Navigating Our Way Through Life

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As I begin my message today I would like you to think back on a time when you were completely lost. You may have been hiking in the wilderness, been trying to find your way to a meeting in a new city, or been separated from your parents at an amusement park. Can you remember how you felt? You may have felt frightened, embarrassed, or desperate for help. How did you ultimately find your way? Rather than focusing on the dreadful experience of being lost, I would like to speak about guiding principles that can help us find our way.

For many years I have been interested in the topic of navigation, specifically in figuring out ways for unmanned aircraft—commonly called drones—to find their way from one location to another. For me, this topic is both technically fascinating and an interesting metaphor for our mortal journey through life.

The scriptures are replete with examples of journeys or paths used as symbols for our lives here on earth. A couple of my favorites include the stories of Lehi and his family being led to the promised land by the Liahona¹ and the stories about the Israelites wandering in the wilderness and being led and protected by a "pillar of . . . cloud by day" and a "pillar of fire by night."²

This common use of the path or a journey as a teaching aid leads me to ask, "What is to be

learned from these accounts? How can we be led by our Father in Heaven through the wilderness of life to our own promised land? And what about the more modern techie metaphor of drone navigation? Are there useful parallels to consider between our course through this earthly life and the way a drone finds its way around?" Let's explore this topic a little.

Using Feedback to Help Us Navigate

I have had the opportunity to perform research on drones with fantastic colleagues and students for the past seventeen years. Our primary goal has been to make small unmanned aircraft capable of performing useful tasks without the direct control of a pilot, using innovative combinations of sensors and algorithms implemented on board the aircraft.

Whether flying to avoid obstacles such as buildings or canyon walls, coordinating the actions of multiple drones, or navigating through a crowded building, the approaches we have used have always involved four important components: first, having a goal or a desired objective; second, sensing the state of the aircraft and the environment around

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it; third, processing the sensor information to determine the input commands to the aircraft; and fourth, sending the commands to the aircraft motors to produce the desired behavior.

Similarly, for us to reach our ultimate objectives in life, we must have a vision or goal that defines the path we should take. We must have ways to assess our progress along our path and whether we are close to or far away from it. We must have the ability to reason and make decisions about ways to improve our progress. And finally, we must exercise our agency to act in ways that lead us toward our desired objective.

This idea of evaluating where we are relative to our desired objective and then acting to move toward it can be termed in technical jargon as "feedback control." The word *feedback* refers to the information we gather from sources around us while the word *control* describes how we use that information to come up with a course of action. This principle of feedback is powerful, and it is finding its way into our daily lives in more and more ways. While feedback has been and will be critical to many technological advances, I would like to consider how we use it to navigate through this mortal journey called life.

Whether we realize it or not, we all use feedback to make decisions that guide our actions. I would like you to consider these questions:

- What are my sources of feedback?
- Am I receiving spiritual feedback from divine sources?
- How often am I receiving feedback?
- How can I ensure that my feedback is accurate and true?

The feedback that we receive and use can be true, accurate, and frequent, which is what we want, or it can be infrequent and in error in a variety of ways. If we consider an unmanned aircraft that is following a path to a desired destination, it will reach its destination as long as the feedback it receives about its location relative

to the path is accurate and is received with sufficient frequency. On the other hand, if the feedback is in error in some way, whether it is biased, noisy, or otherwise incorrect, the aircraft will not converge to the desired path and will not arrive at its destination. Interestingly, even accurate feedback that is delayed or received too infrequently can lead to poor outcomes.

The same is true for us in our lives. We must be wise and careful in choosing our sources of feedback because those sources that are most readily available to us, such as the Internet and popular culture, are sometimes biased, inconsistent, or just plain wrong. Decisions and actions based on errant information will not put us on a path to our desired destination.

Feedback really is a powerful concept. Used properly, it can guide us precisely to our eternal goal, and, used improperly, it can lead us away. Critical to its proper use is consistent and steady action based on accurate and frequent feedback.

One of the best examples in the scriptures of a feedback device is the Liahona.³ The Liahona was given to Lehi and his family early in their journey into the wilderness. It was composed of a ball and pointers, and it functioned like a compass in the sense that its pointers indicated the direction in which Lehi and his family should travel. Unlike a magnetic compass, the pointers were controlled by divine means and showed them the way the Lord would have them go.

We learn some details about the function of the Liahona from Nephi, who had firsthand experience using it. In addition to the pointers within the ball that directed their journey, Nephi described how words were written on the ball that gave them understanding concerning the ways of the Lord. Nephi told us that the words were "changed from time to time" and that the pointers directed the family's way "according to the faith and diligence and heed which [they] did give unto them."

After discussing how the Liahona worked, Nephi drew this significant conclusion: "And thus we see that by small means the Lord can bring about great things."⁶ From this we learn that there is real power in these so-called "small means" because they open up pathways for frequent and accurate spiritual feedback. The wonderful thing is that we all have access to this power that comes from being faithful, diligent, and heedful, and fortunately it doesn't require us to have our own real Liahona hardware.

Later in the Book of Mormon, in Alma 37, Alma was nearing the end of his life, and he spoke to his son Helaman about the Liahona and reiterated much of what Nephi had taught about its operation.⁷ Alma further explained that when their fathers "were slothful, and forgot to exercise their faith and diligence," the Liahona failed to function, and they wandered and were afflicted in their journey.⁸ We could say that their feedback had become intermittent.

Alma then followed with some of my favorite verses of scripture:

And now, my son, I would that ye should understand that these things are not without a shadow; for as our fathers were slothful to give heed to this compass . . . they did not prosper; even so it is with things which are spiritual.

For behold, it is as easy to give heed to the word of Christ, which will point to you a straight course to eternal bliss, as it was for our fathers to give heed to this compass, which would point unto them a straight course to the promised land.

... For just as surely as this director did bring our fathers, by following its course, to the promised land, shall the words of Christ, if we follow their course, carry us beyond this vale of sorrow into a far better land of promise.

O my son, do not let us be slothful because of the easiness of the way; for so was it with our fathers; for so was it prepared for them, that if they would look they might live; even so it is with us. The way is prepared, and if we will look we may live forever.⁹

The Liahona was a literal source of navigational feedback for Lehi and his family. It helped them find their way through the

wilderness to the promised land. The Liahona is also a metaphor for the spiritual feedback that is available to us—namely, the words of Christ, of which the scriptures are one example. Remember, for feedback to be effective in helping us stay on the path, it needs to be accurate and frequent. The scriptures are true and thus accurate, and they are as frequent and consistent as we allow them to be. They are a beacon of truth and a source of divine feedback that can guide us on our path through life.

The Holy Ghost as a Source of Divine Feedback

In the case of Lehi and his family, the words of Christ that were written on the ball represented revelation and inspiration from the Lord. In the same way, the Holy Ghost can be a source of inspiration in our lives. Elder David A. Bednar has taught about the Liahona and how it is a type and a shadow for the Holy Ghost in our day. He said:

As we strive to align our attitudes and actions with righteousness, then the Holy Ghost becomes for us today what the Liahona was for Lehi and his family in their day. The very factors that caused the Liahona to work for Lehi will likewise invite the Holy Ghost into our lives. And the very factors that caused the Liahona not to work anciently will likewise cause us to withdraw ourselves from the Holy Ghost today.¹⁰

Alma and Nephi used the words *faith*, *heed*, and *diligence*¹¹ to describe the key factors governing the function of the Liahona. These same small means are the principles by which the Spirit can bless and guide our lives. We must have the faith to look to the Savior, and we must believe that we can receive guidance through the Spirit. We must be persistent in our efforts to seek the influence of the Spirit in our lives, and we must pay careful attention to feel and follow the guidance we receive.

Elder Bednar has also emphasized the influential role of the Holy Ghost in our mortal journey. He taught:

Faithfully obeying God's commandments is essential to receiving the Holy Ghost. We are reminded of this truth each week as we listen to the sacrament prayers and worthily partake of the bread and water. As we pledge our willingness to take upon ourselves the name of Jesus Christ, to always remember Him, and to keep His commandments, we are promised that we may always have His Spirit to be with us (see D&C 20:77). Thus, everything the Savior's gospel teaches us to do and become is intended to bless us with the companionship of the Holy Ghost. 12

The gift of the Holy Ghost is an amazing form of spiritual feedback for us. It is the primary means by which our Heavenly Father influences our lives. It is real and it is individualized. The scriptures teach that "by the power of the Holy Ghost [we can] know the truth of all things" and that "the Holy Ghost . . . will show unto [us] all things [that we] should do." The companionship of the Holy Ghost is a wonderful gift! As feedback, it is perfectly accurate, and it can be frequent.

We can come under the Holy Ghost's influence with greater frequency and power by being faithful and diligent in praying, in searching the scriptures, in partaking of the sacrament worthily and renewing covenants with real intent, in worshiping in the temple, and in remembering the Savior *always*. You might know of ways to bring the Spirit into your life that are uniquely effective for you. We must be careful not to neglect these small things that strengthen the divine feedback channel that the Spirit represents.

President Henry B. Eyring taught that if we want the companionship of the Spirit to be more frequent, we need to heed the promptings that we receive. He said:

The most valuable inspiration will be for you to know what God would have you do... Whatever it is, do it. When you demonstrate your willingness to obey, the Spirit will send you more impressions of what God would have you do for Him.

As you obey, the impressions from the Spirit will come more frequently, becoming closer and closer to constant companionship. Your power to choose the right will increase.¹⁵

If you live close to the Spirit in your life, I am confident that you will receive promptings and guidance that will push you far outside of your current comfort zone. You may be prompted to take a job in a location far away from family and friends. You may feel inspired to serve a mission and to accelerate your preparation. You may be guided to pursue an advanced degree even though you have a growing family and are not sure how it could possibly work out. You may even be prompted to ask someone out on a date.

Whenever my wife, Amber, has the opportunity to introduce us to a new ward of young single adults, she always works in the story of how she asked me out first. Even though she keeps repeating the story, which is a little embarrassing for me, I am grateful for that inspired act, as things have worked out really well for us together. I invited her to join me at the podium today to share her version of our courtship story one more time to a really big audience, but, understandably, she politely declined.

The Spirit will guide you to do hard things that challenge you to the core. The Liahona did not direct Lehi and his family to go back to Jerusalem to a life of comfort and convenience. It led them farther into the wilderness. It directed them, a land-loving people, to cross an ocean. Of course the Liahona was guiding them to their promised land, but the path that they were required to follow stretched their faith and their capabilities.

The guidance you receive through the Holy Ghost may at times feel risky or may even induce within you feelings of inadequacy and fear of failure. Don't be afraid. Recognize the source of the promptings you are receiving and have the faith to act. You may be humbled by the circumstances you find yourself in,

but remember that God's grace is sufficient to strengthen you.¹⁶

Many of the great pathfinders in the scriptures were humbled by the situations they were placed in. Moses felt inadequate and overwhelmed with God's directive to lead Israel out of Egypt.¹⁷ Nephi was at times immensely frustrated with his own weakness and inability.¹⁸ In this dispensation, the Prophet Joseph Smith was humbled by his lack of a formal education.¹⁹ In spite of their weaknesses, God accomplished His will through them—and He will do so with you as well if you follow His Spirit.

Receiving Feedback from Inspired Friends, Leaders, and Loved Ones

As we move through life, we can sometimes become distracted from our important objectives. It is critical to remember that helpful guidance and feedback in our journey can come from inspired friends, leaders, and loved ones.

After I completed my master's degree at BYU, I accepted employment as a staff engineer at the University of Utah. The work was exciting and fast paced. Amber and I were enjoying life. Our finances were suddenly much improved. We were working on starting our family, and we were serving in the Church in new and more responsible ways. Everything was going great for us.

Leading up to this time, I had thought a lot about pursuing a doctoral degree. Over time, however, because I was enjoying work and life was going so well, my commitment to pursue additional education had begun to fade. I had not made a decision one way or the other and had simply let other things take precedence. By not making a conscious effort to prayerfully consider my future, I was in essence letting life's circumstances decide for me. In a sense, I was not acting but rather was being acted upon.

One afternoon, after I had been working for almost a year, I received a phone call in my office from Professor Joseph C. Free. Joe, whom I called Dr. Free back then, was a professor in the BYU Mechanical Engineering Department. He had taken an interest in me as an undergraduate student and had later served as my graduate advisor. He was a trusted mentor and friend with whom I had talked quite a lot about graduate school.

We caught up a bit on what had been going on in our lives, and after some conversation he asked me how my PhD plans were shaping up. I shared with him how well things were going for me at work and in life generally. I told him that Amber was expecting our first child and that I thought I would stay put where I was.

In response, he expressed his happiness that things were going so well for me, and then he said something that I will never forget. He said, "I am disappointed that you aren't going forward with your plans for a PhD."

Not a lot more was said, and we wrapped up our call together. I was not surprised by Joe's comment, and initially I did not think too much about it. But his words stuck in my mind for weeks, and I eventually concluded that I needed to prayerfully consider my future and seek the guidance of the Spirit.

Amber and I did pray, and together we decided that more school was the right thing for us and that sooner was better than later. About nine months later, on a hot summer evening, we drove west out of Salt Lake City into the setting sun with our twin baby girls strapped in their car seats to begin six of the most challenging, fulfilling, and fun years of our lives.

This story has a nice ending. About seven years after Joe's phone call to me, I accepted employment as a professor here at BYU. I was hired into Joe's position and began to teach the classes he had once taught. Interestingly, the phone number that he had once called me from became, and is to this day, my phone number.

"Fail Often to Succeed Sooner"

By starting my message today showing video clips from several successful unmanned aircraft flight tests, I may have given the misleading impression that successful flight tests are easily achieved and that we are just out having fun all the time. The truth is that a successful flight test that yields five minutes of video can require a graduate student or a team of students a year or more of preparation and effort to successfully complete. A little calculation shows that one minute of good video results requires about 50,000 minutes of preparation and effort—along with numerous setbacks and failures. Just like life, nothing ever goes exactly according to plan.

As we fly along our path through life, at times we may crash. Sometimes, despite our best efforts, we may feel like we just keep going down. Unlike what may happen with drones, our crashes in life—whether due to our own sins or weaknesses or to the random difficulties of life—do not result in permanent damage. We can be repaired and made whole again through the atoning sacrifice of the Savior.

Because we are each intimately familiar with our own weaknesses, the repeated setbacks that we all experience on a personal level can be discouraging. These feelings are amplified as we view the lives of those around us, especially through the lens of social media. All we tend to see are the highlight reels of others' successes, too easily forgetting that they also have bloopers that are simply too embarrassing or painful to share. As we assess our progress toward our goals, we must avoid the temptation to compare our progress with that of those around us. Comparisons to others generally do not provide the personalized, accurate feedback that we each need to reach our inspired goals in life.

Since we all fail at one time or another, it is important to realize that some failures can and should be avoided while others are a natural consequence of our efforts to progress and become better.²⁰ You are in a phase of your life in which much of your effort is focused on personal growth and development as you consider your education, careers, and relationships. These things are difficult, and the risk of failing is real.

Sometimes, when we face big decisions or challenges in life, we can be slow to act for fear

of making a mistake. In the field of engineering design, a common exhortation is to "fail often to succeed sooner." Of course the objective is not to fail. Instead, this saying can inspire us to act decisively under the guidance of the Spirit when we face uncertainty. We must remember that if we try something hard and then fail, we will always learn something beneficial in the process. It is often better to act in the best way we know how and to learn from our mistakes than to be paralyzed to the point of inaction because of fear.

President Boyd K. Packer once shared a story in which, as a new General Authority, he sought the counsel of President David O. McKay. But after receiving the prophet's counsel, he saw no possible way of following it. He explained his situation to Elder Harold B. Lee, who said, "The trouble with you is you want to see the end from the beginning."

President Packer then received what he called "the lesson of a lifetime" from Elder Lee, who continued, "You must learn to walk to the edge of the light, and then a few steps into the darkness; then the light will appear and show the way before you."²²

This principle was also taught by Nephi. As he sought to retrieve the gold plates from Laban after two failed attempts, he went forth in faith a third time, even when he wasn't sure what to do. He said, "I was led by the Spirit, not knowing beforehand the things which I should do. Nevertheless I went forth." We must go forward too.

Seek the Influence of the Holy Ghost

It is comforting to know that we need not wander alone on our mortal journey through life. Through consistent, seemingly small acts of devotion, we can have the guiding influence of the Holy Ghost with us continually, and by following His guidance we can bring to pass great things. This is the power of the Holy Ghost. Its importance cannot be overemphasized, as it can influence every aspect of our spiritual navigation system.

The Holy Ghost can bless us with an expansive vision of our future. He can provide essential feedback to help us correctly assess our progress on our journey and where we are relative to our desired path. He can guide us to make inspired choices and decisions. And He can give us the courage and resolve to act, both in recognizing and in following His guidance. With the divine feedback of the Spirit that is available to us, we need not ever feel spiritually lost

In his most recent conference address, President Thomas S. Monson taught:

Our goal is to obtain celestial glory, and the choices we make will, in large part, determine whether or not we reach our goal. . . .

 \dots It **does** matter which way we go, for the path we follow in this life leads to our destination in the next life.²⁴

It is my belief that we can obtain this goal of celestial glory as we seek and follow the divine feedback that comes through the still, small voice of the Holy Ghost. It is my hope that we can be faithful and diligent in doing the small things that will allow this guiding feedback to be both frequent and perfectly accurate, leading us to the great things that God has intended for us.

I bear my witness that God lives, that we are His children, and that He loves each of us. Because of that love, He sent His Son to be the Savior and Redeemer of the world and to give us hope and a path to return to Him. That we may seek the influence of the Holy Spirit to find and follow that path is my prayer, in the name of Jesus Christ, amen.

Notes

- 1. See 1 Nephi 16:10, 16; 1 Nephi 18:21-22.
- 2. Exodus 13:22; see also verse 21; Numbers 14:14; Nehemiah 9:12.

- 3. See 1 Nephi 16:10-16, 26-29.
- 4. 1 Nephi 16:29.
- 5. 1 Nephi 16:28.
- 6. 1 Nephi 16:29.
- 7. See Alma 37:38-42.
- 8. Alma 37:41.
- 9. Alma 37:43-46.
- 10. David A. Bednar, "That We May Always Have His Spirit to Be with Us," *Ensign*, May 2006.
 - 11. See Alma 37:41, 43-44; 1 Nephi 16:28.
- 12. David A. Bednar, "Receive the Holy Ghost," *Ensign*, November 2010.
 - 13. Moroni 10:5.
 - 14. 2 Nephi 32:5.
- 15. Henry B. Eyring, "The Holy Ghost as Your Companion," *Ensign*, November 2015.
 - 16. See Ether 12:27.
 - 17. See Exodus 3:11, 13; 4:1, 10, 13.
 - 18. See 2 Nephi 4:15-35.
 - 19. See Joseph Smith—History 1:23.
- 20. An in-depth and inspiring treatment of failing successfully can be found in Kevin J Worthen, "Successfully Failing: Pursuing Our Quest for Perfection," BYU devotional address, 6 January 2015.
- 21. A slogan of design firm IDEO, quoted in Catherine Fredman, "The IDEO Difference," *Hemispheres* (magazine of United Airlines), August 2002, 56; see also pages 52–57.
- 22. Boyd K. Packer, "The Edge of the Light," BYU fireside address, 4 March 1990; adapted in *BYU Today*, March 1991, 22–23; emphasis added; see also Boyd K. Packer, *The Holy Temple* (Salt Lake City: Bookcraft, 1980), 184.
- 23. 1 Nephi 4:6–7. A great talk on receiving answers to prayer about life's big decisions that has influenced my thinking is Anthony D. Perkins, "Nevertheless I Went Forth," BYU devotional address, 4 February 2014.
- 24. Thomas S. Monson, "Choices," *Ensign*, May 2016; emphasis in original.