![Success Camp logo — moose head silhouette within a circle with the text "Success Camp"](image)

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Introduction

In 1986, I thought that the main things that would be necessary to cure heritable blindness were clinical and basic scientific discoveries: test tubes, DNA sequencers, new diagnostic methods, new surgical instruments, hypothesis driven experiments – that sort of thing. Today, my perspective is quite different. I now believe that while scientific discovery is important, the most important thing that is needed to cure heritable blindness is a better understanding of human behavior and a better use of that understanding in the design and daily operation of large collaborative research organizations. What is our culture? How do we live this culture every day? How do we recruit the best people? How do we foster their career development? How do we best acknowledge and appreciate their performance? How do we support their creativity and encourage their interactions? How do we teach young physicians and scientists what we have learned about inherited eye diseases and translational science as quickly and effectively as possible? How do we provide realistic hope for our patients without overpromising things that will be limited to some degree by experiments that have not yet been performed and regulatory agencies that have not yet seen the results? How do we raise the large amounts of money that will be needed to pay for everything?

I have been thinking about this pretty seriously for my entire career. During this time I've read a lot of what others have thought about it and I have written down a lot of what I have thought (and felt) about it, some of which I will share with you here.

You can't learn everything you need to know about your and other humans' behavior in a weekend just as you can't learn everything you need to know about medicine or science in a weekend. You have to read it a little at a time, and think about it, and write down what you think about it, for it to do you any good. People who enjoy spending time in Success Camp (and come to camp frequently) will benefit the most from it. People who think that this stuff is all wooly nonsense will not benefit from it at all.

To get you started in your own personal camp experience, I will share twelve ideas that I think are central to personal and professional success and use these twelve ideas to introduce you to other writing. In some cases, I have expanded on these central ideas a bit more myself, and in some cases I have referred you to quotes, chapters or entire books by other authors.

EMS

The Twelve Keys to Success

1) Show up. [1]

2) Be interested. [2]

3) Develop and maintain a positive attitude, positive thinking, and positive self-image. [3-9]

4) Study your own temperament and values. Notice, remember and ponder what happens when you interact with others who have similar and different temperaments and values. [3, 9]

5) Have vividly detailed written goals (e.g., a personal mission statement, a personal vision statement, an institutional culture document and/or mantra, and written job expectations). Refer to them frequently and update them as needed to keep them ALMOST PERFECT for you. [3, 10-21] Choose an employer (or, alternatively, create your own division, department, institute or company) whose goals are in good alignment with yours.

6) Aspire to be an important contributor to something much larger than yourself. [22, 23] Dream no small dreams for they have no power to move the human heart. [24]

7) Avoid goats (crazymakers[25]), sharks[26] and pessimists[3]. If you are a leader, do everything you can to protect those in your organization or group from these species. Foster the highest Mazlow levels[27] possible for yourself and for everyone in the organization that you are responsible for.

8) Manage your time well (try to live in quadrant IIA). [3, 11, 28] Remember that Napoleon is not always right and working harder is a poor substitute for working smarter. Had Boxer coupled his strength to a truly shared vision that was constantly honed and polished through good education and open discussion, the animals would have succeeded [29]

9) Try to maintain optimum bit speed at all times. [3]

10) Be a systems thinker (e.g., understand the beer game,[30] the difference between common and special causes of variation,[31] Deming's 14 points for management [31, 32], and the importance of good training [31, 33]).

11) Aspire to "level 5 leadership"[34] (and be very wary of personal recognition[3]).

12) Read and/or write something relevant to your work *every day* (beyond the normal notes and correspondence associated with the routine performance of your job). [35]

References for the 12 Keys

1) Just Show Up, Edwin Stone.

2) Selected Osler Quotes, Sir William Osler.

3) Bit Speed, Edwin Stone.

4) The Strangest Secret, Earl Nightingale.

5) Success, Milton D. Stone, Jr.

6) Psychocybernetics, Maxwell Maltz.

7) Eight Rules for Positive Thinking, Maxwell Maltz.

8) Attitude is Everything, Edwin Stone.

9) Please Understand Me II, David Keirsey.

10) Envision the Future, Edwin Stone

11) Seven Habits of Highly Effective People, Stephen Covey.

12) IVR Culture Document

13) IVR Vision Statement

14) IVR Navigational Chart to the Cures

15) IVR Motto and Mantra

16) IVR Aphorism

17) Expectations for MOL Staff

18) Expectations for MOL Boss

19) IVR Recruiting Statement

20) Leadership Goals in the IVR

21) How to Get Promoted, Milton D. Stone, Jr.

22) Courage to Hope and Courage to Help

23) A Connecticut Yankee in King Arthur's Court, Mark Twain.

24) Johann Wolfgang von Goethe

25) The Artist's Way, Julia Cameron.

26) How to Swim with Sharks, Voltaire Cousteau.

27) A Theory of Human Motivation (1943), A. H. Mazlow.

28) Time Management, Edwin Stone.

29) <u>The Fifth Discipline</u>, Peter Senge.

30) <u>The New Economics</u>, W. Edwards Deming.

31) Teaching Points, W. Edwards Deming.

32) Introduction to Training, Milton D. Stone, Jr..

33) <u>Animal Farm</u>, George Orwell.

34) <u>Good to Great</u>, Jim Collins.

35) Annual Reading and Writing Goals, Edwin Stone.

Just Show Up

Just showing up - on time, rested, clean, appropriately dressed, and well fed - is half the battle (50%).

Having enthusiasm and maintaining a patient and positive attitude despite adversity is half of the remaining half (75%).

Knowing your likes and dislikes (and your strengths and weaknesses) accurately enough that you can formulate some clear life goals taht are well aligned with who you really are is half of the remaining half (87.5%).

Using the clear image of these goals to guide your decisions in such a way that you spend most of your time doing things that you enjoy and are good at is half of the remaining half (93.75%).

Surrounding yourself with people who are honest, optimistic, and who like you for who you are, is half of the remaining half (96.875%).

Being honest with yourself and others – and obeying the ethic of reciprocity in everything you do -- is half of the remaining half (98.4375%).

If you do all of these things most of the time, it has been my experience that good fortune can be counted on to fill in any gaps that occur and to carry you well beyond your original dreams and goals.

– Edwin M. Stone

Maintaining Proper Bit Speed
(and other tips for young clinician scientists)

Edwin M. Stone

One of the many privileges of working in an academic medical center is the opportunity to share career advice from time to time with bright enthusiastic people who will become the medical leaders of the future. The following comments began as a series of after dinner remarks that I made to some MD/PhD students at the University of Iowa in 1998. Someone at the dinner suggested that I write them down. I added a few things in the ensuing years and these fifteen ideas now represent pretty much everything I know about succeeding in academic medicine.

1) The basics your parents taught you: work hard, obey the golden rule, put some data in your book every day, read the literature, always join or stay at the strongest institution that will accept you, that is well-aligned with your temperament and values, and that your family situation will allow you to accept.

2) Strive for synergy between medicine and science in your career. Such synergy doesn't usually happen by accident -- but can almost always be achieved if its importance is recognized. Synergy is the big advantage clinician scientists have over those who pursue science or clinical medicine alone. Without it, the additional training and responsibilities associated with the combination of research and medicine will always be a negative compared to either alone. With it, a clinician scientist can do things that cannot be easily achieved in either sphere alone.

3) Develop your own internal compass early in your career. Be honest with yourself about things you like and are good at and things you don't like or are not so good at. There are lots of people around who will have very strong opinions about what type of doctor you should be and what types of projects you should tackle; but, unless they are very much like you -- and/or, unless they know you very well, their opinions will more likely reflect things they wished they had done instead of things that you should really do. Although at any given time, certain subspecialties of medicine, certain laboratory approaches, and certain scientific problems are very "hot", in the long run, you will do far better by following your own likes and dislikes, interests and lack-of-interests than someone else's best seller list. The reason for this is that there is tremendous power and joy in doing something that you like and that you do well.

4) Have some specific goals for your life, both professionally and personally, at all times. Write them down. Periodically get them out and look at them. Use them to help you make major life decisions. It is OK to change your goals, but you should never be without them. And remember:

Dream no small dreams for they have no power to move the hearts of men – Goethe

5) Find one or more colleagues to share your scientific life with. You don't need many, but these people have to meet strict criteria. They have to be a lot like you so that you can understand them and they you. They have to be honest with you when you ask them their advice and you have to have enough self-confidence that when they are honest with you it doesn't hurt your feelings. You need to support and promote them as you would like them to support and promote you. You need to try to spend at least 50% of the time you have with these colleagues, ideally 99%, talking about exciting new scientific stuff and you should make sure that you talk about unpleasant stuff only when you absolutely have to, i.e. to enlist their support and advice -- never just to whine.

6) Develop strong relationships with capable, trustworthy collaborators and as you become a more established scientist, strive to share increasing amounts of credit, resources and ideas with them. Sharing valuable resources, credit and ideas with hard working, smart and trustworthy people is almost always a good investment and almost always allows more progress to be made than working alone. Lead the parts of each project that you are most qualified to lead, and allow others to lead the parts of the project for which they are most qualified. Whenever possible, strive to make "a substantive non-duplicative contribution" to an important body of work instead of striving for the more conventional goal of "independence". Seeking "independence" for its own sake tends to result in intellectual isolation and unnecessarily small projects. In my opinion, it is far better to be a significantly contributing middle author on a 35 author paper reporting major scientific progress than to be the only author of a paper reporting moderate incremental progress. Of course, it is ideal to be the senior author of the important paper. However, with healthy collaborations and shared leadership, you'll have a bunch of those, too.

7) Learn to compete against disease and ignorance and waste instead of other people. Compete against yourself, too, by trying to increase your knowledge, mental toughness, physical stamina, and leadership ability every year. Learn to celebrate others' success, especially when this success truly moves the ball forward for society as a whole. There is and always will be plenty of important work for everyone to do.

8) Strive for a high completion to work ratio. It is much better to work on three projects and get them all completed and published, than to work on six projects over the same period of time and not complete any of them. Michael Faraday (1791-1867) said this very succinctly: "Work, finish, publish."

9) Try to avoid pessimists, especially early in your career. Although there is undoubtedly some value in a pessimist's point of view, it is usually a poor trade for the emotional pain and lack of momentum they cause. Prolonged contact with pessimists can make one's scientific pilot light go out -- sometimes permanently.

10) Maintain your joy of discovery. When you were born, your innate desire for discovery was strong. The practical realities of adult life tend to blunt and weaken that sense of joy.   If you start to forget what the joy of discovery is all about, take a compass, a telescope, or a chemistry set to an elementary school class -- the lower grades are best -- and teach the students something. In return, these children will re-educate you about the joy of discovery, and the creative energy that flows from it.

Knowledge leads to confidence, confidence to enthusiasm, enthusiasm to success. Success builds on itself. – M.D. Stone, Jr. (1969).

11) Maintain an awareness of the privileges you enjoy and the societal responsibilities associated with them. Few humans who have ever lived are as privileged as clinician scientists in the 21st century. An average first year medical student has much more money than an entire family in most parts of the world. But, in addition, he or she has the very real potential of eventually managing millions of dollars of public resources contributed by all levels of society and using these resources to pursue scientific questions they find interesting and important. An insecure unhappy pessimist wandering loose in a research institution can make a whole roomful of young clinician scientists lose their awareness of this tremendous privilege -- and worse -- make them feel that all of the minimum wage earners working in un-air-conditioned factories actually owe them something more than a net worth in the upper 1% of the population of their country and freedom to pursue their own scientific interests. As a result, people who are actually among the most privileged people in the world fail to appreciate and enjoy their privilege and also fail to feel any need to give anything back to the society that has given them such wonderful opportunities.

I feel that the greatest reward for doing, is the opportunity to do more – Jonas Salk

12) Strive to maintain the optimum bit speed throughout your career. When drilling holes, there are at least two ways to fail. First, one can fail to press against the work and let the drill just spin freely in the air. While easy on the motor, the driller will ultimately be dissatisfied because of a lack of any meaningful achievement in his or her career. At the other extreme, one can load up a large diameter bit and put a ton of pressure against dense wood and amid the smell of burning sawdust and ozone, the motor will fail, permanently. In medical science, the board changes density every day, the bit changes diameter and sharpness every day, and even the line voltage to the drill varies. One must be constantly vigilant to make sure that permanent injury to the drill doesn't occur, while still striving to drill a lot of pretty big holes. One must recognize the signs of dissatisfaction at either extreme, spinning in the air or excessive coil amperage, and respond appropriately. Good self-awareness, a close relationship with your family, and a close honest colleague are essential to be able to do this well. It is especially important to realize that people more distant than your family or close colleague, e.g., your immediate supervisor, the NIH, the journal you review for, etc., are useless in helping

you determine proper bit speed and such individuals will frequently encourage you to apply unsafe levels of pressure to the drill.

13) NEVER feel sorry for yourself. There is no time. You have been chosen by society to help people. There is too much important work to do to waste even a single hour feeling sorry for yourself. Go take a nap or a shower – get on some clean clothes or scrubs -- and shake off whatever personal injury, insult or disappointment you just experienced. Get back in the game.

Even if your grant doesn't get funded, or your paper doesn't get accepted or you are sitting alone in a hotel room with no room service, no one to join you for dinner, ten inches of snow outside OR all of these at the same time, you are still one of the most privileged people who has ever lived. You have had more attention and more resources devoted to you in the past year than most people on earth have devoted to them in their lifetimes.

If these altruistic reasons aren't enough for you, how about this: do you want to succeed? Your reading of this document suggests that you do. You are more likely to succeed with your paper or grant next time if you can maintain your good attitude, enthusiasm and your overall sense of well being – while someone else applying to the same grant agency or submitting a paper to the same journal spends part of his or her time being "down". Distributed across your whole organization, your smile and your optimistic attitude create more smiles, more focus, more security and more happiness for your folks. Your self-confidence breeds more self-confidence while the other person's whining slows his colleagues down.

14) When under duress, seek advice from people with more power, more resources and more experience than you have -- not solace from people with less power, resources and experience. Be prepared to have these powerful people tell you things that you don't want to hear (e.g., the duress may be of your own making to some degree). They may not be right in this case (you will be the final judge of that), but their power, resources and experience suggests that you should listen carefully to what they say and consider it very seriously.

15) Finally, be very wary -- almost fearful -- of personal recognition.

Personal ambition for fame is perhaps the greatest single threat to a scientist's career. It clouds his thinking and confuses his emotions. It makes him say "I" when the truth is "we" and "we" when the truth is "they". It upsets him when some other scientist has a breakthrough when he should be happy that society has moved 100 yards further out of the wilderness regardless of who was wielding the compass and map when the movement occurred. He becomes preoccupied with being "first" instead of being preoccupied with contributing to a comprehensive solution to an important problem.

Having said that, a person with no ambition at all is a lousy leader and is unlikely to persevere in the face of large obstacles. A person with little or no ambition and no track record of success is unlikely to inspire people who control important resources -- which are absolutely necessary for developing a lasting solution to an important problem -- to put those resources into his or her hands.

So, ambition is an essential, powerful, and dangerous tool. Like a chainsaw, if its power is respected, it can be an important contributor to the solution of a large problem. If it becomes an end in itself, it will probably end up killing one or more people who are the closest to it. So, I try to keep the chainsaw gassed up and sharp, but I also try to keep it in the case most of the time, I always wear safety glasses and gloves when using it, and I NEVER forget that it is just a tool.

Success

Milton D. Stone, Jr.

Canada, 1969

And let's call it like it is, they call it calling a spade a spade. How do we stack up within ourselves? Because as we talked about, we become what we think about. What do we really and truly think about ourselves? I hope it's very good. But we've got some different places that we need to discuss it, and this first one, this next question is the most important question in the book, and it says "Do I really want to be successful?" Underline that. "Do I really want to be successful?"

We get around all the bogus business now, we get around – we cut all the frills off and all the lace off and get right to the heart of it. This is, this is utmost here. Do I really – ME, me I'm talking about – do I want to be successful. Am I ready willing and able to exert the necessary effort? Am I lazy? Most of us are. We can control it, however.

Am I willing to sacrifice some of my time and effort? When you take that book Psychocybernetics, and it ain't too long a book, and it might take you a little while to read it and you might do it in 30 minutes a day or you might pick it up and you can't put it down. But however you do it, this is taking some of your time away from some other times that you could be watching TV or playing golf or riding in a boat, or something like that. But I want you to think about the people you know who are successful and ask yourself this: ""Is there anybody that I know that is successful that doesn't spend some outside time keeping himself successful?" And you don't know anybody. A doctor goes to school for a hundred years and then you go into a doctor's office today and what do you see? All these journals and stuff that's come in where he's got to keep up -- and you've got to keep up. The guy that goes to Dale Carnegie for 13 nights – not days, but 13 nights, from maybe 8 o'clock to 11:30 – this guy wants to be successful. This guy's putting out some extra time to get there.

Is my attitude right? Is it positive? Do I have a clear picture of my objective? Write this down: "Do I have an objective?" Really? Do I have one?

During adverse conditions do I redouble my efforts to succeed? Well we all go through bad times. We can cut down on these bad times a lot. But I remember this great big old fat salesman, and I think the best salesman I ever met and worked with in my life, and he's still in that dealership where I was up until 19 months ago. And just about every year he was the best one. And he'd see a bunch of men standing around on an old dead day you know, and somehow or another he didn't have any of these bad days. Not too many of them. He was always there when you called the roll you know. But he'd, he'd want to needle them a little bit and he'd walk up and he'd say "Boss" he said "you know when things get too tough for everybody else they're just right for me and you, ain't it?" And he was kidding. He did it in front of these people just to kind of pump them a little bit, but basically he wasn't kidding because that's what he lived by. Things just didn't get too tough for this fella. He found a way. And therefore he was successful and he was happy.

Am I respected? I didn't say liked. It's nice to be liked and respected too but it's important to be respected.

Can I discuss intelligently – without anger – things that have to do with me? We call this constructive criticism. Some people cannot. They have something up here called a chip. And you know you talk to a guy like that and he blows off at you two or three times and the first thing you know, if you can't open your mind to constructive criticism, the first thing you know, people don't care anymore and you're out there on a island all by yourself and ain't nobody going to help you. And this is the most pathetic creature in the world. The man that's alone.

How about your dress? Now a salesman is supposed to dress like a salesman. There's just one kind of general guide about being a businessman. Now you're, you're just as much of an executive as any other salesman who is an executive. Now they say if you spend an hour with a man and then go off somewhere for ten minutes and somebody says what color suit did that guy have on or what did he have on and you can't remember, then that man's well dressed for business. On the other hand, if he's flagrantly violating the local rules so to speak, you will remember him. So be more or less conservative. Be clean, be neat. Keep your hair cut, your shoes shined that kind of thing. Take a bath every now and then.

How are my manners? How about your manners, now? You know the British Empire invented manners, I guess. They developed them to the highest degree. We all come from that same place. We just got off a little quicker than you all did. But manners really are what separate the highly civilized individual from the guy that is uncivilized. That's what manners are. You can take courtesy and manners and friendliness and empathy and sincerity and things like this with only two days of training and do more with it than the bull in the china closet can do with nine diamonds in his Master Salesman button. This type of thing will carry you somewhere so make sure you work on your manners. If you need to.

Your health, we talked about that a little bit. Bad habits. Drinking, smoking, gambling. Well, it seems that all salesmen, I haven't known too many salesmen for example that don't drink a little bit. I don't know why. Of course, I don't drink at all – during the day. But anyway, there's a difference between having a couple or three drinks and having a couple or three bottles. Huh? So let's write one little ole word down there under that thing and then – all of us got some bad points, but let's do this: MOD-ER-A-TION.

Eight Rules for Positive Thinking

(from: Psychocybernetics by Maxwell Maltz, M.D.)

1. I will be as cheerful as possible.

2. I will try to feel and act a little more friendly toward other people.

3. I am going to be a little less critical and a little more tolerant of other people, their faults, failings and mistakes. I will place the best possible interpretation upon their actions.

4. Insofar as possible, I am going to act as if success were inevitable, and I already am the sort of personality I want to be. I will practice "acting like" and "feeling like" this new personality.

5. I will not let my own opinion color facts in a pessimistic or negative way.

6. I will smile more often.

7. Regardless of what happens, I will react as calmly and as intelligently as possible.

8. I will ignore completely and close my mind to all those pessimistic and negative "facts" which I can do nothing to change.

Attitude is Everything

Edwin M. Stone

Attitude is everything.

Work, finish, publish.

Prioritize. Conserve valuable resources (waste not, want not).

Appreciate what you have every day.

Be genuinely grateful to those who are helping you, trying to help you, and have helped you. Convey that appreciation frequently.

Say please and thank you a lot.

Recognize that you are fallible and could be better at your job. Admit your mistakes readily and apologize for them genuinely.

Don't run afoul of your valuable collaborator's "go to" person under any circumstances.

Try not to find fault with (or complain about) the leader of your team too much (unless and until you are ready to be the leader yourself or to find another team).

Don't be a victim. If you are really being hurt, get help or get out. If you are just being annoyed or stressed, identify the sources of your annoyance and stress and work on them one by one (largest to smallest) until your annoyance and stress is at a tolerable level. Remember that everyone has annoyances and stresses in their day and they don't want to spend a bunch of their precious time talking about yours unless: 1) it is a relatively rare occurrence and 2) by doing so it will durably solve your problem.

Envisioning the Future:

Writing Personal Mission and Vision Statements

Edwin M. Stone

The mission and vision statements of an organization are a form of succinct communication among leaders, workers and supporters about the goals and purposes of the organization. When accurate, specific and meaningful, these statements help people find organizations to lead, belong to and/or support that are in good alignment with their personal values.

Personal mission and vision statements are very different. They are a form of internal communication with yourself. Well what could be easier? Who knows you better than you? Usually lots of people, especially at the beginning of your career.

Education in medicine and biomedical science is so scripted and driven by competitive admission processes and various "matches" that people in these fields can easily get to age 30 having never really thought about who they are, what they want to be and how they want to get there (imagine someone putting a golf ball into a very long PVC pipe at age 18 and having it shoot out the other end at age 30). One advantage to the choices that are not entirely your own in the first 3 decades of your life (e.g., a "match") is that you will likely find yourself at least occasionally in unfamiliar territory geographically, politically, socially, and/or economically. You should welcome these experiences and think a lot about your responses to them, because these responses will help you better understand what you really want from your life.

When you start trying to write your vision of the future down on paper, you will usually find a bunch of ideas that belong to other people admixed with your own true feelings and beliefs. It is important to detect and understand the difference in your and others' ideas if you want to live your own life and not someone else's.

It will take several cycles of writing, reading what you write the next day, editing, reading what you edit the next week, etc., before the document will start to become familiar to you and start sounding like your own voice and dreams instead of a cacophony of other people's voices and dreams.

As part of this whole process you should also formally assess your Jungian personality type and core values using established instruments. When you have got your mission and vision statements right, they will be in good agreement with your formally measured personality type and values.

To begin, try to create a vivid picture in your mind of who (and where) you would like to be 15 or 20 years from now. Get a blank pad of paper and go to a quiet place where you will not be disturbed for a while. Write down the things that you are good at and/or like to do. Write down the things that you are not good at and/or don't like to do. Who are your role models? What parts of their lives do you most admire and would you most like to emulate in your own life? If you were in control of all variables, what would you most like to be doing 15-20 years from now? Imagine it in detail. What city would you live in? What kind of practice would you work in? Would you do research? What would be your main project if you had funds to start

on it today? What would your house or apartment look like? Are you or would you like to be married? Do you or would you like to have children? How many? What type of work does or would your spouse be doing in your vision of the future?

The more you can imagine these things in detail, and think about them as real, the more likely they are to happen. The less clearly you envision these things, think of them as real and believe in them, the more likely the world will just deal your life to you randomly.

VERY IMPORTANT: You should not show any of the writing that results from this exercise to anyone until both of the following conditions are met: 1) the statement has been in use by you for at least 10 years, and 2) you are sharing it in person with a junior colleague you are mentoring about how to write mission and vision statements (unless you are retired at which time you can share the whole thing with anyone you wish, even in print or on a website). Any other sharing of these statements as statements will corrupt them and make them unlikely to be true for you. You should only talk to yourself here. Be honest. No one else is listening (an uncommon situation in most adults' lives).

So, how do mission and vision statements differ?

A vision statement answers the question: "What would you like a small group of people you admire and respect the most to say about you among themselves (or publicly) after you retire?"

Or even better, after you have retired, as you sit on your back deck with some cheese and crackers and some preferred evening beverage in your hand what will your personal assessment of yourself be? You will be very satisfied that you have always been . . . what? And/or, you are most pleased that during your career, you achieved . . . what?

My current personal vision statement has 56 words.

In contrast, a "daily mission" statement is a list of the things that you believe you need to do day in and day out between now and the day you retire if you want the outcomes in your vision statement to come true.

To help you get started on your own daily mission items list you can ask some of your mentors and/or role models for a few of the things they think about frequently and consider important guiding their daily decisions.

My current "daily mission" statement has 32 bullet items (368 words).

Please start working on this now and keep these documents current and meaningful to you for your entire career. It is the single most important thing you can do to ensure your success.

The Culture of the University of Iowa
Institute for Vision Research

- We try to apply the ethic of reciprocity (the golden rule) to everything that we do.
- We take our work very seriously, but we don't take ourselves too seriously.
- We communicate with each other frequently and use that communication to create a shared vision of our shared mission. The pursuit of this mission is our number one professional goal.
- We know that the pursuit of a worthy goal in a collaborative fashion is such an efficient and enjoyable way to work that it will always result in more total progress than if each of the members works alone.
- We know that a collaborative approach will also result in more personal rewards for each of the members of the group.
- We operate in a horizontal structure such that most of the time we are working WITH each other instead for FOR someone.
- Each member of the group needs to be able to lead well but they also need to be able to participate effectively and enthusiastically when they are not the leader.
- We have an abundance mentality instead of a scarcity mentality. We believe in creating more for everyone instead of fighting over a fixed or shrinking pie.
- We put at LEAST as much into the collaboration as we take out—financially, creatively, and administratively.
- We believe in the career development of new faculty members.
- We treat our trainees as colleagues and future peers. We are not threatened by their success or progress, but rather view their accomplishments as the desirable result of our teaching and guidance.
- We maintain a perspective of privilege instead of one of entitlement.
- We feel the need to earn our spot in the group every day, by honestly striving to be the best at what we do.
- We believe that samples, photographs, and data that are collected through the efforts of our group should be shared among the group.
- Although we greatly value the individuals who make up our group, we believe that in most cases, an idea, a paper, or a grant can be significantly improved by sharing it with one or more other people.
- We value the support and advice of our colleagues.
- We trust our colleagues to be honest with us and we value that honesty.
- We turn to each other for help and advice when we need it and provide help and advice in return when it is sought.

- We are optimistic, believing in each other and in ourselves.
- We intend to, and we will, succeed.

IVR Vision Statement

We will get the <u>right</u> genetic answer for you -- as well as a state-of-the-art clinical assessment -- to prepare you for one of our multiple, simultaneous, financially feasible, clinical trials of gene and/or stem cell therapy.

IVR Navigational Chart to the Cures for Heritable Blindness

- Work primarily within a nonprofit, philanthropic culture.

- Share ideas freely; publish quickly, share detailed methodology when asked.

- Leave no one behind; work on lots of different diseases (early and late stages) and lots of different genes at the same time.

- Reduce waste; avoid detailed annual reports, institutional overhead, and unnecessary administrative layers.

- Work primarily within institutions that are large enough to have the necessary infrastructure to support the work but small enough to allow the close personal involvement of (and real partnership with) institutional leaders at the highest levels.

- Confine discussions of progress and plans to published papers, formal scientific presentations, scholarly films, and closed meetings with existing and potential major supporters.

- Replace animal models with cultured cells whenever possible; use cells for efficacy, animals for safety.

- Reduce the cost and improve the sensitivity of genetic tests, so that one can find patients who might wish to join trials and, find the remaining disease-causing genes.

- Develop philanthropically funded GMP facilities to reduce the costs of therapeutic vectors and cells.

- Employ robotics wherever possible to increase throughput and quality and decrease costs.

- Develop reusable gene therapy strategies, especially genome editing methods for large and/or expression-sensitive genes.

- Develop cell therapies based upon patient-derived stem cells, to reduce the risk of immune rejection.

- Analyze existing clinical data to determine the best timing and anatomic location for therapy.

- Focus almost entirely on Phase I-II clinical trials with long but fairly conventional follow-up.

- Carefully evaluate the "better to now" ratio at least quarterly and: 1) avoid changing course for small improvements; 2) avoid delaying clinical deployment of a treatment on the basis of theoretical but currently undemonstrated future improvements; and, 3) be prepared to completely discard any element of the current strategy if a large future benefit in speed (toward the goal) or effectiveness (of the eventual treatments) can be gained by doing so.

- View every aspect of our work from the perspective of the clinical outcomes we want (and the realities of the diseases we are facing) instead of the perspectives of financial benefit, customary practice, or personal convenience.

- Do everything with a sense of URGENCY.

Dear Friends,

From time to time I am asked what the Latin phrase in our IVR logo means. As you know, the literal translation of this motto is that "we live for the cure".

What does it take to really live for the cure?

It takes awareness, caring, idealism, intelligence, creativity, courage, optimism, confidence and discipline.

Some people in the IVR family say prayers. Some meditate. Some periodically invoke the sleeping powers and muses within themselves.

The attached invocation or mantra can be used for any of these things by simply adding an appropriate salutation and closing and/or changing the plural pronouns to singular ones.

Thanks for being such an important part of our mission.

Regards,

Ed Stone

We Live for the Cure

Help us to care enough and be idealistic enough to believe that this need is our responsibility.

Give us the intelligence and creativity to solve this problem.

Give us the courage to keep working on this problem despite the peril to ourselves and our families.

Help us to be optimistic enough to believe that we can do it.

Help us to be confident enough to KNOW that we can do it.

Help us to be disciplined enough to do it.

IVR Aphorism

Cure eventually

Help often

Comfort always

All but two words of this saying are derived from the literal translation of a French folk saying that dates at least from the 15th century:

Guerir quelquefois,

Soulager souvent,

Consoler toujours

or

To cure sometimes

To relieve often

To comfort always

Although over 500 years old, this saying is most often associated with Edward Livingstone Trudeau (1), a physician who spent his life caring for people affected with tuberculosis. When Trudeau died in 1915, a statue of him was created by the sculptor Gutzon Borglum (2) (who is best known for carving the images of four presidents on the side of Mount Rushmore). Borglum added the French saying to the base of the statue, presumably because it was a favorite of Trudeau's.

For the IVR motto, we have substituted the word "help" for "relieve" simply because it sounds a bit more modern and more active. The substitution of the word "eventually" for "sometimes" has a deeper -- and to us, important -- rationale. The word "sometimes" implies that a cure (meaning a nearly complete eradication of a disease) is either possible or not. While this is undoubtedly true at any point in time, many of the diseases that we work on affect people for decades; and, we are convinced that some diseases that cannot be cured today <u>will</u> be cured during the lifetimes of some of our patients. The word "eventually" adds the concept of a cure in the future. The word "eventually" has a second important connotation and that is "the progressive realization of a worthy goal", which was Earl Nightingale's (3) definition of success. That is, success is not an all or none quantity determined at a single point in time, but rather a process that leads steadily to the achievement of the worthy goal. Thus, for us, the word "eventually" conveys a long-term commitment to achieving the ambitious goals laid out in our mission statement.

One of the most important means of providing comfort employed by the members of the IVR is to provide patients and families with "realistic hope" for a cure. Realistic hope

requires a detailed feasible plan AND a group of capable people dedicated to executing that plan until it is successful. The last line of the IVR "culture document" reads: "We intend to, and we will, succeed."

Our commitment to effective cures for heritable blindness is also conveyed by the institute's motto: vivimus enim remedium (we live for the cure).

For those of us who care for patients with progressive, potentially blinding conditions, Dr. Trudeau's life and work are a source of hope and inspiration. His work as a physician and scientist spanned barely more than 30 years (1882-1915) and at the time of his death in 1915, a reliable medicinal "cure" for tuberculosis undoubtedly seemed quite a bit less likely than a cure for macular degeneration or retinitis pigmentosa seems today. Penicillin, the first antibiotic, wouldn't be discovered until 1928 (4). Still, Trudeau painstakingly pursued the cause of the disease (becoming the first in the United States to culture the causative organism) and the beneficial effects of fresh air and exercise. His sanitarium in the Adirondacks treated tens of thousands of patients, helping and comforting, until the cure that he envisioned finally gained the upper hand, and the sanitarium closed in 1954. What a concept! Imagine the day that a specialized facility for the study of macular degeneration, glaucoma, and other hereditable eye diseases is no longer necessary because the diseases have been nearly eradicated.

1) http://www.trudeauinstitute.org/info/researchaccomplish.htm

2) http://www.pbs.org/wgbh/amex/rushmore/peopleevents/p_gborglum.html

3) http://www.nightingaleproducts.com/bios.html

4) http://www.nobel.se/medicine/educational/penicillin/readmore.html

IVR Molecular Ophthalmology Laboratory
Staff Performance Expectations

A good staff member is:

- **MOTIVATED**

Has some defined personal and professional goals
Understands and believes in the lab's goals
Looks for ways to align their individual goals with the lab's goals
Knows that an individual can make a difference by developing clear plans and executing them

- **INQUISITIVE**

Actively seeks to understand their projects and the relevant techniques and willingly shares this knowledge with others
Is open to learning new techniques and accepting new responsibilities
Understands that a person who is not growing intellectually, is dying
Is willing to reveal that they don't know something by asking a question

- **ENTHUSIASTIC**

Exhibits enthusiasm for their projects, the work of their co-workers and the field of vision research in general

Shows initiative – is a self-starter

- **OPTIMISTIC**

Maintains and displays a realistic positive attitude
Believes that the lab will succeed in making a difference for people with blinding diseases

- **HONEST**

Would never intentionally "work around" a safety step in a protocol, alter data, or take any other action that could harm a patient or the reputation of their lab.
Reports mistakes promptly so that the damage can be minimized

- **OPEN MINDED**

Is willing to consider new approaches
Recognizes that each member of the team is capable and valuable
Understands that diversity of temperament, personal experience and style is a significant and desirable strength for the lab

- **POLITE**

Is careful to avoid words or actions that would make a co-worker feel intimidated, uncomfortable, or out of place

Recognizes that whispered conversations and closed doors are divisive
Understands that body language can be just as effective or objectionable as spoken language

Obeys the "golden rule" in everything that they do

- **PROFESSIONAL**

Does not take differences of opinion personally nor remember such differences after they have been resolved

Strives for stability and predictability in interpersonal interactions

- **APPRECIATIVE**

Recognizes the cumulative nature of research and the value of other contributions to the project

Has a perspective of privilege for the responsibility that has been entrusted to them by their supervisors, coworkers, patients, and donors

- **ORGANIZED AND EFFICIENT**

Understands the value of careful planning and using every minute to good advantage

- **DISCIPLINED**

Knows that a successful person does what the unsuccessful one won't

- **A TEAM PLAYER**

Looks for ways to help co-workers on a daily basis
Keeps lab director informed of career plans
Follows existing laboratory protocols closely
Replenishes supplies, shares space and instruments fairly
Is willing to accept roles suggested by the lab director

- **AN EFFECTIVE COMMUNICATOR**

Actively participates in lab meetings
Accepts and gives advice constructively
Brings problems and concerns to attention promptly so that they do not grow into larger ones
Interacts positively with all co-workers

- **DEPENDABLE**

Can be relied upon to do AT LEAST their share of the lab's work

- **CAREFUL**

High accuracy is a daily goal – our patients and collaborators are counting on it

Is skeptical of all results (especially their own) and understands that a valid "negative result" is much more valuable than a questionable "positive" one

- **PUNCTUAL**

Works 8:00-5:00

Limits lunch to an hour

Arranges breaks around the work – not the reverse

- **MINDFUL OF UNIVERSITY WORK RULES**

Does not conduct personal business during work hours

Limits sick time and unscheduled vacation time

IVR Molecular Ophthalmology Laboratory

Boss Expectations

In <u>addition</u> to the things that all members of the lab should do, the boss should:

- Have a set of goals and a plan for achieving those goals.

- Explain (sell) the plan to his co-workers with sufficient frequency and enthusiasm that all of his coworkers:

    1) can understand the importance of the goals in real, human terms;

    2) will know their role in the plan and feel that it is appropriate and important;

    3) will feel that the majority of the plan is exactly the right thing to be doing; and,

    4) can see tangible progress toward the goals.

- Work to obtain sufficient financial and political power to be able to:

    1) execute the plan;

    2) acknowledge and appreciate his coworkers for their excellent work;

    3) protect his coworkers from unexpected adversity.

- Publish and present the group's work in a timely fashion so that it can have the greatest possible impact on the scientific community.

- Always display a positive attitude. He should be unfailingly optimistic that the group's goals can and will be achieved.

- Be a problem solver. He should establish a track record of behavior that inspires confidence that he can overcome virtually any obstacle that should present itself to one of his coworkers.

- Take criticism constructively, even when it is not given in a constructive way.

- Work at least as hard as anyone who works for him.

- Avoid being the bottleneck. When the boss becomes the limiting factor in any process, he should strive to delegate the limiting parts of the process to others. He should constantly share his management strategies and experience with his coworkers so that when he does delegate a task, the person to whom it is delegated will be able to successfully execute the task.

- Maintain one on one contact with as many of his coworkers as possible.

- Treat every one of his coworkers with the same respect and consideration that he expects from them.

- Never act in such a way that loyalty to himself would result in disloyalty to the group or the group's goals.

- Accept <u>all</u> the responsibility for the mistakes and failures of the group, while sharing credit and recognition for success with its members.

- Remember that a little bit of criticism goes a long way.

- Require and maintain a sense of fairness in the workplace.

- Have high expectations for his coworkers. He should not allow anyone to work below their ability, nor should he knowingly place people in situations where they are likely to fail. He should never give unearned praise or undeserved criticism.

Who are we looking for?

We are looking for people who love medicine and/or molecular biology, who are naturally energetic and curious, who want to learn new things and who want to get better and better at what they do so that they can play larger and more important roles in their lab and in some cases spend their entire careers in the IVR organization. These people need to be intelligent and "catch on quickly." They need to be capable of executing complicated and ever-changing tasks accurately. They should love the idea that the work they are doing is part of a "mighty undertaking" and that it is making a real difference in people's lives. They need to be so intrinsically honest that they would never intentionally "work around" a safety step in a protocol, alter data, conceal a mistake or take any other action that could harm a patient or the reputation of their lab. We want every member of the IVR to feel that their work is a very meaningful part of their life and as a result, to really value their job – not just think of it as a means of paying their bills. We want every member of the IVR to understand and really believe that their lab's success will result in their own personal success (i.e., financial security, a sense of belonging and personal value, and "self actualization"). We want our colleagues to look forward to completing the task they are currently working on as quickly and efficiently as possible so that they can get this project/paper/report out the door (with the best quality in the world) and move on to the next important thing. We want them to exhibit the behavior of the best members of an expedition, always asking themselves and their colleagues "What can I or we do next?" to get the whole group quickly and safely to the next campsite. Members of the IVR should know how to (and be willing to) "take charge" when appropriate and "follow" when appropriate.

Leadership in the IVR

Leaders are stable and predictable, they are slow to anger and do not take their personal or professional frustrations out on their co-workers either verbally or non-verbally.

Leaders are approachable. They do not use intimidation to control people or projects.

Leaders develop and maintain a <u>genuine</u> positive attitude. If there is something they don't like or are concerned about, they address it with their co-workers or supervisors right away so that they can feel good about their projects and their co-workers. Leaders couple their satisfaction with their environment and their confidence in themselves and their co-workers to create a sense of optimism that most problems can be overcome.

Leaders have sufficient self-confidence and self esteem that they can take criticism constructively, even if it is not presented to them in a completely constructive way.

Leaders tend to give more recognition to other people than they demand or expect for themselves. The ideal leader accepts all responsibility for problems and/or bad outcomes that occur in his or her unit while sharing the recognition or benefits that result from the good outcomes.

Leaders lead by example. They follow all the rules to the letter do not push the limits of any policy.

Leaders want and expect their colleagues to be accomplished successful people. They are not threatened by the knowledge or accomplishments of others. They spend significantly more time thinking about how they can be better at their own jobs than about how their co-workers could be better at theirs.

How to Get Promoted

Milton D. Stone, Jr.

Canada, 1969

But I think that one of the greatest tragedies that exists in this vast life we're living in today is the fact that we've got some men doing good jobs in companies, doing real good jobs, and men that have been brought up to believe that if you do a good job, and do your best, that the world's going to kind of take care of you. And they'll rock along in a job for maybe eight or ten years and all the time there thinking, you know, well maybe one of these days I'll be this or I'll be that and then one of these days happens, and they don't even not only get the job they ain't even considered for it. You're just a body out there without a name on it.

And so when this happens, you go off somewhere in a corner and you lay down like a dog licking a hurt foot and you feel like the world has done something to you and a lot of these people end up committing suicide, they get ulcers, they have nervous breakdowns and all this kind of stuff. See?

Now you can eliminate that, you can eliminate that, if you make it known to your boss what you expect to have out of this career that you've entered into. And if you are not going to be considered, now I don't mean promoted, I mean if you're not even going to be considered, somehow or another you will get the message, believe me. And when you get that message there ain't but one thing for you to do dad and that's get out. And go get you somebody else. But don't wait until it's too late. Don't wait until it's too late.

I'm going to give you a little example of how that worked for me now. I told you all about uh about this old Ford career that I had. And to make a long story short, in 1957 after a couple of years in this big dealership where I was the number two man, and had aspirations for being the number one man, my brother and I decided to get out of the new car business and become used car dealers. That's when the new car dealers were keeping the iron and wholesaling all the good stuff. So we decided that we'd get in on a piece of that pie. So we get in the used car business and we stay in it for 25 months, and at the end of 25 months we had not achieved what we wanted. We were very lucky. We made a living for 25 months, we sold everything we had and we ended up with $1000 apiece profit. And about all you can say out of that is we didn't go broke.

So we go back over to this dealership now where we had been the number two and number three man and they ain't hunting for no number two and number three men that day, see? So we go in there and we take a job on the sales force. And that was the first time in my life that I had ever been a commission salesman. Of course I had sold a bunch of automobiles as a used car dealer and as a manager and one thing and another, and I sold a few for my father. That's the first time in my life that I ever worked for somebody else on a commission just like you men are here. So I said to myself. I said, "Stone," I said ,"You're -- you got a little bit more education,

you ought to be running this place, but this is what you're going to do so let's get in there and do it and be the best one down here."

I said that to myself.

And I wasn't the best one but I was very near the best one. One month I was number two, one month number three, another month number four, and then number two, and kind of like that.

OK. Just rock, we rock along here for a few months and one of these days, this dealership's got about seven sales managers of various and assorted types, and one of them fell off the wagon one day and they needed to fill up a hole. So they call this big tall skinny boy in there and they asked him if he'd like to have that job running that little old mickey mouse used car lot. We had three of them. This was the littlest one. Well I was smart enough to realize that if I was ever going to come back up the pole so to speak this was a, was a, I had to grab on it there you know. So I said "Yeah."

So we're sitting in the dealer's office now. And this is a new dealer. This ain't the dealer that I had managed for before because he had been bought out, and all this guy knew about me was what he knew as a salesman. So finally, we're sitting there talking and uh the sales manager the general sales manager's talking a little bit and finally the dealer looks at me, and he's real sincere, and he looks at me and says "Mr. Stone you think you can handle that job?"

Well I don't know why it was but it just made me so mad I couldn't see straight. I mean it really did. Here I had been running that place before he ever got there and he wanted to know if I could handle the job. So, I looked at him, I said, "Mr. Caldwell, I says I can run the job that you've got. If you'll just get up from behind the desk, I'll sit down and start running it."

Well he looked at me, and blinked a little bit you know. And we didn't talk no more about that. First thing you know. First thing you know, you know we traded about what the percentage was going to be and all that and I went on out.

Well anyway, eleven months later, all these other guys had gone for some reason or another. One of them got a dealership, one of them got fired, and this that and the other. And, and eleven months later guess who the general sales manager was?

That tall skinny guy.

And I really don't believe that I would have been, except that I let him know from the day I came in there what I wanted. You see what I'm talking about? We had a real plain understanding on it. I knew it and he knew it and I was working toward it. And every chance I got, somebody would leave you know and I'd be sales manager for a month, you know, that kind of stuff. And finally, finally, I got the job. This is what we mean by being ready for

responsibility and accepting it when its offered and letting people know. If you're even, if you're a failure it's nice to know it and then you ain't got to worry about it no more.

Now men, I'm through. I'm through. We've talked here for a long time. We've talked for 9 weeks. I'm not going to talk to you any more except a little bit tonight at the graduation. We're going to have some distinguished people at that graduation, I certainly hope all of you'll be there.

I do want to say this, it's been my real pleasure to be with you in London. I'm going to come back to see you anywhere from two to four weeks from now depending on what dealership you're in. I hope you'll take some of these things now and put them to work and let them help you.

I enjoyed it.

Thank you very much.

Courage to Hope and Courage to Help

A 62 year old friend of mine affected with retinitis pigmentosa asked me recently whether she was too old to hope for an improvement in vision in her lifetime. She has many friends who would rather focus on coping with their vision loss than spend time trying to engage in or follow research that they believe will not come in time to help them.

It is a reasonable question because it takes courage to hope for something like this. Hope makes one vulnerable to disappointment. People with RP who are 62 have often been through several cycles of fear, hope and disappointment in their lives and it is understandable that some of them would want to avoid being let down again. Having said that, if people who are actually affected with these diseases aren't interested in helping pursue cures, who will be? Fortunately, it is in many people's nature to fight back against a threat and to try to prevent or reverse injury to others even when they might not be able to prevent or reverse the injury to themselves.

There is a parallel type of thinking in the minds of some eye doctors who tell their RP patients that "there is nothing you can do" and/or "you will go blind so you should start making preparations for this eventuality". I have often wondered why a doctor would say this to a patient when it is in many cases not factually true and when it is almost invariably hurtful. I have decided that these doctors are actually kidding themselves that they are being "honest" with the patient and telling them "the truth" when in fact they are mostly just refusing to share the responsibility of finding some help for them. "What if I say something hopeful to them and it doesn't pan out? What if they call me all the time and express frustration that the hopeful thing I told them hasn't happened yet? What if they want me to try to arrange genetic testing for them or a referral to a genetic specialist? Who is going to pay for all of this? I don't have time for that. No, better not get engaged. Just tell them the bad news and be done with it. They actually don't even need to come back to see me again."

Fortunately, some doctors and scientists are drawn to currently untreatable diseases and aspire to devise treatments even when the biological, economic and political forces seem fairly strongly aligned against it. It is in their nature to try to help, even at some peril to themselves and their families.

It takes courage to hope and courage to help. It is the combination of these courageous, optimistic, generous and resilient people – patients, family members, doctors and scientists – that will ultimately banish these diseases from the world.

EMS

Mark Twain on Loyalty

(from: *A Connecticut Yankee in King Arthur's Court*)

You see my kind of loyalty is loyalty to one's calling, not to its institutions or its office-holders. The calling is the real thing, the substantial thing, the eternal thing; it is the thing to watch over, and care for, and be loyal to; institutions are extraneous, they are a calling's mere clothing, and clothing can wear out, become ragged, cease to be comfortable, cease to protect the body from winter, disease, and death. To be loyal to rags, to shout for rags, to worship rags, to die for rags—that is a loyalty of unreason, it is pure animal; it belongs to monarchy, was invented by monarchy; let monarchy keep it. –Mark Twain

[In the passage above, I have changed Mark Twain's word "country" to "calling" to make the passage's message more obviously applicable to the practice of medicine. Twain's message to the monarchs and their vassals seems to be: "To the degree (and for the duration) that you can believe in the value of a certain calling and can support a rank and file person's heartfelt pursuit of it, you can enjoy some of the tangible fruits of this labor, and bathe in genuine appreciation for allowing great things to be done in your kingdom. To the degree that (or when) you don't (or no longer) believe in the intrinsic value of the calling, people who have some form of magic burning in their hearts and minds will either move to a more supportive kingdom or use their magic to alter the leadership of this one." –EMS]

A THEORY OF HUMAN MOTIVATION
BY A.H. MASLOW, 1943
Brooklyn College

https://www.simplypsychology.org/maslow.html
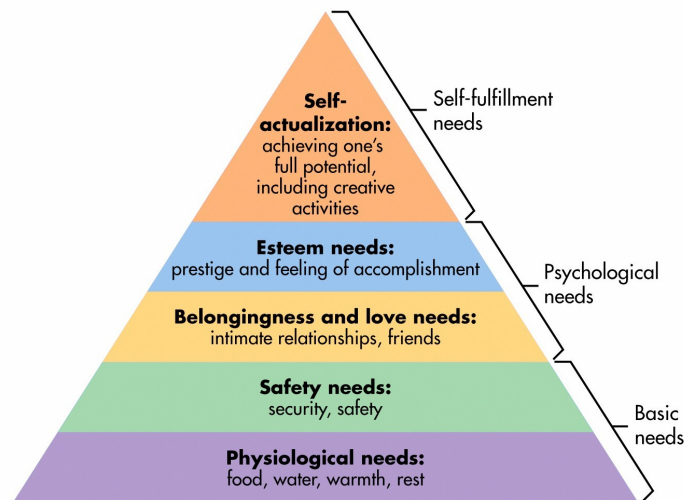
I. INTRODUCTION

In a previous paper (13) various propositions were presented which would have to be included in any theory of human motivation that could lay claim to being definitive. These conclusions may be briefly summarized as follows:

1. The integrated wholeness of the organism must be one of the foundation stones of motivation theory.
2. The hunger drive (or any other physiological drive) was rejected as a centering point or model for a definitive theory of motivation. Any drive that is somatically based and localizable was shown to be atypical rather than typical in human motivation.
3. Such a theory should stress and center itself upon ultimate or basic goals rather than partial or superficial ones, upon ends rather than means to these ends. Such a stress would imply a more central place for unconscious than for conscious motivations.
4. There are usually available various cultural paths to the same goal. Therefore conscious, specific, local-cultural desires are not as fundamental in motivation theory as the more basic, unconscious goals.
5. Any motivated behavior, either preparatory or consummatory, must be understood to be a channel through which many basic needs may be simultaneously expressed or satisfied. Typically an act has *more* than one motivation.
6. Practically all organismic states are to be understood as motivated and as motivating.

7. Human needs arrange themselves in hierarchies of prepotency. That is to say, the appearance of one need usually rests on the prior satisfaction of another, more pre-potent need. Man is a perpetually wanting animal. Also no need or drive can be treated as if it were isolated or discrete; every drive is related to the state of satisfaction or dissatisfaction of other drives.

8. *Lists* of drives will get us nowhere for various theoretical and practical reasons. Furthermore any classification of motivations must deal with the problem of levels of specificity or generalization of the motives to be classified.

9. Classifications of motivations must be based upon goals rather than upon instigating drives or motivated behavior.

10. Motivation theory should be human-centered rather than animal-centered.

n. The situation or the field in which the organism reacts must be taken into account but the field alone can rarely serve as an exclusive explanation for behavior. Furthermore the field itself must be interpreted in terms of the organism. Field theory cannot be a substitute for motivation theory.

12. Not only the integration of the organism must be taken into account, but also the possibility of isolated, specific, partial or segmental reactions.

It has since become necessary to add to these another affirmation.

13. Motivation theory is not synonymous with behavior theory. The motivations are only one class of determinants of behavior. While behavior is almost always motivated, it is also almost always biologically, culturally and situationally determined as well.

The present paper is an attempt to formulate a positive theory of motivation which will satisfy these theoretical demands and at the same time conform to the known facts, clinical and observational as well as experimental. It derives most directly, however, from clinical experience. This theory is, I think, in the functionalist tradition of James and Dewey, and is fused with the holism of Wertheimer (19), Goldstein (6), and Gestalt Psychology, and with the dynamicism of Freud (4) and Adler (1). This fusion or synthesis may arbitrarily be called a 'general-dynamic' theory.

It is far easier to perceive and to criticize the aspects in motivation theory than to remedy them. Mostly this is because of the very serious lack of sound data in this area. I conceive this lack of sound facts to be due primarily to the absence of a valid theory of motivation. The present theory then must be considered to be a suggested program or framework for future research and must stand or fall, not so much on facts available or evidence presented, as upon researches yet to be done, researches suggested perhaps, by the questions raised in this paper.

II. THE BASIC NEEDS

The 'physiological' needs.--The needs that are usually taken as the starting point for motivation theory are the so-called physiological drives. Two recent lines of research make it necessary to

revise our customary notions about these needs, first, the development of the concept of homeostasis, and second, the finding that appetites (preferential choices among foods) are a fairly efficient indication of actual needs or lacks in the body.

Homeostasis refers to the body's automatic efforts to maintain a constant, normal state of the blood stream. Cannon (2) has described this process for (1) the water content of the blood, (2) salt content, (3) sugar content, (4) protein content, (5) fat content, (6) calcium content, (7) oxygen content, (8) constant hydrogen-ion level (acid-base balance) and (9) constant temperature of the blood. Obviously this list can be extended to include other minerals, the hormones, vitamins, etc.

Young in a recent article (21) has summarized the work on appetite in its relation to body needs. If the body lacks some chemical, the individual will tend to develop a specific appetite or partial hunger for that food element.

Thus it seems impossible as well as useless to make any list of fundamental physiological needs for they can come to almost any number one might wish, depending on the degree of specificity of description. We can not identify all physiological needs as homeostatic. That sexual desire, sleepiness, sheer activity and maternal behavior in animals, are homeostatic, has not yet been demonstrated. Furthermore, this list would not include the various sensory pleasures (tastes, smells, tickling, stroking) which are probably physiological and which may become the goals of motivated behavior.

In a previous paper (13) it has been pointed out that these physiological drives or needs are to be considered unusual rather than typical because they are isolable, and because they are localizable somatically. That is to say, they are relatively independent of each other, of other motivations and of the organism as a whole, and secondly, in many cases, it is possible to demonstrate a localized, underlying somatic base for the drive. This is true less generally than has been thought (exceptions are fatigue, sleepiness, maternal responses) but it is still true in the classic instances of hunger, sex, and thirst.

It should be pointed out again that any of the physiological needs and the consummatory behavior involved with them serve as channels for all sorts of other needs as well. That is to say, the person who thinks he is hungry may actually be seeking more for comfort, or dependence, than for vitamins or proteins. Conversely, it is possible to satisfy the hunger need in part by other activities such as drinking water or smoking cigarettes. In other words, relatively isolable as these physiological needs are, they are not completely so.

Undoubtedly these physiological needs are the most prepotent of all needs. What this means specifically is, that in the human being who is missing everything in life in an extreme fashion, it is most likely that the major motivation would be the physiological needs rather than any

others. A person who is lacking food, safety, love, and esteem would most probably hunger for food more strongly than for anything else.

If all the needs are unsatisfied, and the organism is then dominated by the physiological needs, all other needs may become simply non-existent or be pushed into the background. It is then fair to characterize the whole organism by saying simply that it is hungry, for consciousness is almost completely preempted by hunger. All capacities are put into the service of hunger-satisfaction, and the organization of these capacities is almost entirely determined by the one purpose of satisfying hunger. The receptors and effectors, the intelligence, memory, habits, all may now be defined simply as hunger-gratifying tools. Capacities that are not useful for this purpose lie dormant, or are pushed into the background. The urge to write poetry, the desire to acquire an automobile, the interest in American history, the desire for a new pair of shoes are, in the extreme case, forgotten or become of secondary importance. For the man who is extremely and dangerously hungry, no other interests exist but food. He dreams food, he remembers food, he thinks about food, he emotes only about food, he perceives only food and he wants only food. The more subtle determinants that ordinarily fuse with the physiological drives in organizing even feeding, drinking or sexual behavior, may now be so completely overwhelmed as to allow us to speak at this time (but only at this time) of pure hunger drive and behavior, with the one unqualified aim of relief.

Another peculiar characteristic of the human organism when it is dominated by a certain need is that the whole philosophy of the future tends also to change. For our chronically and extremely hungry man, Utopia can be defined very simply as a place where there is plenty of food. He tends to think that, if only he is guaranteed food for the rest of his life, he will be perfectly happy and will never want anything more. Life itself tends to be defined in terms of eating. Anything else will be defined as unimportant. Freedom, love, community feeling, respect, philosophy, may all be waved aside as fripperies which are useless since they fail to fill the stomach. Such a man may fairly be said to live by bread alone.

It cannot possibly be denied that such things are true but their *generality* can be denied. Emergency conditions are, almost by definition, rare in the normally functioning peaceful society. That this truism can be forgotten is due mainly to two reasons. First, rats have few motivations other than physiological ones, and since so much of the research upon motivation has been made with these animals, it is easy to carry the rat-picture over to the human being. Secondly, it is too often not realized that culture itself is an adaptive tool, one of whose main functions is to make the physiological emergencies come less and less often. In most of the known societies, chronic extreme hunger of the emergency type is rare, rather than common. In any case, this is still true in the United States. The average American citizen is experiencing appetite rather than hunger when he says "I am hungry." He is apt to experience sheer life-and-death hunger only by accident and then only a few times through his entire life.

Obviously a good way to obscure the 'higher' motivations, and to get a lopsided view of human capacities and human nature, is to make the organism extremely and chronically hungry or thirsty. Anyone who attempts to make an emergency picture into a typical one, and who will measure all of man's goals and desires by his behavior during extreme physiological deprivation is certainly being blind to many things. It is quite true that man lives by bread alone— when there is no bread. But what happens to man's desires when there *is* plenty of bread and when his belly is chronically filled?

At once other (and 'higher') needs emerge and these, rather than physiological hungers, dominate the organism. And when these in turn are satisfied, again new (and still 'higher') needs emerge and so on. This is what we mean by saying that the basic human needs are organized into a hierarchy of relative prepotency.

One main implication of this phrasing is that gratification becomes as important a concept as deprivation in motivation theory, for it releases the organism from the domination of a relatively more physiological need, permitting thereby the emergence of other more social goals. The physiological needs, along with their partial goals, when chronically gratified cease to exist as active determinants or organizers of behavior. They now exist only in a potential fashion in the sense that they may emerge again to dominate the organism if they are thwarted. But a want that is satisfied is no longer a want. The organism is dominated and its behavior organized only by unsatisfied needs. If hunger is satisfied, it becomes unimportant in the current dynamics of the individual.

This statement is somewhat qualified by a hypothesis to be discussed more fully later, namely that it is precisely those individuals in whom a certain need has always been satisfied who are best equipped to tolerate deprivation of that need in the future, and that furthermore, those who have been deprived in the past will react differently to current satisfactions than the one who has never been deprived.

The safety needs.--If the physiological needs are relatively well gratified, there then emerges a new set of needs, which we may categorize roughly as the safety needs. All that has been said of the physiological needs is equally true, although in lesser degree, of these desires. The organism may equally well be wholly dominated by them. They may serve as the almost exclusive organizers of behavior, recruiting all the capacities of the organism in their service, and we may then fairly describe the whole organism as a safety-seeking mechanism. Again we may say of the receptors, the effectors, of the intellect and the other capacities that they are primarily safety-seeking tools. Again, as in the hungry man, we find that the dominating goal is a strong determinant not only of his current world-outlook and philosophy but also of his philosophy of the future. Practically everything looks less important than safety, (even sometimes the physiological needs which being satisfied, are now underestimated). A man, in

this state, if it is extreme enough and chronic enough, may be characterized as living almost for safety alone.

Although in this paper we are interested primarily in the needs of the adult, we can approach an understanding of his safety needs perhaps more efficiently by observation of infants and children, in whom these needs are much more simple and obvious. One reason for the clearer appearance of the threat or danger reaction in infants, is that they do not inhibit this reaction at all, whereas adults in our society have been taught to inhibit it at all costs. Thus even when adults do feel their safety to be threatened we may not be able to see this on the surface. Infants will react in a total fashion and as if they were endangered, if they are disturbed or dropped suddenly, startled by loud noises, flashing light, or other unusual sensory stimulation, by rough handling, by general loss of support in the mother's arms, or by inadequate support.[1]

In infants we can also see a much more direct reaction to bodily illnesses of various kinds. Sometimes these illnesses seem to be immediately and *per se* threatening and seem to make the child feel unsafe. For instance, vomiting, colic or other sharp pains seem to make the child look at the whole world in a different way. At such a moment of pain, it may be postulated that, for the child, the appearance of the whole world suddenly changes from sunniness to darkness, so to speak, and becomes a place in which anything at all might happen, in which previously stable things have suddenly become unstable. Thus a child who because of some bad food is taken ill may, for a day or two, develop fear, nightmares, and a need for protection and reassurance never seen in him before his illness.

Another indication of the child's need for safety is his preference for some kind of undisrupted routine or rhythm. He seems to want a predictable, orderly world. For instance, injustice, unfairness, or inconsistency in the parents seems to make a child feel anxious and unsafe. This attitude may be not so much because of the injustice *per se* or any particular pains involved, but rather because this treatment threatens to make the world look unreliable, or unsafe, or unpredictable. Young children seem to thrive better under a system which has at least a skeletal outline of rigidity, in which there is a schedule of a kind, some sort of routine, something that can be counted upon, not only for the present but also far into the future. Perhaps one could express this more accurately by saying that the child needs an organized world rather than an unorganized or unstructured one.

The central role of the parents and the normal family setup are indisputable. Quarreling, physical assault, separation, divorce or death within the family may be particularly terrifying. Also parental outbursts of rage or threats of punishment directed to the child, calling him names, speaking to him harshly, shaking him, handling him roughly, or actual physical punishment sometimes elicit such total panic and terror in the child that we must assume more is involved than the physical pain alone. While it is true that in some children this terror may represent also a fear of loss of parental love, it can also occur in completely rejected children,

who seem to cling to the hating parents more for sheer safety and protection than because of hope of love.

Confronting the average child with new, unfamiliar, strange, unmanageable stimuli or situations will too frequently elicit the danger or terror reaction, as for example, getting lost or even being separated from the parents for a short time, being confronted with new faces, new situations or new tasks, the sight of strange, unfamiliar or uncontrollable objects, illness or death. Particularly at such times, the child's frantic clinging to his parents is eloquent testimony to their role as protectors (quite apart from their roles as food-givers and love-givers).

From these and similar observations, we may generalize and say that the average child in our society generally prefers a safe, orderly, predictable, organized world, which he can count on, and in which unexpected, unmanageable or other dangerous things do not happen, and in which, in any case, he has all-powerful parents who protect and shield him from harm.

That these reactions may so easily be observed in children is in a way a proof of the fact that children in our society, feel too unsafe (or, in a word, are badly brought up). Children who are reared in an unthreatening, loving family do *not* ordinarily react as we have described above (17). In such children the danger reactions are apt to come mostly to objects or situations that adults too would consider dangerous.[2]

The healthy, normal, fortunate adult in our culture is largely satisfied in his safety needs. The peaceful, smoothly running, 'good' society ordinarily makes its members feel safe enough from wild animals, extremes of temperature, criminals, assault and murder, tyranny, etc. Therefore, in a very real sense, he no longer has any safety needs as active motivators. Just as a sated man no longer feels hungry, a safe man no longer feels endangered. If we wish to see these needs directly and clearly we must turn to neurotic or near-neurotic individuals, and to the economic and social underdogs. In between these extremes, we can perceive the expressions of safety needs only in such phenomena as, for instance, the common preference for a job with tenure and protection, the desire for a savings account, and for insurance of various kinds (medical, dental, unemployment, disability, old age).

Other broader aspects of the attempt to seek safety and stability in the world are seen in the very common preference for familiar rather than unfamiliar things, or for the known rather than the unknown. The tendency to have some religion or world-philosophy that organizes the universe and the men in it into some sort of satisfactorily coherent, meaningful whole is also in part motivated by safety-seeking. Here too we may list science and philosophy in general as partially motivated by the safety needs (we shall see later that there are also other motivations to scientific, philosophical or religious endeavor).

Otherwise the need for safety is seen as an active and dominant mobilizer of the organism's resources only in emergencies, *e.g.*, war, disease, natural catastrophes, crime waves, societal disorganization, neurosis, brain injury, chronically bad situation.

Some neurotic adults in our society are, in many ways, like the unsafe child in their desire for safety, although in the former it takes on a somewhat special appearance. Their reaction is often to unknown, psychological dangers in a world that is perceived to be hostile, overwhelming and threatening. Such a person behaves as if a great catastrophe were almost always impending, *i.e.*, he is usually responding as if to an emergency. His safety needs often find specific expression in a search for a protector, or a stronger person on whom he may depend, or perhaps, a Fuehrer.

The neurotic individual may be described in a slightly different way with some usefulness as a grown-up person who retains his childish attitudes toward the world. That is to say, a neurotic adult may be said to behave 'as if he were actually afraid of a spanking, or of his mother's disapproval, or of being abandoned by his parents, or having his food taken away from him. It is as if his childish attitudes of fear and threat reaction to a dangerous world had gone underground, and untouched by the growing up and learning processes, were now ready to be called out by any stimulus that would make a child feel endangered and threatened.[3]

The neurosis in which the search for safety takes its clearest form is in the compulsive-obsessive neurosis. Compulsive- obsessives try frantically to order and stabilize the world so that no unmanageable, unexpected or unfamiliar dangers will ever appear (14). They hedge themselves about with all sorts of ceremonials, rules and formulas so that every possible contingency may be provided for and so that no new contingencies may appear. They are much like the brain injured cases, described by Goldstein (6), who manage to maintain their equilibrium by avoiding everything unfamiliar and strange and by ordering their restricted world in such a neat, disciplined, orderly fashion that everything in the world can be counted upon. They try to arrange the world so that anything unexpected (dangers) cannot possibly occur. If, through no fault of their own, something unexpected does occur, they go into a panic reaction as if this unexpected occurrence constituted a grave danger. What we can see only as a none-too-strong preference in the healthy person, *e.g.*, preference for the familiar, becomes a life-and-death necessity in abnormal cases.

The love needs.--If both the physiological and the safety needs are fairly well gratified, then there will emerge the love and affection and belongingness needs, and the whole cycle already described will repeat itself with this new center. Now the person will feel keenly, as never before, the absence of friends, or a sweetheart, or a wife, or children. He will hunger for affectionate relations with people in general, namely, for a place in his group, and he will strive with great intensity to achieve this goal. He will want to attain such a place more than anything else in the world and may even forget that once, when he was hungry, he sneered at love.

In our society the thwarting of these needs is the most commonly found core in cases of maladjustment and more severe psychopathology. Love and affection, as well as their possible expression in sexuality, are generally looked upon with ambivalence and are customarily hedged about with many restrictions and inhibitions. Practically all theorists of psychopathology have stressed thwarting of the love needs as basic in the picture of maladjustment. Many clinical studies have therefore been made of this need and we know more about it perhaps than any of the other needs except the physiological ones (14).

One thing that must be stressed at this point is that love is not synonymous with sex. Sex may be studied as a purely physiological need. Ordinarily sexual behavior is multi-determined, that is to say, determined not only by sexual but also by other needs, chief among which are the love and affection needs. Also not to be overlooked is the fact that the love needs involve both giving and receiving love.[4]

The esteem needs.--All people in our society (with a few pathological exceptions) have a need or desire for a stable, firmly based, (usually) high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others. By firmly based self-esteem, we mean that which is soundly based upon real capacity, achievement and respect from others. These needs may be classified into two subsidiary sets. These are, first, the desire for strength, for achievement, for adequacy, for confidence in the face of the world, and for independence and freedom.[5] Secondly, we have what we may call the desire for reputation or prestige (defining it as respect or esteem from other people), recognition, attention, importance or appreciation.[6] These needs have been relatively stressed by Alfred Adler and his followers, and have been relatively neglected by Freud and the psychoanalysts. More and more today however there is appearing widespread appreciation of their central importance.

Satisfaction of the self-esteem need leads to feelings of self-confidence, worth, strength, capability and adequacy of being useful and necessary in the world. But thwarting of these needs produces feelings of inferiority, of weakness and of helplessness. These feelings in turn give rise to either basic discouragement or else compensatory or neurotic trends. An appreciation of the necessity of basic self-confidence and an understanding of how helpless people are without it, can be easily gained from a study of severe traumatic neurosis (8).

The need for self-actualization.--Even if all these needs are satisfied, we may still often (if not always) expect that a new discontent and restlessness will soon develop, unless the individual is doing what he is fitted for. A musician must make music, an artist must paint, a poet must write, if he is to be ultimately happy. What a man *can* be, he *must* be. This need we may call self-actualization.

This term, first coined by Kurt Goldstein, is being used in this paper in a much more specific and limited fashion. It refers to the desire for self-fulfillment, namely, to the tendency for him to

become actualized in what he is potentially. This tendency might be phrased as the desire to become more and more what one is, to become everything that one is capable of becoming.

The specific form that these needs will take will of course vary greatly from person to person. In one individual it may take the form of the desire to be an ideal mother, in another it may be expressed athletically, and in still another it may be expressed in painting pictures or in inventions. It is not necessarily a creative urge although in people who have any capacities for creation it will take this form.

The clear emergence of these needs rests upon prior satisfaction of the physiological, safety, love and esteem needs. We shall call people who are satisfied in these needs, basically satisfied people, and it is from these that we may expect the fullest (and healthiest) creativeness.[8] Since, in our society, basically satisfied people are the exception, we do not know much about self-actualization, either experimentally or clinically. It remains a challenging problem for research.

The preconditions for the basic need satisfactions.--satisfactions.—There are certain conditions which are immediate prerequisites for the basic need satisfactions. Danger to these is reacted to almost as if it were a direct danger to the basic needs themselves. Such conditions as freedom to speak, freedom to do what one wishes so long as no harm is done to others, freedom to express one's self, freedom to investigate and seek for information, freedom to defend one's self, justice, fairness, honesty, orderliness in the group are examples of such preconditions for basic need satisfactions. Thwarting in these freedoms will be reacted to with a threat or emergency response. These conditions are not ends in themselves but they are almost so since they are so closely related to the basic needs, which are apparently the only ends in themselves. These conditions are defended because without them the basic satisfactions are quite impossible, or at least, very severely endangered.

If we remember that the cognitive capacities (perceptual, intellectual, learning) are a set of adjustive tools, which have, among other functions, that of satisfaction of our basic needs, then it is clear that any danger to them, any deprivation or blocking of their free use, must also be indirectly threatening to the basic needs themselves. Such a statement is a partial solution of the general problems of curiosity, the search for knowledge, truth and wisdom, and the ever-persistent urge to solve the cosmic mysteries.

We must therefore introduce another hypothesis and speak of degrees of closeness to the basic needs, for we have already pointed out that *any*conscious desires (partial goals) are more or less important as they are more or less close to the basic needs. The same statement may be made for various behavior acts. An act is psychologically important if it contributes directly to satisfaction of basic needs. The less directly it so contributes, or the weaker this contribution is, the less important this act must be conceived to be from the point of view of dynamic psychology. A similar statement may be made for the various defense or coping mechanisms.

Some are very directly related to the protection or attainment of the basic needs, others are only weakly and distantly related. Indeed if we wished, we could speak of more basic and less basic defense mechanisms, and then affirm that danger to, the more basic defenses is more threatening than danger to less basic defenses (always remembering that this is so only because of their relationship to the basic needs).

The desires to know and to understand.--So far, we have mentioned the cognitive needs only in passing. Acquiring knowledge and systematizing the universe have been considered as, in part, techniques for the achievement of basic safety in the world, or, for the intelligent man, expressions of self-actualization. Also freedom of inquiry and expression have been discussed as preconditions of satisfactions of the basic needs. True though these formulations may be, they do not constitute definitive answers to the question as to the motivation role of curiosity, learning, philosophizing, experimenting, etc. They are, at best, no more than partial answers.

This question is especially difficult because we know so little about the facts. Curiosity, exploration, desire for the facts, desire to know may certainly be observed easily enough. The fact that they often are pursued even at great cost to the individual's safety is an earnest of the partial character of our previous discussion. In addition, the writer must admit that, though he has sufficient clinical evidence to postulate the desire to know as a very strong drive in intelligent people, no data are available for unintelligent people. It may then be largely a function of relatively high intelligence. Rather tentatively, then, and largely in the hope of stimulating discussion and research, we shall postulate a basic desire to know, to be aware of reality, to get the facts, to satisfy curiosity, or as Wertheimer phrases it, to see rather than to be blind.

This postulation, however, is not enough. Even after we know, we are impelled to know more and more minutely and microscopically on the one hand, and on the other, more and more extensively in the direction of a world philosophy, religion, etc. The facts that we acquire, if they are isolated or atomistic, inevitably get theorized about, and either analyzed or organized or both. This process has been phrased by some as the search for 'meaning.' We shall then postulate a desire to understand, to systematize, to organize, to analyze, to look for relations and meanings.

Once these desires are accepted for discussion, we see that they too form themselves into a small hierarchy in which the desire to know is prepotent over the desire to understand. All the characteristics of a hierarchy of prepotency that we have described above, seem to hold for this one as well.

We must guard ourselves against the too easy tendency to separate these desires from the basic needs we .have discussed above, *i.e.*, to make a sharp dichotomy between 'cognitive' and 'conative' needs. The desire to know and to understand are themselves conative, *i.e.*, have a

striving character, and are as much personality needs as the 'basic needs' we have already discussed (19).

III. FURTHER CHARACTERISTICS OF THE BASIC NEEDS

The degree of fixity of the hierarchy of basic needs.--We have spoken so far as if this hierarchy were a fixed order but actually it is not nearly as rigid as we may have implied. It is true that most of the people with whom we have worked have seemed to have these basic needs in about the order that has been indicated. However, there have been a number of exceptions.

(1) There are some people in whom, for instance, self-esteem seems to be more important than love. This most common reversal in the hierarchy is usually due to the development of the notion that the person who is most likely to be loved is a strong or powerful person, one who inspires respect or fear, and who is self confident or aggressive. Therefore such people who lack love and seek it, may try hard to put on a front of aggressive, confident behavior. But essentially they seek high self-esteem and its behavior expressions more as a means-to-an-end than for its own sake; they seek self-assertion for the sake of love rather than for self-esteem itself.

(2) There are other, apparently innately creative people in whom the drive to creativeness seems to be more important than any other counter-determinant. Their creativeness might appear not as self-actualization released by basic satisfaction, but in spite of lack of basic satisfaction.

(3) In certain people the level of aspiration may be permanently deadened or lowered. That is to say, the less prepotent goals may simply be lost, and may disappear forever, so that the person who has experienced life at a very low level, i.e., chronic unemployment, may continue to be satisfied for the rest of his life if only he can get enough food.

(4) The so-called 'psychopathic personality' is another example of permanent loss of the love needs. These are people who, according to the best data available (9), have been starved for love in the earliest months of their lives and have simply lost forever the desire and the ability to give and to receive affection (as animals lose sucking or pecking reflexes that are not exercised soon enough after birth).

(5) Another cause of reversal of the hierarchy is that when a need has been satisfied for a long time, this need may be under-evaluated. People who have never experienced chronic hunger are apt to underestimate its effects and to look upon food as a rather unimportant thing. If they are dominated by a higher need, this higher need will seem to be the most important of all. It then becomes possible, and indeed does actually happen, that they may, for the sake of this higher need, put themselves into the position of being deprived in a more basic need. We may

expect that after a long-time deprivation of the more basic need there will be a tendency to reevaluate both needs so that the more prepotent need will actually become consciously prepotent for the individual who may have given it up very lightly. Thus, a man who has given up his job rather than lose his self-respect, and who then starves for six months or so, may be willing to take his job back even at the price of losing his self-respect.

(6) Another partial explanation of *apparent* reversals is seen in the fact that we have been talking about the hierarchy of prepotency in terms of consciously felt wants or desires rather than of behavior. Looking at behavior itself may give us the wrong impression. What we have claimed is that the person will *want* the more basic of two needs when deprived in both. There is no necessary implication here that he will act upon his desires. Let us say again that there are many determinants of behavior other than the needs and desires.

(7) Perhaps more important than all these exceptions are the ones that involve ideals, high social standards, high values and the like. With such values people become martyrs; they will give up everything for the sake of a particular ideal, or value. These people may be understood, at least in part, by reference to one basic concept (or hypothesis) which may be called 'increased frustration-tolerance through early gratification.' People who have been satisfied in their basic needs throughout their lives, particularly in their earlier years, seem to develop exceptional power to withstand present or future thwarting of these needs simply because they have strong, healthy character structure as a result of basic satisfaction. They are the 'strong' people who can easily weather disagreement or opposition, who can swim against the stream of public opinion and who can stand up for the truth at great personal cost. It is just the ones who have loved and been well loved, and who have had many deep friendships who can hold out against hatred, rejection or persecution.

I say all this in spite of the fact that there is a certain amount of sheer habituation which is also involved in any full discussion of frustration tolerance. For instance, it is likely that those persons who have been accustomed to relative starvation for a long time, are partially enabled thereby to withstand food deprivation. What sort of balance must be made between these two tendencies, of habituation on the one hand, and of past satisfaction breeding present frustration tolerance on the other hand, remains to be worked out by further research. Meanwhile we may assume that they are both operative, side by side, since they do not contradict each other. In respect to this phenomenon of increased frustration tolerance, it seems probable that the most important gratifications come in the first two years of life. That is to say, people who have been made secure and strong in the earliest years, tend to remain secure and strong thereafter in the face of whatever threatens.

Degrees of relative satisfaction.--So far, our theoretical discussion may have given the impression that these five sets of needs are somehow in a step-wise, all-or-none relationships to each other. We have spoken in such terms as the following: "If one need is satisfied, then

another emerges." This statement might give the false impression that a need must be satisfied 100 per cent before the next need emerges. In actual fact, most members of our society who are normal, are partially satisfied in all their basic needs and partially unsatisfied in all their basic needs at the same time. A more realistic description of the hierarchy would be in terms of decreasing percentages of satisfaction as we go up the hierarchy of prepotency. For instance, if I may assign arbitrary figures for the sake of illustration, it is as if the average citizen is satisfied perhaps 85 per cent in his physiological needs, 70 per cent in his safety needs, 50 per cent in his love needs, 40 per cent in his self-esteem needs, and 10 per cent in his self-actualization needs.

As for the concept of emergence of a new need after satisfaction of the prepotent need, this emergence is not a sudden, saltatory phenomenon but rather a gradual emergence by slow degrees from nothingness. For instance, if prepotent need A is satisfied only 10 per cent then need B may not be visible at all. However, as this need A becomes satisfied 25 per cent, need B may emerge 5 per cent, as need A becomes satisfied 75 per cent need B may emerge 90 per cent, and so on.

Unconscious character of needs.--This classification of basic needs makes some attempt to take account of the relative unity behind the superficial differences in specific desires from one culture to another. Certainly in any particular culture an individual's conscious motivational content will usually be extremely different from the conscious motivational content of an individual in another society. However, it is the common experience of anthropologists that people, even in different societies, are much more alike than we would think from our first contact with them, and that as we know them better we seem to find more and more of this commonness. We then recognize the most startling differences to be superficial rather than basic, *e.g.*, differences in style of hairdress, clothes, tastes in food, etc. Our classification of basic needs is in part an attempt to account for this unity behind the apparent diversity from culture to culture. No claim is made that it is ultimate or universal for all cultures. The claim is made only that it is relatively *more* ultimate, more universal, more basic, than the superficial conscious desires from culture to culture, and makes a somewhat closer approach to common-human characteristics. Basic needs are more common-human than superficial desires or behaviors.

Multiple motivations of behavior.--These needs must be understood *not* to be exclusive or single determiners of certain kinds of behavior. An example may be found in any behavior that seems to be physiologically motivated, such as eating, or sexual play or the like. The clinical psychologists have long since found that any behavior may be a channel through which flow various determinants. Or to say it in another way, most behavior is multi-motivated. Within the sphere of motivational determinants any behavior tends to be determined by several or *all* of the basic needs simultaneously rather than by only one of them. The latter would be more an exception than the former. Eating may be partially for the sake of filling the stomach, and

partially for the sake of comfort and amelioration of other needs. One may make love not only for pure sexual release, but also to convince one's self of one's masculinity, or to make a conquest, to feel powerful, or to win more basic affection. As an illustration, I may point out that it would be possible (theoretically if not practically) to analyze a single act of an individual and see in it the expression of his physiological needs, his safety needs, his love needs, his esteem needs and self-actualization. This contrasts sharply with the more naive brand of trait psychology in which one trait or one motive accounts for a certain kind of act, *i.e.*, an aggressive act is traced solely to a trait of aggressiveness.

<*Multiple determinants of behavior*.--Not all behavior is determined by the basic needs. We might even say that not all behavior is motivated. There are many determinants of behavior other than motives.[9] For instance, one other important class of determinants is the so-called 'field' determinants. Theoretically, at least, behavior may be determined completely by the field, or even by specific isolated external stimuli, as in association of ideas, or certain conditioned reflexes. If in response to the stimulus word 'table,' I immediately perceive a memory image of a table, this response certainly has nothing to do with my basic needs.

Secondly, we may call attention again to the concept of 'degree of closeness to the basic needs' or 'degree of motivation.' Some behavior is highly motivated, other behavior is only weakly motivated. Some is not motivated at all (but all behavior is determined).

Another important point[10] is that there is a basic difference between expressive behavior and coping behavior (functional striving, purposive goal seeking). An expressive behavior does not try to do anything; it is simply a reflection of the personality. A stupid man behaves stupidly, not because he wants to, or tries to, or is motivated to, but simply because he is what he is. The same is true when I speak in a bass voice rather than tenor or soprano. The random movements of a healthy child, the smile on the face of a happy man even when he is alone, the springiness of the healthy man's walk, and the erectness of his carriage are other examples of expressive, non-functional behavior. Also the *style* in which a man carries out almost all his behavior, motivated as well as unmotivated, is often expressive.

We may then ask, is *all* behavior expressive or reflective of the character structure? The answer is 'No.' Rote, habitual, automatized, or conventional behavior, may or may not be expressive. The same is true for most 'stimulus-bound' behaviors.

It is finally necessary to stress that expressiveness of behavior, and goal-directedness of behavior are not mutually exclusive categories. Average behavior is usually both.

Goals as centering principle in motivation theory.--It will be observed that the basic principle in our classification has been neither the instigation nor the motivated behavior but rather the

functions, effects, purposes, or goals of the behavior. It has been proven sufficiently by various people that this is the most suitable point for centering in any motivation theory.[11]

Animal- and human-centering.--This theory starts with the human being rather than any lower and presumably 'simpler' animal. Too many of the findings that have been made in animals have been proven to be true for animals but not for the human being. There is no reason whatsoever why we should start with animals in order to study human motivation. The logic or rather illogic behind this general fallacy of 'pseudo-simplicity' has been exposed often enough by philosophers and logicians as well as by scientists in each of the various fields. It is no more necessary to study animals before one can study man than it is to study mathematics before one can study geology or psychology or biology.

We may also reject the old, naive, behaviorism which assumed that it was somehow necessary, or at least more 'scientific' to judge human beings by animal standards. One consequence of this belief was that the whole notion of purpose and goal was excluded from motivational psychology simply because one could not ask a white rat about his purposes. Tolman (18) has long since proven in animal studies themselves that this exclusion was not necessary.

Motivation and the theory of psychopathogenesis.--The conscious motivational content of everyday life has, according to the foregoing, been conceived to be relatively important or unimportant accordingly as it is more or less closely related to the basic goals. A desire for an ice cream cone might actually be an indirect expression of a desire for love. If it is, then this desire for the ice cream cone becomes extremely important motivation. If however the ice cream is simply something to cool the mouth with, or a casual appetitive reaction, then the desire is relatively unimportant. Everyday conscious desires are to be regarded as symptoms, as surface indicators of more basic needs. If we were ,to take these superficial desires at their face value we would find ourselves in a state of complete confusion which could never be resolved, since we would be dealing seriously with symptoms rather than with what lay behind the symptoms.

Thwarting of unimportant desires produces no psychopathological results; thwarting of a basically important need does produce such results. Any theory of psychopathogenesis must then be based on a sound theory of motivation. A conflict or a frustration is not necessarily pathogenic. It becomes so only when it threatens or thwarts the basic needs, or partial needs that are closely related to the basic needs (10).

The role of gratified needs.--It has been pointed out above several times that our needs usually emerge only when more prepotent needs have been gratified. Thus gratification has an important role in motivation theory. Apart from this, however, needs cease to play an active determining or organizing. role as soon as they are gratified.

What this means is that, *e.g.*, a basically satisfied person no longer has the needs for esteem, love, safety, etc. The only sense in which he might be said to have them is in the almost metaphysical sense that a sated man has hunger, or a filled bottle has emptiness. If we are interested in what *actually* motivates us, and not in what has, will, or might motivate us, then a satisfied need is not a motivator. It must be considered for all practical purposes simply not to exist, to have disappeared. This point should be emphasized because it has been either overlooked or contradicted in every theory of motivation I know.[12] The perfectly healthy, normal, fortunate man has no sex needs or hunger needs, or needs for safety, or for love, or for prestige, or self-esteem, except in stray moments of quickly passing threat. If we were to say otherwise, we should also have to aver that every man had all the pathological reflexes, *e.g.*, Babinski, etc., because if his nervous system were damaged, these would appear.

It is such considerations as these that suggest the bold postulation that a man who is thwarted in any of his basic needs may fairly be envisaged simply as a sick man. This is a fair parallel to our designation as 'sick' of the man who lacks vitamins or minerals. Who is to say that a lack of love is less important than a lack of vitamins? Since we know the pathogenic effects of love starvation, who is to say that we are invoking value-questions in an unscientific or illegitimate way, any more than the physician does who diagnoses and treats pellagra or scurvy? If I were permitted this usage, I should then say simply that a healthy man is primarily motivated by his needs to develop and actualize his fullest potentialities and capacities. If a man has any other basic needs in any active, chronic sense, then he is simply an unhealthy man. He is as surely sick as if he had suddenly developed a strong salt-hunger or calcium hunger.[13]

If this statement seems unusual or paradoxical the reader may be assured that this is only one among many such paradoxes that will appear as we revise our ways of looking at man's deeper motivations. When we ask what man wants of life, we deal with his very essence.

IV. SUMMARY

(1) There are at least five sets of goals, which we may call basic needs. These are briefly physiological, safety, love, esteem, and self-actualization. In addition, we are motivated by the desire to achieve or maintain the various conditions upon which these basic satisfactions rest and by certain more intellectual desires.

(2) These basic goals are related to each other, being arranged in a hierarchy of prepotency. This means that the most prepotent goal will monopolize consciousness and will tend of itself to organize the recruitment of the various capacities of the organism. The less prepotent needs are minimized, even forgotten or denied. But when a need is fairly well satisfied, the next prepotent ('higher') need emerges, in turn to dominate the conscious life and to serve as the center of organization of behavior, since gratified needs are not active motivators.

Thus man is a perpetually wanting animal. Ordinarily the satisfaction of these wants is not altogether mutually exclusive, but only tends to be. The average member of our society is most often partially satisfied and partially unsatisfied in all of his wants. The hierarchy principle is usually empirically observed in terms of increasing percentages of non-satisfaction as we go up the hierarchy. Reversals of the average order of the hierarchy are sometimes observed. Also it has been observed that an individual may permanently lose the higher wants in the hierarchy under special conditions. There are not only ordinarily multiple motivations for usual behavior, but in addition many determinants other than motives.

(3) Any thwarting or possibility of thwarting of these basic human goals, or danger to the defenses which protect them, or to the conditions upon which they rest, is considered to be a psychological threat. With a few exceptions, all psychopathology may be partially traced to such threats. A basically thwarted man may actually be defined as a 'sick' man, if we wish.

(4) It is such basic threats which bring about the general emergency reactions.

(5) Certain other basic problems have not been dealt with because of limitations of space. Among these are (a) the problem of values in any definitive motivation theory, (b) the relation between appetites, desires, needs and what is 'good' for the organism, (c) the etiology of the basic needs and their possible derivation in early childhood, (d) redefinition of motivational concepts, i.e., drive, desire, wish, need, goal, (e) implication of our theory for hedonistic theory, (f) the nature of the uncompleted act, of success and failure, and of aspiration-level, (g) the role of association, habit and conditioning, (h) relation to the theory of inter-personal relations, (i) implications for psychotherapy, (j) implication for theory of society, (k) the theory of selfishness, (l) the relation between needs and cultural patterns, (m) the relation between this theory and Allport's theory of functional autonomy. These as well as certain other less important questions must be considered as motivation theory attempts to become definitive.

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Personal Time Management

Edwin Stone

Introduction

There is one resource that all people do share equally – the number of hours in the day. Rich or poor, healthy or sick, educated or uneducated – the time dimension is fixed. So, the question becomes: "How will you use this precious commodity that cannot be stored or amplified?"

Time Management Principles

1) Time is a resource like food or space or energy that can be used or wasted. The terms "use" and "waste" only have meaning in the context of a person's goals. If time is spent moving toward a goal, one can consider it more or less "well used". If time is spent and no goals are achieved (or some have become more distant) then one can consider that time has been more or less wasted. Thus, the same activity could be a waste of time for one person and an efficient use of time for another depending on their personal goals. Any coherent time management system must therefore begin with a set of goals. Goals can and should evolve over time; but, one should always have them and use them daily to make important decisions. "If you don't know where you are going, any road will take you there." And the corollary is, in a competitive world, a person with a specific tangible plan will succeed way more often than a person without one.

2) Balance is important. We all operate in multiple spheres: work, home, community, etc. One's goals in these different spheres are superficially at odds with one another; but, with thought and effort these goals can usually be aligned in a synergistic way. Spending time with one's family and friends can easily make a person so much more effective at work that he or she will outperform someone who spends much less time with their family and friends. Working hard and achieving professional and financial success can also contribute to a happier and more secure family environment.

3) Flexibility is important (i.e., the ability to change from a planned task to an unplanned opportunity) but one must not be so flexible that one blows from task to task like a leaf in the wind. In general, one should strive for 30-45 minute blocks of effort, should "plan tomorrow today" (see item 7 below), and should stick to the plan at least 80% of the time. If one is having trouble sticking to the plan 80% of the time, then someone else is in control: and, moreover, that person (or those people) does (do) not have a coherent plan for your time (or at least one that you understand or know about).

4) Procrastination is bad. At best it moves things unnecessarily from zone 2 to zone 1 (see "the cube" below) – at worst, it prevents you from succeeding because you run out of time to accomplish something important because something unexpected occurred. One should expect the unexpected (be prepared).

5) Spend as much of your time as possible in Zone 2a. This is a variant of a principle espoused by Stephen Covey in the Seven Habits of Highly Effective People. It reminds us that "urgency" can masquerade as "importance" and that other people's missions, cloaked in urgency, can

masquerade as your mission. Finally, doing things in an urgent fashion is stressful, often expensive, and does not always result in doing one's best work.
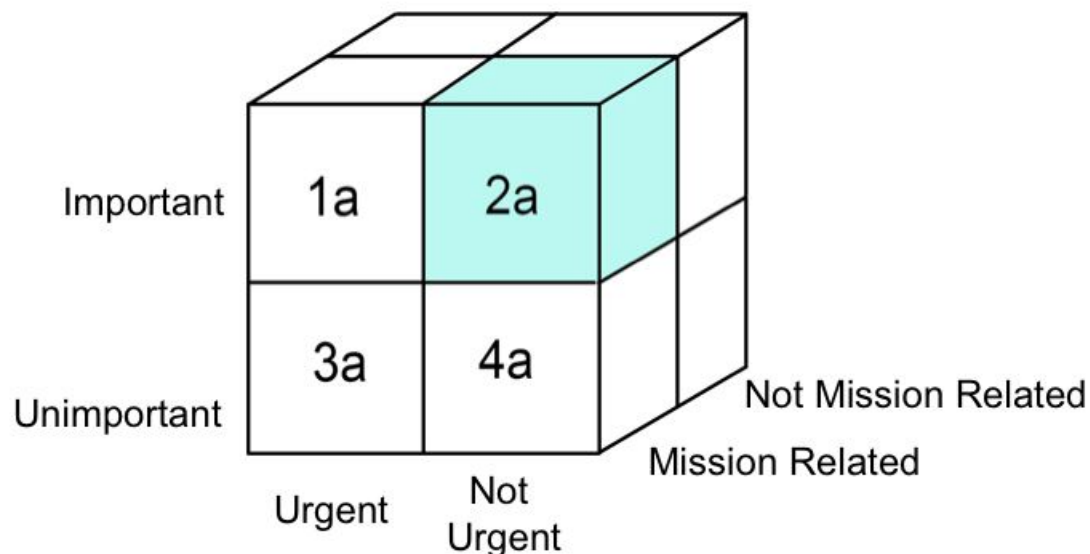
6) Completion of tasks is important. Simply progressing on projects without completing them is not sufficient. Many projects are vulnerable to damage or loss while uncompleted. It is like buying a bunch of expensive lumber and storing it uncovered in the back yard while waiting for sufficient time to build a piece of furniture. Buy the wood, make the furniture, get it done, get it inside. Don't start it until you are in a reasonable position to finish it. Multi-tasking is OK, and is necessary for good efficiency. However, hyper-multi-tasking (which can be recognized by a completion to effort ratio that is very low) is inefficient and puts many projects at risk of failure and loss.

7) Plan tomorrow today. Make a list of no more than 6 items that you intend to do tomorrow. Do them. If you are not completing many of these tasks, then you need to evaluate why and take steps to gain more control over your time.

8) Delegate all tasks that can be done by someone as well or better than you can do it yourself. Be sure to delegate sufficient authority to the people to whom the tasks are delegated to allow the tasks to be completed without your involvement. Spend your time doing things that you are uniquely qualified to do.

9) Control your calendar. Travel no more than once per month and only for things that directly contribute to your mission. Do not accept many invitations over a year in advance because this will seriously constrain your ability to control your calendar in the future. Plan vacations and other family time more aggressively than work related items for two reasons. Failure to do so will allow work to overwhelm your calendar by mass action. Second, your years with your children are fleeting. As my wife Mary pointed out to me some years ago. "the Dean won't be coming home for Christmas 20 years from now" (and she was right!).

10) Sharpen the saw. Again, an idea from Stephen Covey. Don't just work harder. Spend time thinking about how to work differently. Take an executive management course (or read some of the books in the Stone Rounds Professional Success Bibliography) and use it (them) to thoughtfully evaluate many areas of your life looking for ways to realign your priorities to make better progress toward your goals. A somewhat mundane variant of this principle is "clean up your desk/office/workshop". It is easier to work at a desk that is not cluttered with unfinished junk. Get rid of it. Delegate it. Throw it away. Sort it. Store it. Whatever. But get it off your desk (and out of your office) and keep it off of your desk and out of your office. It may require up to 10% of your time to keep things cleaned up but you will be more than 10% more efficient and will enjoy your work more.

11) Set aside some specific time each week to spend with each family member in a meaningful way. For example, walk with your spouse for one hour each morning. Spend at least thirty minutes each week one on one with each of your children. Set aside additional time to spend with the family as a group.

12) Handyman days. Set aside one or two days per month – on the calendar -- to be spent doing projects for and with family members. Prioritize these projects with family input and then do them. This allows one to gain control over these tasks and reveals to family members the amount of this stuff that you do. Without such a strategy, it may appear to family members that you are "too busy to help them" when in fact you are spending much more time doing things for them than you are spending on yourself.

13) Home office days. Same as above for paying bills, preparing taxes, etc.

14) Know the value of your time. Divide your annual salary by 2000. That is how much you make per hour. Do not spend an hour doing something in an effort to "save money" unless you will 1) save more than you make per hour or 2) enjoy the hour you spend doing this task. Thus you might spend 10 hours doing something with a school or community group because you will enjoy it yourself and your presence at the event will be of far greater value to your family members who are also participating than the monetary value of your time. In contrast, if none of your family members is involved and the leader of the community effort is yelling at you as you do manual labor that you are not enjoying at all, you would do better to contribute some money to the effort and spend those irreplaceable hours doing something that you enjoy doing or that contributes to your personal mission.

15) Sleep seven hours per night, at nearly the same time every night. This will allow you to fall asleep more easily and wake up more easily.

Deming Summary

(from: *Out of the Crisis*, W. Edwards Deming 1982)

14 Points for Management

1. Create constancy of purpose toward improvement of product and service, with the aim to become competitive, to stay in business and to provide jobs.

2. Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.

3. Cease dependence on inspection to achieve quality. Eliminate the need for massive inspection by building quality into the product in the first place.

4. End the practice of awarding business on the basis of a price tag. Instead, minimize total cost. Move towards a single supplier for any one item, on a long-term relationship of loyalty and trust.

5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.

6. Institute training on the job.

7. Institute leadership. The aim of supervision should be to help people and machines and gadgets do a better job. Supervision of management is in need of overhaul, as well as supervision of production workers.

8. Drive out fear, so that everyone may work effectively for the company.

9. Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and usage that may be encountered with the product or service.

10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of the work force. Eliminate work standards (quotas) on the factory floor. Substitute with leadership. Eliminate management by objective. Eliminate management by numbers and numerical goals. Instead substitute leadership.

11. Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.

12. Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means abolishment of the annual or merit rating and of management by

objectives.

13. Institute a vigorous program of education and self-improvement.

14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

Seven Deadly Diseases

1. Lack of constancy of purpose

2. Emphasis on short-term profits

3. Evaluation by performance, merit rating, or annual review of performance

4. Mobility of management

5. Running a company on visible figures alone

6. Excessive medical costs

7. Excessive costs of warranty, fueled by lawyers who work for contingency fees

Eight Obstacles

1. Neglecting long-range planning

2. Relying on technology to solve problems

3. Seeking examples to follow rather than developing solutions

4. Excuses, such as "our problems are different"

5. The mistaken belief that management skills can be taught in classes

6. Reliance on quality control departments rather than management, supervisors, managers of purchasing, and production workers

7. Placing blame on workforces who are only responsible for 15% of mistakes where the system designed by management is responsible for 85% of the unintended consequences

8. Relying on quality inspection rather than improving product quality

Introduction to Training

Milton D. Stone, Jr.
Canada, 1969

Well good afternoon, gentlemen.

We're going to talk this afternoon about training, but before we do that I'd like to review with you a little bit about the first lesson that you had which was on recruiting.

I have just completed going around and visiting all of the dealers in the Hamilton* group and we've been through there for about a month and I'm finding some in pretty good shape and I'm finding some with some problems.

And most of these problems – you know we started out, we sold you this program on the basis that it would work if we get in there now and do certain things, and of course a lot of us we've evaluated some of our people and said "Well when we get on down the road we're probably going to have to make a change or two," and some of us in our group have done that and some of us haven't.

We can get a permanent solution to our troubles through people, that's the only way you can get a permanent solution to anything. You can correct the errors and faults of a great majority of these people but there's one or two of 'em that there's just nothing anybody can do with and we need to recognize this.

Anyway, give you a little example: John Holland Motors in Burlington*. I spent Monday there. I think he signed up for ten men, that's all he had at this particular time. Before the program was over, along about lesson three, we lost two of 'em. Two of 'em, when they found out about the GO system started working in another dealership somewhere where they don't have to do the GO system.

And this is fine. These men are undoubtedly happy where they are, these men are undoubtedly doing a pretty good job where they are, and I'm certain that Mr. Holland is better off. Now he's hired as a result of our recruiting thing that we gave you back in the recruiting lesson, he's hired some new people, I think about five that have been trained now to the point of being turned loose.

It was very interesting to me, I was in the sales meeting Monday morning and one of the men in his first month of production -- now this is a new man a young fella I guess about 27 or 28 years old, his first month pumped out twenty units. Now I contend that that was a good swap. You swapped that man for somebody that was giving you some trouble. And the other man now is happier where he is. See?

They've got a contest going on down there that I'll talk to you about when we get to motivation and it's a gross contest trying to get the gross up you know putting the attitude on the gross not to lose any volume but to gain -- to build some gross in our deals a little bit.

There was nine gross deals up there on this contest board and they ran anywhere from a little over $500 which is what it took to get in to this particular contest up to eight hundred and fifty. Eight of these nine deals were by men that had been hired in the last six weeks. Now that means something to me.

The best deal was eight hundred and fifty dollars. It was on a half-ton pickup. The poor boy just didn't know that you weren't supposed to sell a half ton pickup and make eight hundred and fifty dollars on it. Now ain't that terrible?

One of the five hundred dollar deals was on the washout on the half-ton pickup. That went out the next day. That's thirteen hundred and seventy something dollars in a forty-eight hour period on a pickup!

Now, this is what new people and fresh attitudes will do for you.

We're gonna talk about training today and training is something that you'll live with as long as you're in the automobile business but don't overlook the forest for the trees. Because the big problem that we've got today and the problem that you'll continue to have and the only thing that you can depend upon for a permanent solution to anything is the right kind of people.

You remember now that we've got to prospect for 'em, just like you do for anybody else just like we do for sales, so we've got enough of the right kind of folks, that we can be selective.

This last little crop that Mr. Holland hired down there – and of course he didn't do it he got a man to do it – he hired four out of forty-one that he interviewed. Now that's being pretty selective I think and he got him some pretty good men there.

And course we've got to sell these people now on wanting to come in our business, 'cause the better the man is the less likely it is that he'll want to join the automobile business, and we know the reasons for this.

And we've got to have an adequate compensation program to attract him and the last thing we've got to do is to train him.

And we can take this young fresh fella now that doesn't have any, any kind of personality quirks, he doesn't know to do this or do that and he's no problem really – and we take this man and we train him how to do the job the way we want it done. And we've got permanent development there working for us all the time.

Now I think some of these men will end up somewhere along the line being managers and dealers. And that's what we need to prolong our business is to bring some fresh blood into it.

Now again we talked about training.

And I've been at this thing a long time and no telling how many people I've hired and I'll be very frank to admit and I'm very sorry to say that most of those people are no longer in the automobile business. And the reason is not their fault. The reason is that I was like a great many of you people and I didn't know what was important and what wasn't important and I'd

hire a young man that had a lot of talent and a lot of ability – least I thought he did when I hired him – and I'd bring him into the business and I promised him I was gonna train him and that was the end of it. I just never could quite get around to finding the time to do it. And after a week or two weeks or maybe a month, this man would be come despondent and he would leave the automobile business and so I had to do it all over again. And I'm telling you this men because I know you've got the same kinds of problems and it took me a long time to figure out – y'all profit from my experience.

And we know that if we do it this way it'll pay off.

I'll give you some figures. Lesson one, John Williamson's dealerships four years ago, hired eleven new men. I followed those men through for the next four years to see what happened to them. One of 'em went back out of the automobile business because we made a mistake in hiring this man just like you'll make a mistake. Out of the other ten, one of them is now a dealer, a new car dealer, out of the other nine, they are all still with Mr. Williamson in his various dealerships and five of 'em are managers.

Now that's what training will do for you. Every dealership that he's got started in Jacksonville, Florida in Key Buick Companies. Every dealership he's got started there. Every dealer that he's got started as a salesman that he hired and taught how to sell and then how to manage. Every manager that he's got is like that.

And let's ask ourselves the question sometimes "how many people do we have in our dealership that are capable of being promoted?" I hope we have a bunch of 'em.

But we've got to train 'em now to do it the way we want 'em to do.

Okay, let's talk a little bit about training now.

You look back over some of the schools and so forth that you've been in to in the course of a lifetime and you can probably pick out the one where the training was really good. Really good.

I've been to a bunch of schools but I think that the finest school that I ever went to in my life – it lasted four weeks – it was at Fort Benning, Georgia – it was in the summertime and it was hot – and it was a school to teach folks how to jump out of airplanes.

And gentlemen, this is an unnatural act.

So, nobody wants to jump out of a damn airplane unless he's crazy.

Now, they take these young folks and some old ones like me, this was about 15 years ago**. They take 'em out there and send 'em through a certain series of things to build 'em up and move 'em from phase one to phase two and one day they get 'em up on something they call a thirty-four foot tower and you jump off of that tower with a rope around you. The drop is 34 feet and the rope is something like we'll say 30 feet so it catches you before you hit the ground.

And they build the man up to the point, not only physically but emotionally, they build him up to the point where he can do a lot of things by instinct. And when he gets up there in that

damned airplane they know he ain't gonna do it because of just knowing how to do it, he's got to do it by instinct.

If he stands there and thinks about it long enough he won't do it at all.

So by the time they've got him to the point now of jumping out the airplane, which is 4 weeks after he starts, and they tell him to get up in that damned door and look at that ground and there it is 1200 feet away and they tell him to jump there ain't no problem.

In fact the way they do it is they hit him like that and usually before they hit you in the butt you're gone anyway.

This is the best training that I've ever been to from seeing training performed by people that were dedicated to what they were doing. Of course they had a little additional incentive in there, if a guy didn't do it right he was liable to do something wrong and get killed. See?

Which is a pretty fair incentive. We can't employ that on our people. At least I don't think we can. We ought not to.

I've seen some sales managers talk like they was gonna do it once or twice.

Now, this brings us back to training. If this kind of training was good, if this kind of training brought something out of a person that was desirable, then what is training?

Now, open your books.

*Ontario, Canada

**1954, age 31

IVR Annual Reading and Writing Goals*

$$0.1P_r + A_r + 10B_r + 0.1P_w + 5T_g + 10A_w + 10G_w > 150$$

where:

P_r = pages of medicine, basic science and other mission-relevant material read in fragments

A_r = scientific papers and book-chapters read

B_r = mission-related books read

P_w = creative mission-related pages written in fragments**

T_g= formal talks or lectures given for the first time

A_w = scientific articles and book chapters written and accepted***

G_w = grants submitted****

*Starting today and continuing through the last day of your career (note: there will be more reading in early years and more writing in later years but there should always be some of both – note also the absence of clinic notes, faculty meetings, visiting lectures, attendance at national meetings, etc., from this measurement – those things are of course also valuable in moderation, but should not be allowed to prevent you from reaching 150 points on this reading and writing scale.)

**This includes drafts of manuscripts, abstracts and grants; substantive emails to colleagues about medical, basic science and other mission-related topics; and journal entries. As noted in the preceding paragraph, it does not include taking notes during lectures or writing clinic notes, operative reports or letters in the context of the clinical care of patients.

***For the purpose of this writing goal, you should only count the ones in which you performed at least 25% of the faculty work involved in writing and submitting the paper or chapter; case reports count as 0.5.

**** For the purpose of this writing goal, you should only count the ones in which you are

listed as one of the key personnel and performed at least 25% of the faculty work involved in

writing and submitting the grant – note that you get full credit for this effort whether the grant

is accepted or not.