degree of relatedness between the two individuals. The giver is also likely to feel a sense of pride or responsibility towards the asker to help them, eliciting a status reward that, importantly, does not proportionally reduce the status of the asker.

Additionally, when someone asks for specific feedback, the giver's uncertainty about what information to provide is diminished. Less mental energy is spent thinking about what the receiver is or is not aware of, and how they will react to hearing information that challenges their existing view. They can instead focus on answering the question at hand and reacting naturally as the conversation progresses.

Ultimately, receiving explicit and detailed questions from the asker can provide the feedback giver an increased sense of psychological safety, just as it does in the asker. This tends to increase positive affect and prosocial motivation (Cox et al., 2016). Prosocial motivation, the innate concern for the welfare and benefit of others, has been shown to increase perspective-taking and creativity, and thereby may lead to more effective problem-solving when a feedback asker and giver are discussing performance solutions together (Grant & Berry, 2011).

How to ask for feedback

Explicitly

One way we can elicit more useful information is by framing the conversation with explicit requests. First, we can direct attentional focus to the kind of feedback we prefer, whether evaluative ("Do you like this?" / "Is this right?") or developmental ("What should I do more of?" / "Where should I refocus?"). Receiving one when expecting the other can be either threatening or unhelpful, and it can be difficult for a giver to know which kind is expected. Explicitly asking for the kind of feedback we need increases certainty, sets clear expectations, and prepares the brain to process the information.

Additionally, framing the request for feedback as an opportunity for learning and development (e.g., "I'm asking for your feedback in order to improve my presentation skills") enables the asker to promote a growth mindset for both parties. A growth mindset is the belief that one's abilities can be developed over time, whereas a fixed mindset is the belief that one either has those skills or they do not (Dweck & Leggett, 1988). Although a shift in mindset may seem like a subtle change, the lens through which we receive information can make a substantial difference in what we do with feedback.

For example, in one neuroimaging study, adult participants with a fixed mindset showed increased activity upon error detection—their brains were focused on the fact that they had made a mistake— whereas those with a growth mindset showed increased encoding and retention of information about error correction—their brains were focused on the opportunity to improve (Mangels et al., 2006). Because of this, on the tasks in that study that followed, individuals with a growth mindset

outperformed their fixed mindset counterparts upon receiving corrective feedback.

Additionally, we can request feedback at the level of construal we desire. Construal level is the spectrum of abstract to concrete (Trope & Liberman, 2010). When we think abstractly, we view information in terms of its purpose, higher goals, or broader meaning. When we think concretely, we view information in terms of its details, low-level implications, and specific contexts. High-level feedback could be something like, "Ensure clarity of the client's needs." This speaks to "why" certain behaviors matter. Communicating at this level allows the learner to draw connections to how to apply the feedback on the behavioral level, and generalize across contexts. A low-level version could be "Ask the client more questions before you start presenting." This communicates "what" or "how." This level allows the learner to know exactly what behavior to engage in, in that specific context.

While certain performance situations are more suited to high or low construal, importantly, some *people* have a natural orientation toward one or the other (Fujita, Trope, Liberman, & Levin-Sagi, 2006). The "fit" between one's preferred construal level and the level at which information is communicated matters; when there is correspondence between the two, the receiver is more likely to respond favorably to the message itself (Lee, Keller, & Sternthal, 2010). Construal fit can lead us to perceive the information as being more relevant and useful, and to be more likely to encode the information into memory. Therefore, by specifying the request for feedback to our preferred level of construal, we can more easily process and learn from the feedback.

Broadly

By autonomously asking for feedback, we can receive feedback that is less biased than if we relied solely on our manager, because we are able to seek a broad array of perspectives.

For better or for worse, biases exist to various extents in everyone, because all brains are biased (Lieberman, Rock, Halvorson, & Cox, 2015). Feedback that comes from just one person, therefore, is necessarily biased, and thus not comprehensive. Biased information is not necessarily wrong; it is simply information that is skewed by one person's experiences, values, expectations, and goals. The

problem is that since our biases exist to protect us, they are self-serving. That means that each person is generally driven to perceive the world through a self-serving lens, rather than an objective one.

The ideal approach is to gather multiple points of view from a diverse set of people, not just those who are likely to agree with us. Whether they are a manager, a peer, a direct report, or a desk attendant, if they interact with us, then they have a valuable point of view to share. This strategy reduces the impact of self-serving biases (Antonioni, 1996), increasing the quality of the information we can receive about our performance.

Asking broadly not only exposes us to a wider set of perspectives, but also requires us to synthesize those distinct points of view, which can actually lead to smarter, more creative solutions (Cox et al., 2016). In addition, asking broadly can reveal novel information that otherwise would have remained in our blind spots, which offers us a more comprehensive picture of our behavior and its impact.

Often

Asking for feedback frequently can have both short-term and long-term benefits for improvement. In the short term, it permits more immediate course correction, rather than allowing weeks or months to go by without having learned from others' viewpoints. Timing can also increase the odds that the feedback we receive is accurate, as individuals have a better memory for events that happened recently (Morris & Ridgway, 1976).

In the long term, asking often creates a regular routine of feedback-seeking, which is what builds a behavior into a habit (Yin & Knowlton, 2006). Making a habit out of feedback can decrease the stress associated with both receiving and giving. Decreasing stress is imperative for processing information needed to make changes (Schmader & Johns, 2003). The less stressful the experience is, the more likely we will be motivated to engage in it frequently, and the more likely that it becomes a habit.

In theory, people could be encouraged to give feedback at every opportunity. However, without the proper mindset, frequent unsolicited feedback can come in as a status threat *(This person thinks I'm not good at my job)* or an autonomy threat *(I didn't ask for their opinion)* (Rock & Cox, 2012). This

can spark the self-defense mechanisms introduced earlier, and therefore deter growth. But because asking can reduce that threat, people should be both more likely to engage rather than resist, and to find more benefit each time.

3. Asking increases the quantity of feedback

When organizations try to solve for giving

As organizations attempt to solve the feedback gap at scale, a focus on giving feedback can actually decrease the quantity and quality of feedback conversations that happen. The science of learning and motivation has long held that the outcome of a behavior can encourage or discourage our repetition of that behavior (Holroyd & Coles, 2002). That is, we are more likely to repeat actions that have positive outcomes, and more likely to avoid behaviors that have negative outcomes. This is the long-standing process of conditioning, or reinforcement learning—the basic learning mechanism of pairing desired or undesired behaviors with pleasure or pain, respectively (Skinner, 1953; Schultz, 2008).

Due to increased potential for threat and bias, receiving unsolicited feedback is more likely to elicit a negative cognitive state—that is, to be paired with pain. There are certainly cases where giving and getting unsolicited feedback go well, but negative experiences have a stronger motivational pull than positive ones (Rock, 2008). Just one negative experience can reframe the positive association our brain had with feedback, making us less likely to give feedback in the future. Multiple negative experiences of feedback can strengthen resistance against engaging in that behavior, decreasing the likelihood and frequency of people giving feedback and receiving it well across the organization.

When organizations solve for asking

Whereas the frequency and quality of feedback conversations can decline over time in a giver-centric model, they may actually increase over time in an asker-centric model due to its psychological benefits (Garland et al., 2010). As discussed, the brain's response to asking for feedback is more likely to be positive and align with the mental state necessary to learn and improve. Additionally, as conditioning encourages actions that have positive outcomes to be repeated (Holroyd & Coles, 2002), and as repetition builds habits (Yin & Knowlton,

2006), feedback conversations may become easier, more useful, and more frequent over time. Feedback can therefore become less intimidating, and instead evolve into an experience that is associated with feelings of reward, thereby fostering improvement and a sense of personal empowerment.

In turn, this should lead people to feel more comfortable asking for more feedback in the future, and should lead to more positive reinforcement, and so on, in a self-reinforcing cycle. Consequently, solving for asking may create an upward spiral in the frequency of quality feedback conversations across an organization. In so doing, we can help to create a feedback-friendly culture where everyone in the organization can work together to achieve their full potential.

It is important to acknowledge that this approach is not a one-click solution. There are of course certain obstacles that will be unique to an asker-driven approach, and we have acknowledged and attempted to address some of those obstacles that may arise.

Potential obstacles

What if I have to give feedback when someone hasn't asked for it? Asking for feedback requires a certain level of self-awareness, and an active desire to improve. So certainly, there will continue to be times when people will need to give feedback that hasn't been asked for. In these cases, the giver can still simulate the experience of the receiver having asked for feedback, subduing the otherwise inherent threat responses. For example, the giver can take measures to increase autonomy in the receiver, like asking for permission, and allowing the receiver to frame the conversation at their preferred level of specificity. Following these same principles can help to bypass the instinctive defense mechanisms in being given unsolicited feedback, and set the stage to more easily receive the information.

What if people lean too far into asking, and come off as overbearing? Feedback at every turn would bring the organization to a standstill. It is important to recognize the threshold of importance for which feedback is really needed. Many basic tasks, like day-to-day decision-making, might benefit from some feedback, but are not important enough to merit the additional effort involved. For those tasks important enough to the organization, however,

like high-stakes decision-making, staying with the status quo in terms of performance quality is unacceptable. We believe that it is necessary to consider whether a task is above that threshold of importance to the organization or to one's work when deciding whether to ask for feedback. If it is, improvement is necessary, and so feedback is a must. If it is below threshold then it may be better to let it go as we cannot afford to lose productivity by asking for feedback on every task we do.

Wouldn't someone feel threatened if they're randomly asked for feedback, or asked by a superior? It is true that the giver may experience a threat response if they are asked for feedback without feeling prepared to share. Therefore, it is important for the asker to recognize this possibility, and to make an effort to reduce the potential threat the giver may feel. One way they can do this is by allowing the giver an easy out if they do not have feedback to share. For example, phrasing the question as "Do you have any feedback in mind on how I might engage the client better next time?" allows the giver to say "Thanks for asking, but I actually don't have anything useful for you yet." In addition, the asker can grant permission for the giver to approach them once they do have something useful to share, allowing both sides the required certainty for processing and sharing useful information. Further, we argue that although this may happen the first one or two times a person is asked, after some experience with asking for feedback they will better understand the dynamic that research suggests is likely to unfold—one that is more conducive to sharing, learning, and collaborating on improving performance. This should make such encounters less threatening and more rewarding over time.

The culture is not ready. This is perhaps the most important potential obstacle as it touches every aspect of feedback. Many organizations want a culture where people freely and frequently give and receive feedback. An asker-driven approach, in which individuals and teams take shared responsibility for helping one another improve, may be novel, and therefore not yet in accordance with current habits and cultural norms. Asking for feedback in those cases is a habit that needs to be built. In order for this approach to scale most easily, the environment has to be supportive during habit

formation. This is how the practice can become normalized and self-reinforcing.

Certain aspects of a company's culture may make it more difficult to attain a culture of feedback. For example, a culture of perfection, where mistakes are seen as failure, rather than learning opportunities; a culture of expedience, where quickness is more valued than quality; or a culture of competition between individuals or silos, where people are incentivized to be self-serving rather than generous. These environmental norms can make it so that, despite best efforts to improve, someone may be set up for a challenge. We would not want to teach people to ask for feedback in an unsupportive culture just as we would not teach someone to ride a bike on a highway. In order for this approach to be successful, there ought to be agreement and reinforcement between the new practice and the environment in which we practice.

> *...as conventional wisdom has devoted its energy toward fixing feedback by focusing on the giver, science suggests that we gain much more by giving the right tools to the asker.*

An organizational culture is defined in part by its shared values, norms, and goals. In order for asking for feedback to become a part of the culture, it therefore needs to be emphasized as a value, normalized into daily work, and worked on over time. The specific techniques for attainment will vary by company, but there are a few standard principles that should be relevant throughout. We can establish value by engaging in public social

acknowledgement and reward; our assessment of something's value is highly determined by what we believe our community values (Zaki, Schirmer, & Mitchell, 2011). We can accelerate normalization by ensuring frequent exposure, and by managers role modeling the desired behavior. Learning does not just occur through explicit instruction; it also occurs through observation, especially of those with higher status (Bandura, 1971). We can assist progress toward quality feedback by propagating a growth mindset across all practices—the attentional focus on learning from mistakes, helping one another, and improving over time (Dweck & Leggett, 1988). Ultimately, creating a feedback-friendly culture requires examining systems and processes to see how they can best support rather than interfere with the science behind learning from one another.

Conclusion

In the last several years, companies have realized that their success depends on their employees' agility, which comes down to people's ability to improve—fueled in part by the quantity of quality feedback they receive. Frequent, quality feedback is more important than ever, but many feedback practices do not improve performance the way they are intended. However, as conventional wisdom has devoted its energy toward fixing feedback by focusing on the giver, science suggests that we gain much more by giving the right tools to the asker.

On the surface, this is a seemingly simple proposal. But asker-driven feedback—where both parties have reduced threat levels—has neural benefits. First, asking for feedback can make it easier for the receiver to process and learn from self-challenging information. They can further ensure high quality and quantity of feedback by asking explicitly, broadly, and often. Second, asking can make it easier for the giver to give more useful information, having been invited to share their point of view and asked explicitly for the kind of feedback the receiver needs. Third, because of the increased ease, asker-driven feedback should lead to a higher quantity of feedback. Because our brains have developed to repeat rewarding behaviors, the positive responses to asking for feedback can create an upward spiral in the quantity and quality of feedback that happens, making it easier and more likely to occur every day. Therefore, initiatives that train everyone to *ask* for

feedback—and ensure a feedback-friendly culture—should be more likely to be successful at scale, and increase an entire organization's ability to improve.

With this in mind, let's revisit our friend Josh.

. . . . .

Even though Josh feels uncomfortable thinking about his performance, he notices that this is a learning opportunity. So rather than brush it off, he leans in to see what he can learn from Sam.

Scenario 3: Josh asks for feedback.

Josh looks up from his phone and turns to Sam. "You busy?"

"No," Sam replies, "What's up?"

"So, I'm replaying how that went back there, and I think I could do better at keeping the client engaged next time."

Sam nods along as Josh continues, "You're an experienced presenter—would you mind sharing your point of view? Did you notice any specific behaviors that I could build on or rethink to keep her attention?"

Sam is unrehearsed, but is both relieved and flattered that Josh has asked. "Sure, I'd be happy to try to help." She takes a moment to gather her thoughts. Josh thanks her and prepares to listen for ways he can improve.

"I did notice her engagement levels go up and down. She was nodding along when you were helping her clarify her needs—you really did a great job there. But she seemed to drift a bit when you were talking through the data points. So I think you can build on the behaviors that make the client feel like she's participating—asking questions, listening, and helping to reframe—and rethink how much time you allocate to listing off numbers."

"Hm, thanks—" Josh takes a moment to reflect. "Yeah, now that I think of it, I guess I could follow up with those numbers offline, and use the in-person time to connect more personally."

"Great insight!"

Both Josh and Sam feel rewarded by the interaction. Josh goes on to try out new strategies, and follows up with her a few times on what's working. Sam sees how useful this is for him, and since she was generous in offering her time, Josh is happy to reciprocate when she asks him for feedback. Over

time they get better at asking, their colleagues get better at giving, and so on, and the conversations become easier.

By the time management is considering candidates for the VP position, the quantity of quality feedback Josh has received has grown perhaps tenfold—so that when he meets with his manager, he can clearly illustrate how he's improved. He's made a quarter more sales than last year, engaging clients and growing relationships throughout the region. And as Josh settles into his new desk, as the new VP of Sales, he tips his hat to the first time he decided to just ask.

Appendix

Model	Description	Attribution
The Sandwich Model	Give a Compliment, Criticism, Compliment	Unclear
Stop, Start, Continue	Say what behaviors to Stop, Start, or Continue	Unclear
SBI	Give a description of the Situation, Behavior, Impact	Center for Creative Leadership
STAR/AR	Give a description of the Situation, Task, Action, Reaction/Alternative Action, Reaction	Development Dimensions Intl.
AID	Focus on Actions, Impact, and Desired Action	Mark Landsberg (2009)
BROFF	Behavior, Reason, Outcome, Feelings, Future actions	Unclear
BIFF	Behavior, Impact, Future, Feelings	Unclear
DISC	Describe, Impact, Specify change, Consequences	John Wiley & Sons (1970)
RISE	Reflect, Inquire, Suggest, Elevate	Emily Wray (2013)
CARE	Context, Action, Results of Action, Esteem	Unclear
COBS	One should give clear feedback, which they own and have made balanced and specific	Hawkins and Shohet (2000)
Pendleton's Rules	Seven guidelines map the entirety of a Feedback discussion	Pendleton (1984)
ABC	Discuss plans using Action, Because, Could we	Sommer and Rockey (2011)
The Feedback Model	Four steps that encourage clear and appropriate feedback	Horstman and Auzenne (2006).
Said/Heard, Meant/Felt	Illustrates a pattern of a conversation regarding feedback	Garber (2004)
FeedForward	Give feedback that focuses on the future, not the past	Goldsmith (2014)
SARA	Receiver of feedback experiences Shock, Anger, Denial, Acceptance	Kubler Ross Grief Research (1969)
Johari Window	Understand the others and the self	Luft and Ingham (1955)
PEAR	Give Praise and Examples then Ask and Reinforce	Wildman (2003)
CEDAR	Give Context and Examples, then Diagnose, Ask, and Review	Wildman (2003)
BOOST	Give feedback that is balanced, observed, objective, specific, and timely	Braincraft (2012)
FUEL	Four steps to guide the feedback conversation	Zenger Folkman (2012)
One Minute Redirect	Give personalized feedback focusing on "What" and "How"	Ken Blanchard (2015)

References

American Psychological Association Center for Organizational Excellence (2017). 2017 Work and well-being survey. *American Psychological Association.*

Antonioni, D. (1996). Designing an effective 360-degree appraisal feedback process. *Organizational Dynamics*, *25*(2), 24-38.

Arent, S. M., & Landers, D. M. (2003). Arousal, anxiety, and performance: A reexamination of the inverted-U hypothesis. *Research Quarterly for Exercise and Sport, 74*(4), 436-444.

ATD. (2016, April 1). Making space for training initiatives. Retrieved from https://www.td.org/Publications/Magazines/TD/TD-Archive/2016/04/Making-Space-for-Training-Initiatives

Bandura, A. (1971). *Social learning theory.* New York, NY: General Learning Press.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497-529.

Baumeister, R. F., & Tice, D. M. (1985). Self-esteem and responses to success and failure: Subsequent performance and intrinsic motivation. *Journal of Personality*, *53*, 450-467.

Bono, J. E., & Judge, T. A. (2003). Core self-evaluations: A review of the trait and its role in job satisfaction and job performance. *European Journal of Personality*, *17*(1), S5-S18.

Branch Jr, W. T., & Paranjape, A. (2002). Feedback and reflection: Teaching methods for clinical settings. *Academic Medicine*, *77*(1), 1185-1188.

Bryant, A. (2011). Google's quest to build a better boss. *New York Times*, *12.*

Cox, C., Davis, J., Rock, D., Inge, C., Grant, H., Sip, K., Grey, J., & Rock, L. (2016). The science of inclusion: How we can leverage the brain to build smarter teams. *NeuroLeadership Journal, 6.*

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, *95*(2), 256.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, *44*(2), 350-383.

Eisenberger, N. I., & Lieberman, M. D. (2004). Why rejection hurts: A common neural alarm system for physical and social pain. *Trends in Cognitive Sciences, 8*(7), 294-300.

Elliot, A. J., & Devine, P. G. (1994). On the motivational nature of cognitive dissonance: Dissonance as psychological discomfort. *Journal of Personality and Social Psychology, 67*(3), 382.

Festinger, L. (1962). *A theory of cognitive dissonance* (Vol. 2). Stanford University Press.

Fuchs, E., & Flügge, G. (2014). Adult neuroplasticity: More than 40 years of research. *Neural Plasticity, 2014.*

Fujita, K., Trope, Y., Liberman, N., & Levin-Sagi, M. (2006). Construal levels and self-control. J*ournal of Personality and Social Psychology, 90*(3), 351-367.

Gallup. (2016, June 02). Managers: Millennials Want Feedback, but Won't Ask for It. Retrieved from http://news.gallup.com/businessjournal/192038/managers-millennials-feedback-won-ask.aspx

Garland, E. L., Fredrickson, B., Kring, A. M., Johnson, D. P., Meyer, P. S., & Penn, D. L. (2010). Upward spirals of positive emotions counter downward spirals of negativity: Insights from the broaden-and-build theory and affective neuroscience on the treatment of emotion dysfunctions and deficits in psychopathology. *Clinical Psychology Review*, *30*(7), 849-864.

Globoforce. Globoforce Reveals 2011 Workforce Mood Tracker Survey Results. (2011, September 28). Retrieved from http://www.globoforce.com/news/press-releases-archive/globoforce-reveals-2011-workforce-mood-tracker-survey-results/

Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. *American Psychologist*, *54*(7), 493.

Google. Guide: Identify what makes a great manager. Retrieved from https://rework.withgoogle.com/guides/managers-identify-what-makes-a-great-manager/steps/learn-about-googles-manager-research/

Grant, A. M., Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, Perspective Taking, and Creativity. *Academy of Management Journal, 54*(1), 73-96.

Gruber, M. J., Gelman, B. D., Ranganath, C. (2014). States of curiosity modulate hippocampus-dependent learning via the dopaminergic circuit. *Neuron, 84,* 486-496.

Holroyd, C. B., & Coles, M. G. (2002). The neural basis of human error processing: Reinforcement learning, dopamine, and the error-related negativity. *Psychological Review, 109*(4), 679.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct?. *Journal of Personality and Social Psychology*, *83*(3), 693-710.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*(4), 692-724.

Kang, M. J., Hsu, M., Krajbich, I. M., Loewenstein, G., McClure, S. M., Wang, J. T., & Camerer, C.F. (2009). The wick in the candle of learning: Epistemic curiosity activates reward circuitry and enhances memory. *Psychological Science*, *20*(8), 963-973.

Kegan, R., & Lahey, L. L. (2016). *An everyone culture: Becoming a deliberately developmental organization.* Cambridge, MA: Harvard Business Review Press.

Keller, J. M. (2008). First principles of motivation to learn and e-learning. *Distance Education*, *29*(2), 175-185.

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*(2), 254.

Lee, A. Y., Keller, P. A., & Sternthal, B. (2010). Value from regulatory construal fit: The persuasive impact of fit between consumer goals and message concreteness. *Journal of Consumer Research*, *36*(5), 735-747.

Lieberman, M. D., Rock, D., Halvorson, H. G., Cox, C. (2015). Breaking bias updated: The SEEDS Model®. *NeuroLeadership Journal, 6.*

Mangels, J. A., Butterfield, B., Lamb, J., Good, C., & Dweck, C. S. (2006). Why do beliefs about intelligence influence learning

success? A social cognitive neuroscience model. *Social Cognitive and Affective Neuroscience, 1*(2), 75-86.

Marmot, M. G. (2004). *The status syndrome: How social standing affects our health and longevity.* New York, NY: Macmillan.

Marvin, C. B. & Shohamy, D. (2016). Curiosity and reward: Valence predicts choice and information prediction errors enhance learning. *Journal of Experimental Psychology: General, 145*(3), 266-272.

Moser, J. S., Schroder, H. S., Heeter, C., Moran, T. P., & Lee, Y. H. (2011). Mind Your Errors: Evidence for a Neural Mechanism Linking Growth Mind-Set to Adaptive Posterror Adjustments. *Psychological Science, 22*(12), 1484-1489.

Muscatell, K. A., Dedovic, K., Slavich, G. M., Jarcho, M. R., Breen, E. C., Bower, J. E., ... & Eisenberger, N. I. (2015). Greater amygdala activity and dorsomedial prefrontal–amygdala coupling are associated with enhanced inflammatory responses to stress. *Brain, Behavior, and Immunity, 43,* 46-53.

Rock, D. (2008). SCARF®: A brain-based model for collaborating with and influencing others. *NeuroLeadership Journal, 1,* 44-52.

Schmader, T., & Johns, M. (2003). Converging evidence that stereotype threat reduces working memory capacity. *Journal of Personality and Social Psychology, 85*(3), 440.

Schultz, W. (2006). Behavioral theories and the neurophysiology of reward. *Annual Review of Psychology, 57,* 87-115.

Skinner, B. F. (1953). *Science and human behavior.* Simon and Schuster.

Swann Jr, W. B. (1983). Self-verification: Bringing social reality into harmony with the self. *Social Psychological Perspectives On the Self, 2,* 33-66.

Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review, 117*(2), 440.

Voss, J. L., Gonsalves, B.D., Federmeier, K.D., Tranel, K.D. & Cohen, N.J. (2011). Hippocampal brain-network coordination during volitional exploratory behavior enhances learning. *Nature Neuroscience, 4*(1), 115-122.

Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology, 18*(5), 459-482.

Yin, H. H., & Knowlton, B. J. (2006). The role of the basal ganglia in habit formation. *Nature Reviews Neuroscience, 7*(6), 464-476.

Zaki, J., Schirmer, J., & Mitchell, J. P. (2011). Social influence modulates the neural computation of value. *Psychological Science, 22*(7), 894-900.