8 DESIGN FOR MOTIVATION

(In which we learn that we don't always learn the right thing when we learn from experience, and that the elephant is a creature of habit)

There are two main types of motivation that we concern ourselves with as learning designers:

- Motivation to *learn*
- Motivation to *do*

We've already spent a lot of time looking at motivation to learn (remember the elephant?), so this chapter is going to concern itself with motivation to *do*.

MOTIVATION TO DO

Numerous studies have come out in the last few years that say texting while driving is a very very dangerous thing to do.

Shocking.

That texting while driving is dangerous probably isn't a surprise to the vast majority of the population. So why do people continue to do it? I don't know exactly, but I suspect it's because people have one, or a mix, of the following thoughts and responses:

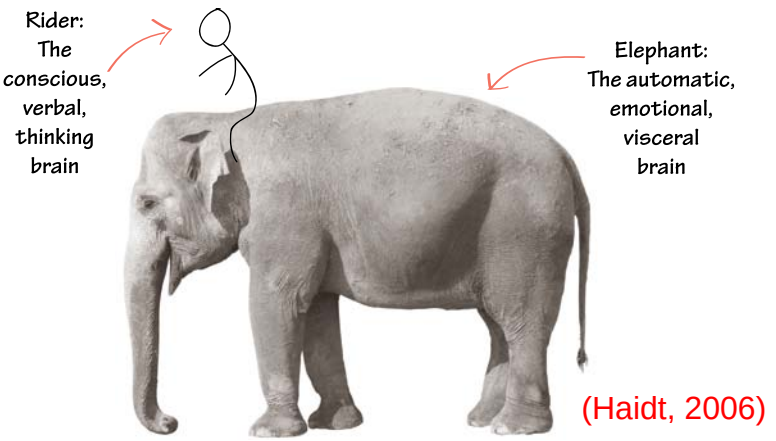
- *"I know it's a bad idea, and I never do it (except when I do, and then I feel guilty)."*
- *"I know it's a bad idea, but I only do it once in a while, and I'm very careful."*

- *"I know it's a bad idea for other people, but I can do it because I'm really good at it."*
- *"Huh? What's the big deal?"*

Most of the responses above indicate that this is not a knowledge problem, and that an intervention that focuses on knowledge isn't going to change anything, because it's not the "know" part but rather the "do" part of the sentence that's the problem.

So why do people *do* things they *know* are a bad idea? It's not because they aren't smart people.

A big part of this goes back to our elephant and rider. Frequently, the rider *knows*, but the elephant still *does*.



WE LEARN FROM EXPERIENCE

Part of the reason for "I *know*, but..." is that people learn from *experience*, which is a great thing (we wouldn't want to live in a world where people didn't), but it can cause some problems. The elephant in particular can be far more influenced by experience than by abstract knowledge.

Here's an example. Let's say that 1 in 10 instances of texting while driving results in an accident (this isn't a real statistic; I don't think that exact data is known—this is just for purposes of argument). Let's take a look at the experience of two different drivers:

Texting while driving

	Driver 1	Driver 2
1st Time	OK	OK
2nd Time	Has nasty fender bender	OK
3rd Time	Doesn't text	OK
4th Time	Doesn't text	OK
5th Time	Doesn't text	OK
6th Time	Doesn't text	OK
7th Time	Doesn't text	OK
8th Time	Doesn't text	OK
9th Time	Doesn't text	OK
10th Time	Doesn't text	Has an accident

Both drivers are learning from experience, but the lesson Driver 2 is learning from experience is that texting while driving is *fine*—see, look at all the experience that confirms that! Until it isn't fine, of course.

This is why people have a really hard time with activities where the action is now but the consequence is later. The elephant is a creature of immediacy. Take a look at these classic "I know, but..." activities.

Classic "I know, but..." activities

Activity	Immediate Consequence	Delayed Consequence
Smoking	Nice nicotine hit	Lung cancer
Saving for retirement	Less money	More money
Exercise	Ouch	Nice abs!
Doughnuts	Mmm...	I'm not getting on that scale...

In these activities, the elephant is being asked to sacrifice in the present for some future gain, but the elephant is only really persuaded by what's happening now, and by the experience of the immediate consequences. The rider knows that there's an association with the future consequence, but whatever that future consequence is, it's too abstract to influence the elephant.

REMEMBER, CHANGE IS HARD

Now, you might not be trying to fix behaviors as difficult as smoking, but anything that involves extra effort is going to be a lot easier if the elephant is on board with the program.

In particular, changing an existing pattern of behavior can require effort for the elephant. The elephant is a creature of habit, which means that if the elephant is used to going left, it's going to require a fair bit of conscious effort to get it to go right instead.

Before we look at ways to influence learner behavior, and while this word "change" keeps popping up, let's be clear on one thing: none of this is about *controlling* the learner. It's not about tricking your learners into compliance. Instead, it's about designing environments that make it easier for those learners to succeed.

The experience they have when they are learning about something can make a difference in the decisions they make later.

DESIGNING FOR BEHAVIOR

Let's take a look at some methods to design for behavior change or reinforcement.

THE TECHNOLOGY ACCEPTANCE MODEL (TAM)

The technology acceptance model (Davis 1989) is an information systems model that looks at what variables affect whether or not someone adopts a new technology. It's been fairly well researched, and although it isn't without its critics, I find it to be a useful frame. At the heart of the model are two variables:

Perceived Usefulness	Perceived Ease of Use
Does the learner see this change as something that will be useful to them?	Does the learner see this change as something that will be easy to use or implement?

It's not a complicated idea—if you want someone to use something, they need to believe that it's actually useful, and that it won't be a major pain in the ass to use.

TAM specifically addresses technology adoption, but those variables make sense in a lot of other areas as well. You want someone to use a new method of coaching employees? Or maybe a new safety procedure? If your audience believes that it's pointless (i.e., not useful) or it's going to be a major pain (i.e., not easy to use), they will probably figure out ways around it. Then it either fails to get adopted or you get into all sorts of issues around punishments or incentives to try to force the change to happen.

I keep TAM in mind when I design anything that requires adopting a new technology or system or practice (which is almost everything I do). Some of the questions I ask are:

- **Is the new behavior genuinely useful?** Sometimes it's *not* useful for the learner, but it is useful for the organization, or it's a compliance necessity. In those cases, it can be a good idea to acknowledge it and make sure the learner understands why the change is being made—that it isn't just the organization messing with their workflow, but that it's a necessary change for other reasons.
- **If it is useful, how will the learner know that?** You can cite case studies, examples, people talking about how it's helped them, or give the learner the experience of it being useful through simulations. Show Don't Tell becomes particularly important here. You can assert usefulness until you're blue in the face, and you won't get nearly as much buy-in as you will if learners are able to try it, or to hear positive endorsements from trusted peers. Can you involve learners in planning the change so they can have input and can help make sure that the change will be effective?

- **Is the new behavior easy to use?** If not, why not? Is it too complex? Is it because people are too used to their current system? People will learn to use even the most hideous system by mentally automating tasks, but then when you ask them to change, it's really difficult because they can no longer use those mental shortcuts, and the new system feels uncomfortably effortful until they've had enough practice.
- **If it's not easy to use, is there anything that can be done to help that?** Can the learners practice enough to make it easier? Can you make job aids or other performance supports? Can you roll it out in parts so they don't have to tackle it all at once? Can you improve the process or interface to address ease-of-use issues?

DIFFUSIONS OF INNOVATION

The other model I find really useful is from Everett Rogers' classic book *Diffusion of Innovations*. If you haven't read it, you might want to get a copy. It's a really entertaining read, packed with intriguing case studies and loaded with useful stuff. The part I want to focus on here is his take on what perceived attributes affect whether a user adopts or rejects an innovation:

Relative Advantage—The degree to which an innovation is perceived as being better than the idea it supersedes

Compatibility—The degree to which an innovation is perceived to be consistent with the existing values, past experiences, and needs of potential adopters

Complexity—The degree to which an innovation is perceived as difficult to use

Observability—The degree to which the results of an innovation are visible to others

Trialability—The opportunity to experiment with the innovation on a limited basis (Rogers 1983)

There is obviously some crossover with TAM, but if I'm designing a learning experience for a new system, I use this as a mental checklist:

- Are the learners going to believe the new system is better?
- Are there compatibility issues that need to be addressed?
- Can we do anything to reduce complexity?
- Do the learners have a chance to see it being used?
- Do the learners have a chance to try it out themselves?
- How can learners have the opportunity to have some success with the new system?

If somebody really, *really* doesn't want to do something, designing instruction around these elements probably isn't going to change their mind. And if a new system, process, or idea is really sucky, or a pain in the ass to implement, then it's going to fail no matter how many opportunities you give the learner to try it out.

How might this play out in a real-life, on-the-job situation? Let's say you are responsible for creating training for a network of nursing homes. There have been a number of incidents lately with residents falling down and injuring themselves. The network has started a new initiative to try to reduce the number of falls. Your job is to train the staff to use a new process for evaluating a resident's risk level for falling. The staff is supposed to use a five-point checklist (steadiness, use of walking aids, physical dexterity, vision impairment, and environmental hazards) to evaluate a resident's risk, and to take action on high-risk ratings. The difficulty is that this is a different procedure than has been used in the past, and it is extra work for the already busy staff.

What could you build into a learning experience for each of the check-points to make it more likely that the staff will use the new procedure?

Think about each of Everett's attributes (relative advantage, compatibility, complexity, observability and trialability), and how you accomplish each of these for the new procedure. Consider how you would apply these ideas before reading the design suggestions below.

Design suggestions:

- **Relative Advantage** Is there a way for the user to see how many more falls can be prevented using the new system? This can be done with statistics, but statistics talk to the rider, not the elephant. Some way to make this information more visceral for people will have more impact.

  For example, learners might be able to identify with the story of Millie, a lively resident who is negatively affected by a fall, and has to struggle to come back. The new method can be used to prevent Millie from falling again.

  Statistics can also be translated into tangibles. For example, a 17% reduction in falls can mean X more residents who can visit their families for the holidays and Y more residents who can operate independently, which ultimately equals less work for the staff also.

  Another way to show relative advantage would be for the learners to work through a few cases using the old system, and then assessing those same cases using the new system. They can then report back on how many more

potential hazards were identified using the new system. By having the learners discover and report back on the advantages, it becomes more Show than Tell.

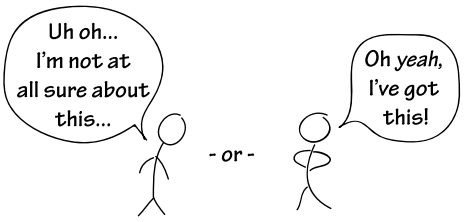
- **Compatibility** One way to improve compatibility is to recruit the learners on this task. As part of the training, have them look at how this new procedure is incompatible, and then have them help brainstorm ways to make it more compatible with the existing process.
- **Complexity** The first step in clarifying and taming complexity is to reduce the learners' perceived *sense* of complexity by giving them enough opportunities to practice such that the process starts to feel easier to them.

  The second step is to actually reduce the complexity. If the new process adds a separate form, can it be incorporated with the existing forms? If it's a situation where the learners have to write notes, can some of the items be converted to a checklist so they don't have to remember as much, and so they can fill out the documentation faster?
- **Observability** Are there pilot programs that the learner can observe? Can you identify opinion leaders (the folks everybody listens to) and have them use the new process first, so everyone else can see how it's going?
- **Trialability** Stage some practice scenarios that the learners can work through to see how the new system works. After they've had a chance to try it out, regroup and smooth out any rough edges, questions, or issues with the learners.

SELF-EFFICACY

Self-efficacy can be described as someone's belief in their own ability to succeed. Basically, it's the little engine that could ("I think I can...I think I can...").

Which of these guys do you think is going to be more likely to try a new method or procedure?



Earlier in the book, I mentioned a curriculum for drug and alcohol prevention for middle-school students (www.projectalert.com). One of the key elements of that curriculum is developing the students' sense of *resistance self-efficacy*.

Dealing with peer pressure involving drugs, cigarettes, and alcohol is another classic "I know, but..." scenario, right? For example, kids don't start smoking because they don't know smoking is bad. They've all gotten that message, so there are other reasons. But the situations where students need to make the right decision are emotionally fraught, high-stress situations. Being able to act confidently can make a big difference in those situations.

Students participating in the prevention curriculum practice, and practice more, and practice *more* how they are going to handle the situation. They have statements ready, and they've tried them out in role-play scenarios. Additionally, they have the confidence of their peer group in the class, who have also talked about their strategies in the same circumstances.

In addition to feeling capable, it helps if learners also feel that the necessary task or skill is within their control.

Carol Dweck, a social and developmental psychologist and researcher, conducted an experiment with fifth graders (Mueller & Dweck 1998). She had the students solve a set of problems. When they were done, half the group was told "You must be smart at these problems" and the others were praised for their effort—"You must have worked hard at these problems." They then had students attempt subsequent tasks.

Dweck describes the results:

> *We found that praise for intelligence tended to put students in a fixed mind-set (intelligence is fixed, and you have it), whereas praise for effort tended to put them in a growth mind-set (you're developing these skills because you're working hard). We then offered students a chance to work on either a challenging task that they could learn from or an easy one that ensured error-free performance. Most of those praised for intelligence wanted the easy task, whereas most of those praised for effort wanted the challenging task and the opportunity to learn.*

When the students tackled subsequent tasks, the students who had been praised for intelligence (something not in their control) did worse than they had done initially, and the students who had been praised for working hard (something they *did* control) did better overall.

Well, that seems to have worked pretty effectively with kids, but are there ways to improve the self-efficacy of adult learners as well?

Let's revisit Marianna, from Chapter 1. You'll recall that she is a newly minted supervisor for her company's IT support department. She was a great IT support person and now she's been promoted, supervising five other IT support workers.

Her HR department has sent her to a new-manager training class, where she learned all about the paperwork necessary for managing hourly workers, and about a coaching model for providing good and timely feedback to her direct reports.

Marianna's first few weeks have been a bit rocky. She is swamped by the paperwork demands, and has to work really hard to keep up. Other supervisors seem to stay on top of their paperwork, so Marianna isn't really sure what she's doing wrong. A couple of her employees are starting to come in late, and she's reluctant to confront them directly about it, because she doesn't want it to seem like she got all bossy just because she was promoted. She tries to use the coaching method she was taught, but while it works a little with one of the problem employees, it doesn't work at all with the other, and as Marianna gets busy, she doesn't really finish all the steps to the coaching process. She's not that convinced it was helpful, anyway.

Marianna's manager is aware that she's struggling somewhat, and is thinking of arranging more managerial training for her.

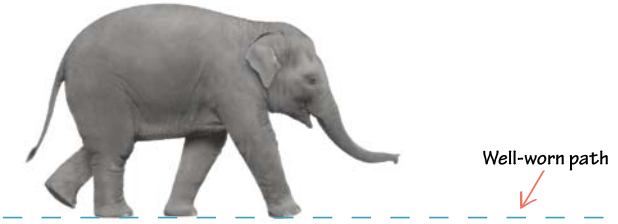
What are some ways you could design learning experiences that would increase Marianna's sense of self-efficacy? Think about your own answer before reading the design suggestion that follows.

Design suggestion ➜ Practice is a really good place to start, probably first through role-playing with her supervisor, or with others who can give her good feedback. She can also shadow some other supervisors who are successfully using the coaching model, and see it in use. She can try using the coaching model for smaller issues, rather than using it to tackle major performance problems right out of the gate. If she can use it to solve some smaller issues, she can gain more confidence in using it with bigger, more intimidating issues. Additionally, she can practice establishing herself as the supervisor of the team by doing some other activities that are non-punitive—possibly ones around developing the team in positive ways. This will make her more confident in her role as supervisor, which will help when it comes time to deal with more challenging issues.

MODELING AND PRACTICE

In Marianna's example, we looked at the value of observing someone else, and of practicing to develop self-efficacy.

These practices have other benefits besides developing self-efficacy. We know that the elephant is a creature of habit, and that it likes to learn from its direct experience (remember the second driver in the texting example?).



It takes effort to switch paths. By creating opportunities for the learner to see behaviors modeled and to practice them, you greatly increase the likelihood that those behaviors will continue later. A particularly useful resource on creating new, positive habits is the work of BJ Fogg (www.behaviormodel.org).

Another way to practice and to help increase the likelihood of a behavior being used is to walk learners a few steps down the path as part of the learning design. By this I mean, have your learners prepare themselves to employ the knowledge or skill by actively figuring out how they will use it to address their own specific challenges or tasks—stick with them as they think through moving from the theoretical to the practical.

We've talked a lot about using scenarios to make learning more vivid and engaging, but the best scenarios are the learner's actual problems or challenges.

Here are some examples:

Topic of the Learning Experience	Design
How to write better performance reviews	If they can, have learners bring to class a performance review that they need to write, and structure the activities and discussions around writing that review. At the end of the class, each learner will have a draft of a real performance review.
Filling out tax returns	Have students start their own returns.
Speaking Thai	Have learners think about things they'd like to be able to talk about (their kids, music, food, politics, introducing themselves), and have them work on ways to talk about those topics in Thai.
Project management	Have learners bring their own project documents and project concerns, and be ready to discuss those concerns, and have them work on solutions to those problems as part of the class.

This set of tactics does a few useful things. First, it gets the learners imagining how they can use the material in their own world. They start picturing the possibilities and figuring out how to deal with obstacles.

Second, it lets the learner get some practice with their own material when there is still support to help iron out snags.

Third, the learners have now made an investment. Behavioral economists talk about sunk cost and loss aversion. People have a strong reluctance to discard something that they've already invested in.

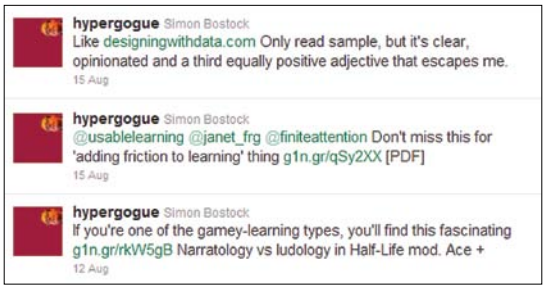
Fourth, they are ready to go when they get back to the real world. There's always a barrier to starting something new, and if the learner has already scaled part of that barrier, then there's less effort required from them as they continue.
So, whenever it's feasible, have the learners apply the subject matter to their own situations.

SOCIAL PROOF

We've already talked about how a good way to attract the elephant's attention is to tell it that all the other elephants are doing it.

But social proof (as discussed in Chapter 5—you remember, the tendency of people to base their own actions on the actions of others around them) is useful not only for attracting attention. It's also really good for encouraging the behavior.

Additionally, we can't be experts on everything, so a good tool—often an effective shortcut—is to turn to or to cite people whose opinions we respect, and whose advice we seek. If those people tell us that something is useful, we are much more likely to try it ourselves. I have folks who, if they tell me to go check something out, I'll do it without much question, because I trust their opinion:



I've worked on a number of client projects where, at the beginning of the course, there has been a "this is a really important initiative" message from the CEO, or the relevant vice president, which is fine. It's good to know a project is known and supported at the top—gives it a feeling of authority, I guess you'd say.

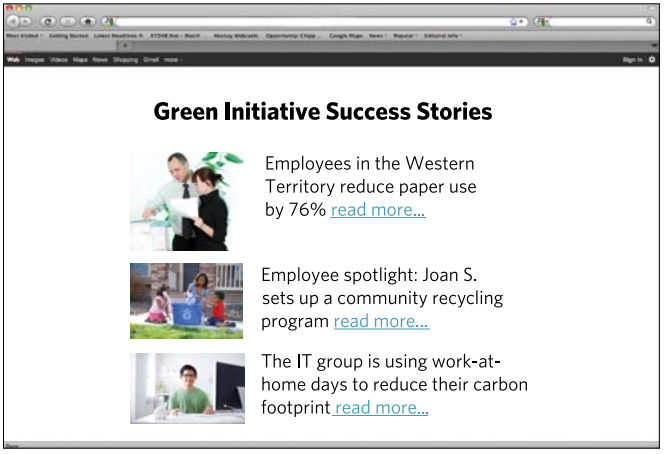
But really, who is, or should be, the actual authority figure when it comes to doing your actual job? Is it the CEO, or is the person in the next cubicle who has five times as much experience as you? If you are shopping on Amazon, whose opinion are you going to really value—the publisher, whose blurb assures you this author is a GENIUS, or the 19 readers who've said "meh..."?

In the Project ALERT drug-prevention project, they use influential opinion leaders to talk to kids about reasons not to do drugs. Now, granted, the term "influential opinion leaders" means different things in different situations, but if you are a 13-year old schoolkid, whose opinion would you most value?

Obviously, that depends on the 13-year old, but as a general rule, for middle-schoolers, high-school kids are pretty much the arbiters of what is and is not cool. To that end, Project ALERT doesn't spend a lot of time with lectures from adult authority figures, but makes good use of teenagers talking about their experiences, and how to make good choices.

So think about it—given your subject matter, who are the really influential people in your organization or in the eyes of your target audience? How can you make those opinions visible? Here are a few possibilities:

- **Have people describe successes with the process, procedure, or skill.** These descriptions can be presented on an intranet, a discussion forum, in email blasts, or through any delivery methods already available in an organization. If possible, you could create mini feature stories about the person who is using the process to good effect—that person could be the star of the show.



- **Engage opinion leaders first.** Involve your opinion leaders in the planning of the endeavor and in the creation and design of the learning experience. Can you have them lend case studies, or agree to champion the undertaking? Can you have them mentor others?
- **Make progress visible.** Many games put up leader boards to show who is really killing it. While shaming low-performing people publicly is counterproductive, having a way to acknowledge those who are succeeding can help encourage others.

VISCERAL MATTERS

The elephant is not influenced only by outside forces like peer encouragement. The elephant is also swayed by direct experience and strong emotion. Direct visual choices and visceral experiences can sway the choices that learners make.

For example, in the cake-or-fruit-salad choice from Chapter 5, people were more likely to pick the cake if they actually had it in front of them. If the choice was more abstract, they had more self-control about choosing fruit salad.

If we thought back to our texting-while-driving issue, how could we make the experience more visceral or direct for people?

Here are a couple of ways this has been done:

- *The New York Times* created an interactive game to test how good you are at changing lanes while distracted by a text message. It measures how much your reaction time slows down when you are trying to deal with distractions. You get direct experience with your own limitations. Unfortunately, it's not a very realistic simulation (you change lanes by pressing numbers on the keyboard).
- In 2009, the Gwent Police Force in Wales sponsored the creation of a video showing teenage girls in a car. The driver is texting, and while she does, the car drifts across the median line and strikes an oncoming car. A horrific accident ensues, and you see every graphic detail.

These are both visceral procedures—one involving direct experience and one an emotionally wrenching video. There's no data I can find on the outcomes of either solution, unfortunately. However, I can tell you from personal experience: I do flash on the memory of the video if I'm ever tempted to break my own rule against texting while driving.

While scare tactics often fail to change behavior, there does seem to be some benefit to strong visceral experiences, although more research is needed in this area.

YOU NEED TO FOLLOW UP

All of the above suggestions and strategies can be useful, but possibly the most important idea to keep in mind is this:

Change is a process, not an event.

Any time you want learners to change their behavior, it's a process, and *it needs to be reinforced.*

The ways to reinforce the change are all the things we've already discussed, so this isn't a new idea at this point, but it's still an important point. Be patient! Even if all your learners start out with the best intentions, making a conscious effort to implement the new solution or innovation, they are likely to trickle off if the change isn't reinforced. Always consider how that change will be reinforced over the long term.

SUMMARY

- There are two kinds of motivation that learning designers need to consider: motivation to learn, and motivation to do.
- When you hear "I know, but...," that's a clue that you'll probably need to design for motivation.
- "I know, but..." frequently comes up when there is a delayed reward or consequence.
- We learn from experience, but it can be a problem if we learn the *wrong thing* from experience.
- Change is hard.
- We are creatures of habit—irritating for the short-term learning curve, but potentially useful if we can help learners develop a new habit.
- You may be able to influence your learners, but you can't control them.
- Learning designs should show the learners how something new is useful and easy to use.
- Try to ensure your learners get the opportunity to observe and personally try new processes or procedures.
- Learners need to feel a sense of self-efficacy with the new challenge or skill.
- Use opinion leaders as examples.
- Visceral experiences may have more impact that abstract ones, although the research on this topic is ongoing.

REFERENCES

Bandura, Albert. 1977. Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review* 84: 191-215.

Dance, Gabriel, Tom Jackson, and Aron Pilhofer. 2009. Gauging Your Distraction. *New York Times.* www.nytimes.com/interactive/2009/07/19/technology/20090719-driving-game.html

Davis, F. D. 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly* 13(3): 319–340.

Dweck, Carol S. 2007. The Perils and Promises of Praise. *Educational Leadership* 65 (2): 34–39.

Fogg, BJ. 2011, 2010. Behavior Model (www.behaviormodel.org) and Behavior Grid (www.behaviorgrid.org).

Mueller, Claudia M. and Carol S. Dweck. 1998. Intelligence praise can undermine motivation and performance. *Journal of Personality and Social Psychology* 75: 33–52.

PSA Texting and Driving, U.K. 2009. www.youtube.com/watch?v=8I54mlK0kVw. Described at www.gwent.police.uk/leadnews.php?a=2172.

Rogers, Everett M. 1962. *Diffusion of Innovations.* Glencoe: Free Press. Most recently revised 2003 (5th edition).

Also:
Haidt, Jonathan. 2006. The Happiness Hypothesis. New York: Basic Books