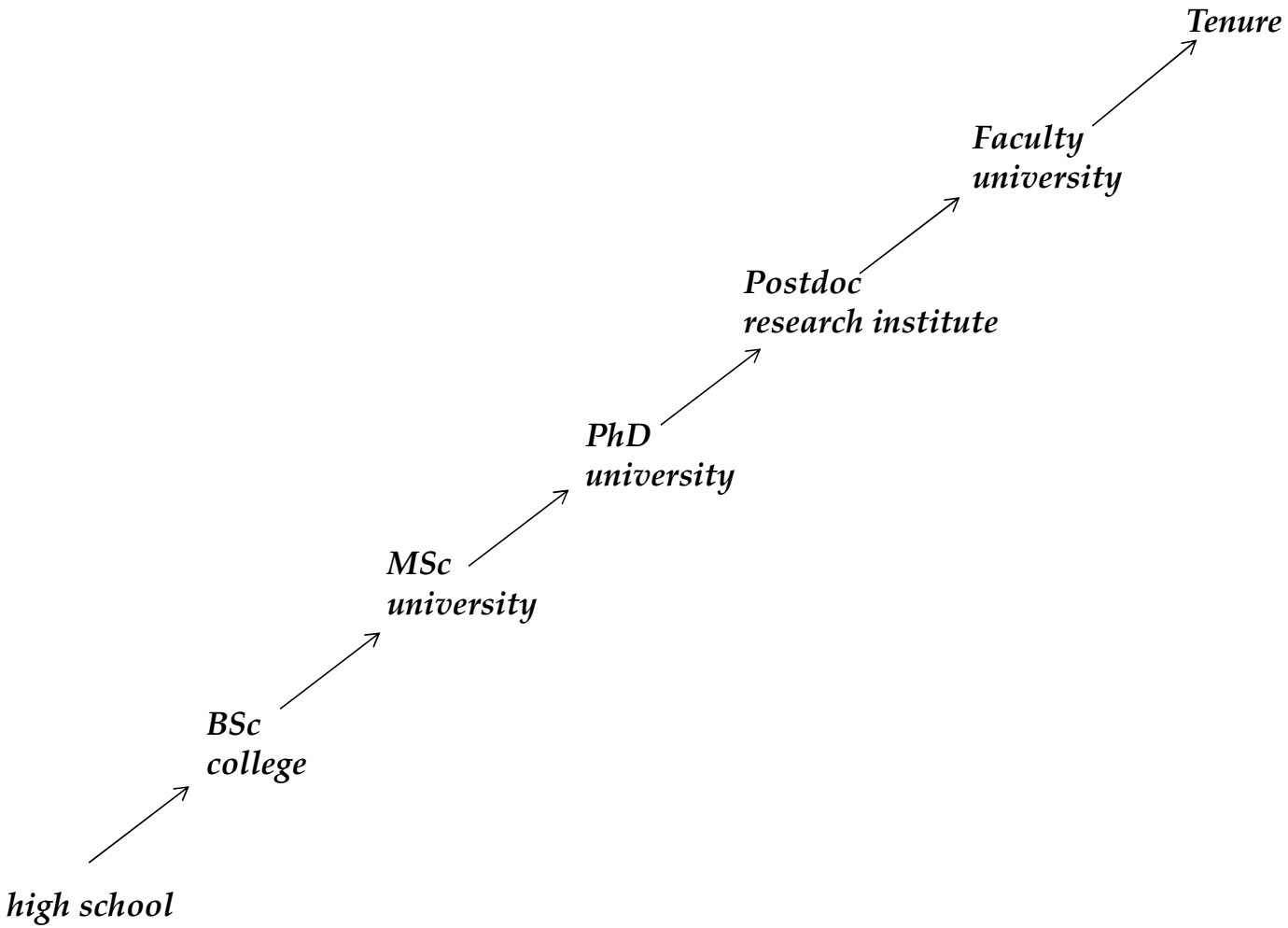
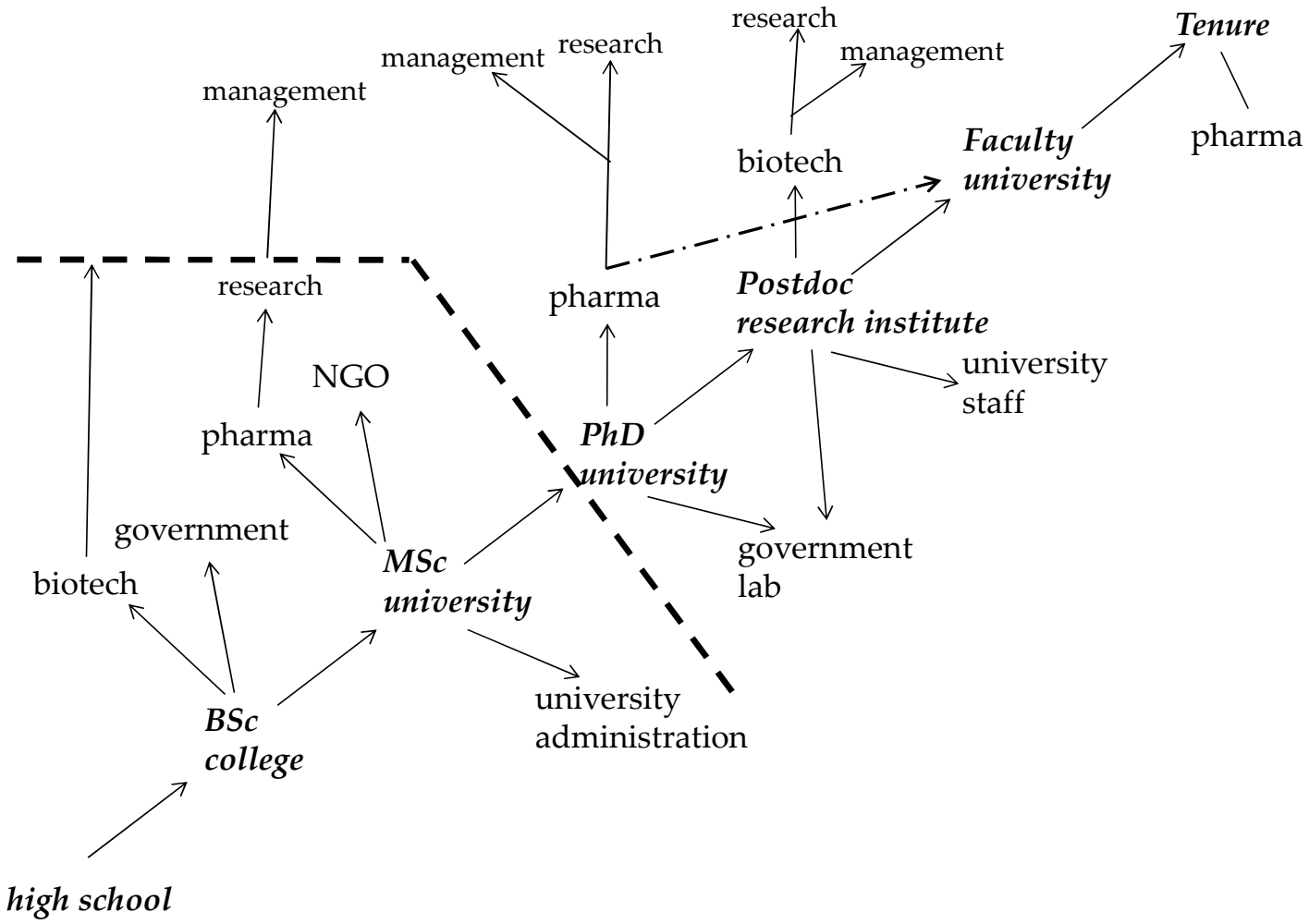
Career Management

A biomedical career path

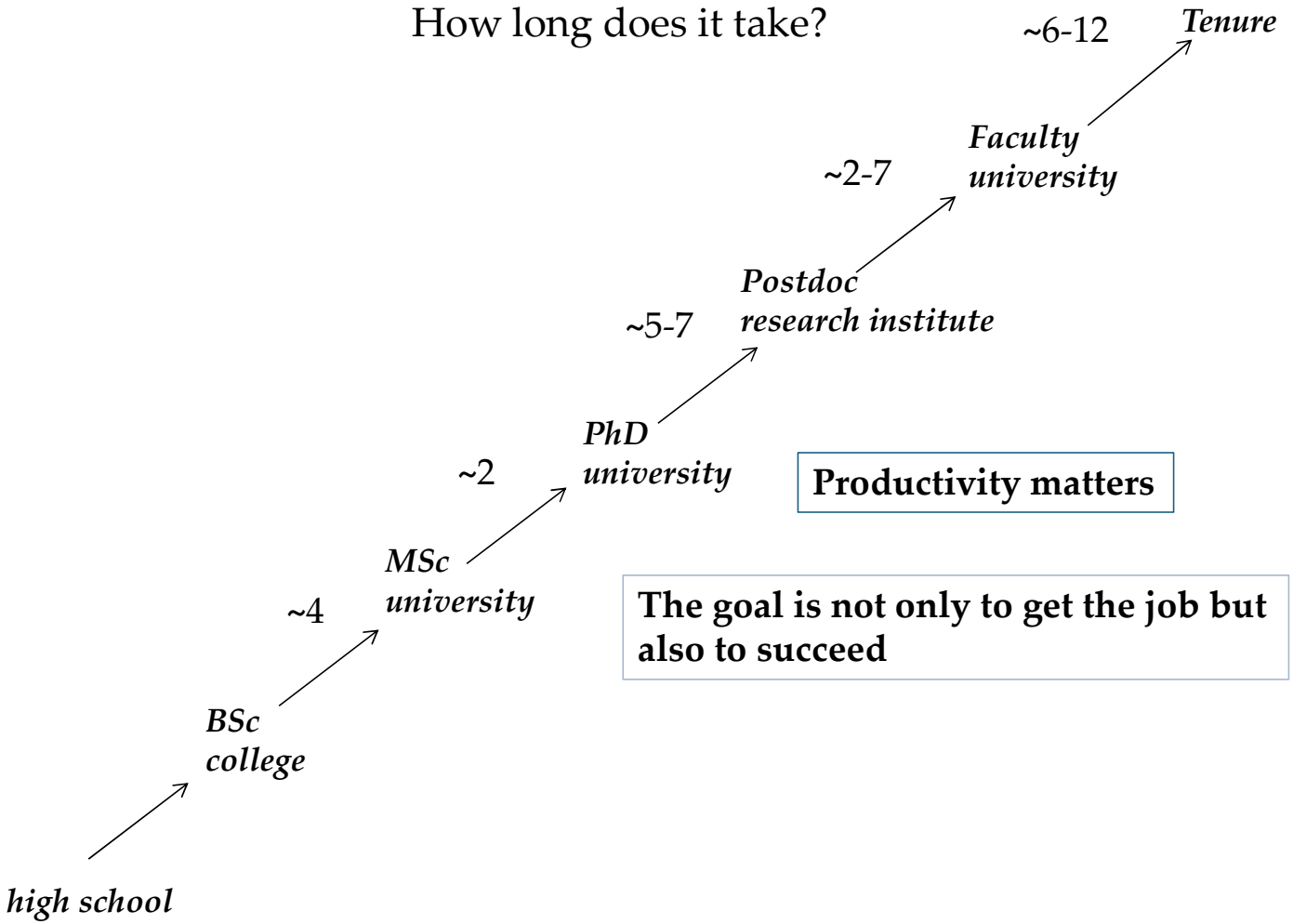


A biomedical career path



A biomedical career path

How long does it take?

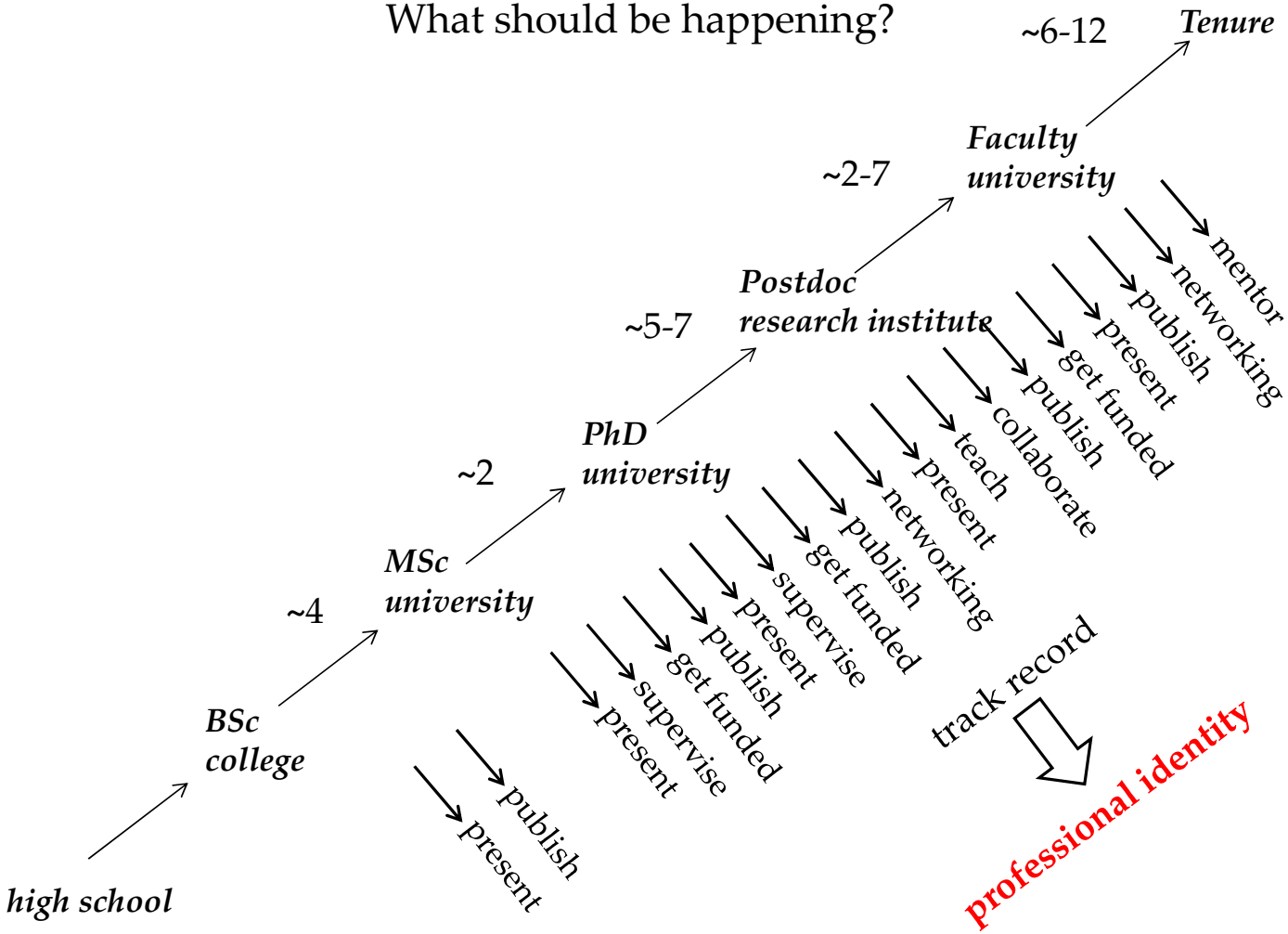


Productivity matters

The goal is not only to get the job but also to succeed

A biomedical career path

What should be happening?



Career advancement is not only getting a job or promotion, but anything that will add something useful to your CV

Career paths

Traditional Career

Sequence of positions held within an occupation

Context of mobility is within an organization

Protean Career

Frequently changing based on changes in the person and changes in the work environment

Employees take major responsibility for managing their careers

Dimension	*Traditional Career*	*Protean Career*
Goal	**Promotions** **Salary increase**	**Psychological success**
Psychological contract	**Security for commitment**	**Employability for flexibility**
Mobility	**Vertical**	**Lateral**
Pattern	**Linear and expert**	**Spiral and transitory**
Expertise	**Know how**	**Learn how**
Development	**Heavy reliance on formal training**	**Greater reliance on relationships and job experiences**

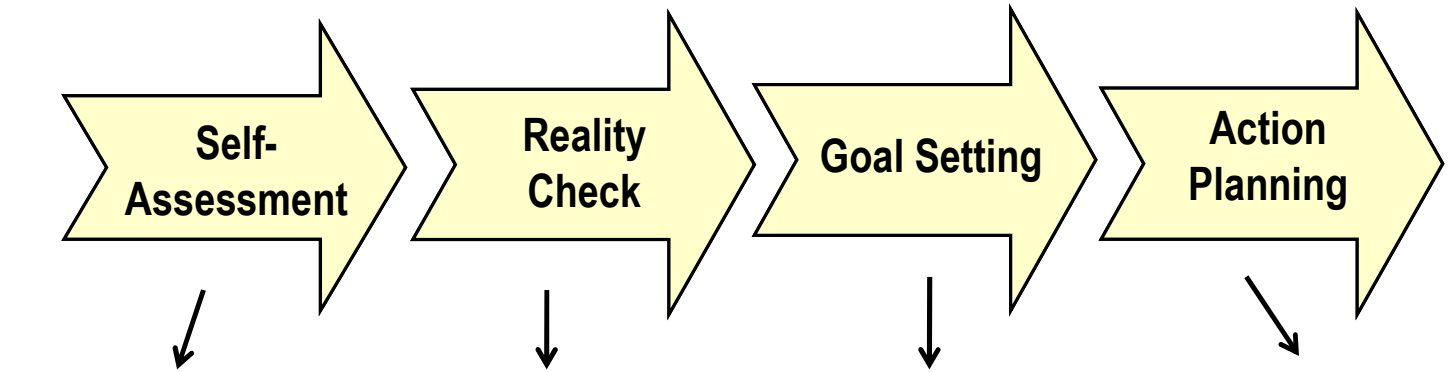
Adapted from Raymond A. Noe, Employee Training & Development, McGraw-Hill Companies Inc

Career management stages

- **Figuring out what you want.**
- **Development of overall goals and objectives.**
- **Development of a strategy.**
- **Development of the specific means (tactics) to implement the strategy.**
- **Taking action & implement the strategy.**
- **Systematic evaluation of the progress toward the achievement of the selected goals/objectives to modify the strategy, if necessary.**

Career management process

- Become aware of your interests, values, strengths, and weaknesses.
- Obtain information about job opportunities.
- Identify career goals.
- Establish action plans to achieve career goals.



Determine career interests, values, aptitudes,

Information about how your skills and knowledge are evaluated, and where you fit in.

The process of developing short- and long-term career objectives

Determining how you will achieve short- and long-term career goals

Adapted from Raymond A. Noe, Employee Training & Development, McGraw-Hill Companies Inc

Timeline of career development

- Career development is the process by which you progress through a series of stages.
- Each stage is characterized by a different set of developmental tasks, activities, and relationships.
- Stages:

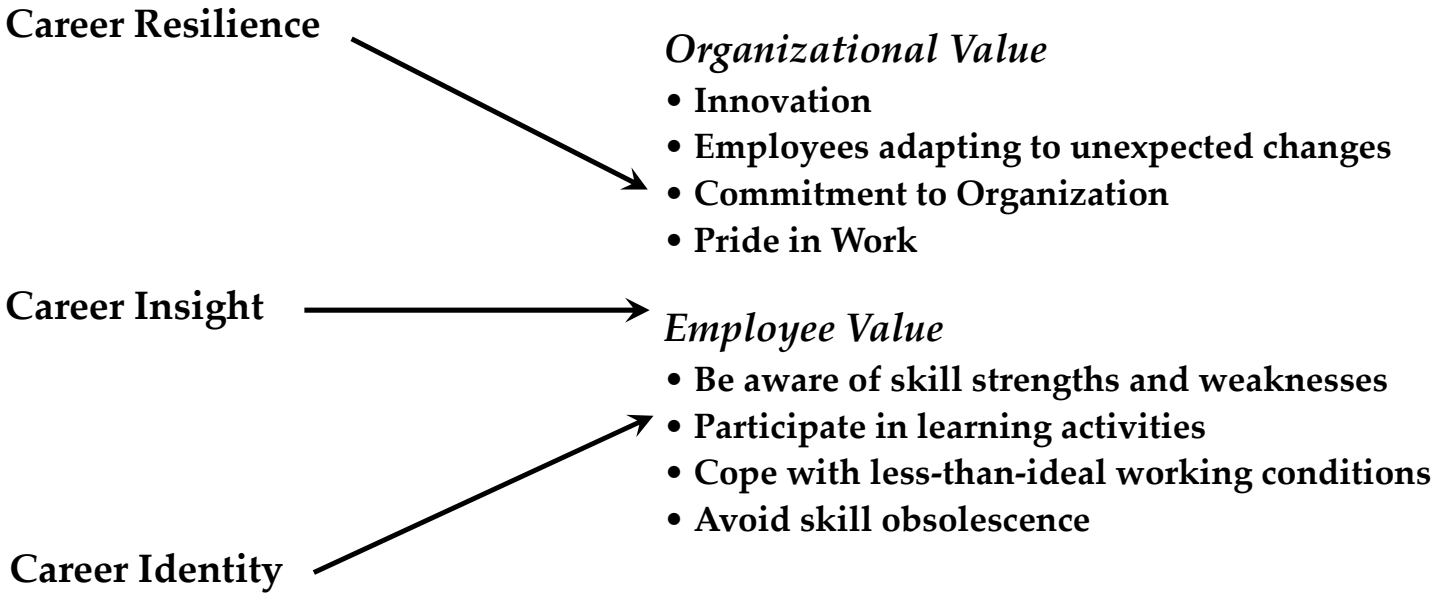
	Exploration	*Establishment*	*Maintenance*	*Disengagement*
Developmental tasks	**Identify interests, skills, fit between self and work**	**Advancement, growth, security, develop lifestyle**	**Hold on to accomplishments, update skills**	**Retirement planning, change balance between work and non-work**
Activities	**Helping Learning Following directions**	**Making independent contributions**	**Training Sponsoring Policy making**	**Phasing out of work**
Professional relationships	**Apprentice**	**Colleague**	**Mentor**	**Sponsor**

Adapted from Raymond A. Noe, Employee Training & Development, McGraw-Hill Companies Inc

Career motivation

- Your energy to invest in your career
- Your awareness of the direction you want your career to take
- The ability to maintain energy and direction despite barriers you may encounter

Career motivation has three components:



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Career motivation

From the organizations' perspective, the failure to motivate employees to plan their careers can result in:

- A shortage of employees to fill open positions
- Lower employee commitment and productivity
- Inappropriate use of resources for training and development programs

From the employees' perspective, lack of career management can result in:

- Frustration
- Feelings of not being valued by the organization
- Being unable to find suitable employment.

Adapted from Raymond A. Noe, Employee Training & Development, McGraw-Hill Companies Inc

Become inspired by someone & model him/her

- Think of a professional who you regard as successful – an inspiration/a role model

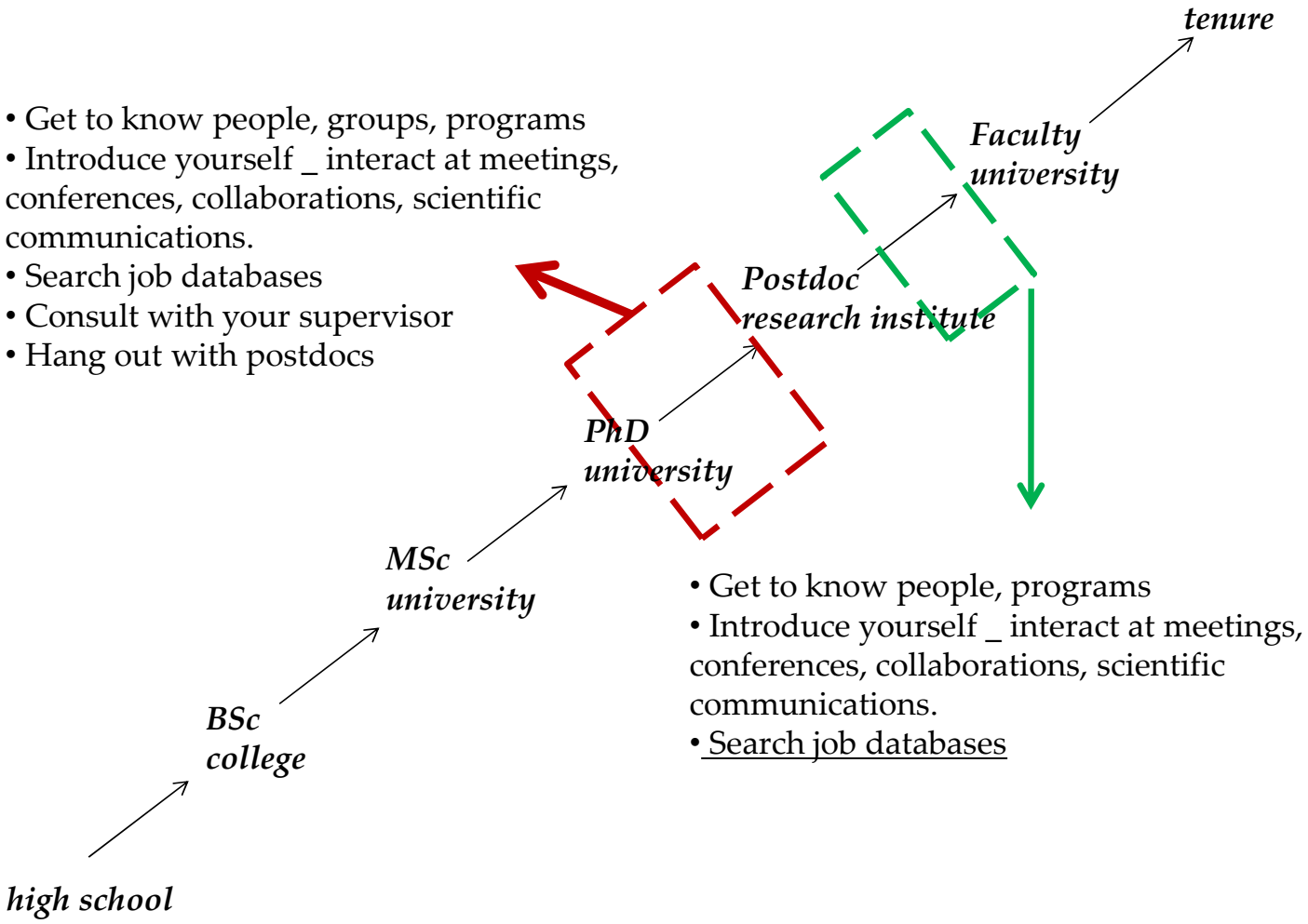
- What are their:
  - Qualities (e.g. characteristics, attitudes & values)
  - Skills (e.g. abilities)
  - Achievements (positions, distinctions, outputs)
  - Success factors (how did they get to where they are now?)

Supervisors' role in career management

Roles	*Responsibilities*
Coach	Probe problems, interests, values, needs Listen Clarify concerns Define concerns
Appraiser	Give feedback Clarify organizational standards Clarify job responsibilities Clarify organizational needs
Advisor	Generate options, experiences, and relationships Assist in goal setting Provide recommendations & counseling on career-related problems
Referral agent	Link to career management resources Follow up on career management plan

Adapted from Raymond A. Noe, Employee Training & Development, McGraw-Hill Companies Inc

When should I start searching for a job?



Where to look for jobs

Ads: <30-40% of positions are advertised (industry)
An unproductive activity that masquerades as a job search: it makes you feel like you were productive. Ad posters usually look for someone who has about 60-70% of the qualities that the ad asks for. Don't get stuck if you don't have all the credentials that the ad asks for.

Job fairs: short interviews, replaces campus recruitment, good interview training for a beginner,

Headhunters: not a great value when coming out of grad school or post doc. It's an expensive way of hiring and therefore usually target higher positions. They seek people with very specific qualities. Good source for networking leads.

The internet: gradually reducing the size of hidden job market. Cheap. Only worth applying to great fit.

Networking: …. follows

Industry versus Academia

Job Search

- Not all jobs are posted (30% Posted)
- Networking/interaction with other employees
- Negotiable salaries & benefits
- Could evolve into long-term employment
- Could evolve into a management career

Job Search

- Most jobs are posted
- Networking/ interaction with PI
- Fixed salaries & benefits
- PD is not long-term, faculty is.
- Science career, possibly administrative

Networking

•Essential to succeed and survive in uncertain times.
•Helps you find hidden opportunities and can set you apart from the competition.
•Build a network of partners to keep an eye open for new opportunities.
•Reach targeted individuals.
•Build visibility by raising your profile.
•Go to every professional/social gathering you can.
•Be active: professional organizations, conferences, social professional.
•Be respectful and ask for contacts and resources and not for jobs.
•Networking is not asking for a job.
•Offer yourself as a resource.
•Only use name with permission.
•Networking using social media: add email address you your profile, solicit colleagues and friends for recommendations,
•Networking at career fairs: cover the value you bring to a company (elevator speech). Provide resume and availability for work.

Adapted from Raymond A. Noe, Employee Training & Development, McGraw-Hill Companies Inc

Networking…more tips

•Golden rule: networking is time to carefully sneak in some self –promotion.

•Not true: " Don't worry about anything; your science will talk for itself".

•Do you suffer from a fear of self-promotion? The fear of self-promotion are the behavioral habits, thoughts or feelings that conspire to keep competent people from being able to stand up and tell people about what they are good at.

•You need to sell and promote yourself and make sure the prospective employer know how you can benefit them.

•Promote yourself, carefully and don't exaggerate too much.

•Learn to speak positively about yourself.

Selecting & getting a PD position

Select group based on:
-Available positions
-Subject, projects
-Productivity
-Reputation of PI and group
-Funding
-Career development
-Management style
-Culture
-Institution
-Location

Be competitive with:
-CV (publications, meetings, teaching, awards)
-Fellowship/grant
-Networking
-Know-how / expertise
-Recommendation letters

Landing a faculty position

Select appropriate university or college for you:
Teaching or Research?
State or Private?
Large or Small?
Theme Strengths.
Location?

What really counts to get a job:
Research plan and proposal (statement)
CV
Teaching experience
Already funded/ing
Independence
Quality and quantity of publications
Reputation of advisors
Prestige of PhD and PD institution
Campus interview
Recommendation letters
Know people

Apply/Inquire for a Job

The first contact:

- Do your homework: know the PI's / organizations' work/activities
- Adapt your letter/email/conversation to this specific PI/organization
- Show interest based on science/activity ONLY
- Highlight your strengths and the value you can bring to the group/organization
- Have good questions (science, projects, activities, time-frame)
- Ask for the next steps

Interview for industry job

Interview preparations:
Create a list of Qs: how large is the R&D team? What instrumentation do you use? What products do you have in the pipeline? The future?

Make a list of your strengths:
Research skills.
Solid multitasking skills.
Can work well independently and collaboratively.
Strong written and verbal skills.

After an interview ask the interviewer if there is something he has missed , some other information that did not come out, something else that you could send or follow up with.

Common Topics: Leadership, thinking and problem solving, communications, working effectively with others, initiative to follow up.

After the interview: inquire about the next steps and follow up in a timely manner. Thank you card or email immediately after.

A strong interview may garner consideration for future opportunities.

Interview for academic job

Interview preparations:
Create a list of Qs: Future research focus? Available projects? Management style? Funding? Career development opportunities? What happened to previous members?

Make a list of your strengths:
Theoretical background
Methodological expertise
Can work well independently and collaboratively.
Strong written and verbal skills.
Fellowship/grant

After an interview ask the interviewer if there is something he has missed , some other information that did not come out, something else that you could send or follow up with.

Common Topics: Know their science, independent thinking and problem solving, communications, working effectively with others, initiative to follow up.

After the interview: inquire about the next steps and follow up in a timely manner. Thank you email immediately after.
A strong interview may garner consideration for future opportunities.

Letters of recommendation

- Provide 3 references (contact info)
- People who know your science and how you work
- Your current and past supervisors
- No friends, relatives, lab buddies of the same rank
- Provide your reference with a summary (CV) of achievements
- Follow up and make sure letters have been sent

Perceived advantages of an academic job

- •Freedom to do what you like
- •Freedom in management of own time
- •Freedom in choice of research
- •Freedom to manage own project
- •Freedom to manage own career
- • Independence
- •Meet interesting people
- •International culture
- •Get to go to other places
- •Get to work with different people
- •Always learning
- •Opportunity to spin off company using intellectual property from research
- •Children's college tuition
- •Cooperation between departments
- •Social relevance of research
- •See broader impact of research in own field
- •Not about money/not commercially driven
- •Depth of research
- •Inspiring
- •Curiosity
- •Get personal fulfilment
- •Dynamic and creative environment
- •Exciting to work at the frontier where nothing is certain
- •Challenging to work where nothing is guaranteed
- •Multi-disciplinary
- •Be part of a global community
- •Education - get to teach and pass on knowledge
- •Less hierarchy than industry
- •You get the credit for your discoveries

Perceived disadvantages of an academic job

- Depth can mean you know a lot about very little
- Money for funding research
- Money for salaries
- Social recognition
- Can feel like a rat race (high competition for jobs)
- Uncertainty because of nature of fixed-term contracts/external funding
- Difficult to see through whole cycle from concept to product (academic focus on *concept*)
- Pressure and deadlines (worse than outside?)
- Long work hours culture
- Work is so engaging that it becomes difficult to switch off
- Have responsibility - your ideas/your freedom/ your problem if it goes wrong
- Not enough interaction with society and *users* of research

The taxonomy of higher education

Organizational structure & behavior

▪**Research Universities** offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give a high priority to research.

▪**Doctoral Universities** offer a full range of baccalaureate programs and are committed to graduate education through the doctorate.

▪**Master's (Comprehensive) Universities and Colleges** offer a full range of baccalaureate programs and are committed to graduate education through the master's degree.

▪**Baccalaureate (Liberal Arts) Colleges** are primarily undergraduate colleges with major emphasis on baccalaureate degree programs.

▪**Associate of Arts Colleges** offer associate of arts certificate or degree programs, and with few exceptions, offer no baccalaureate degrees.

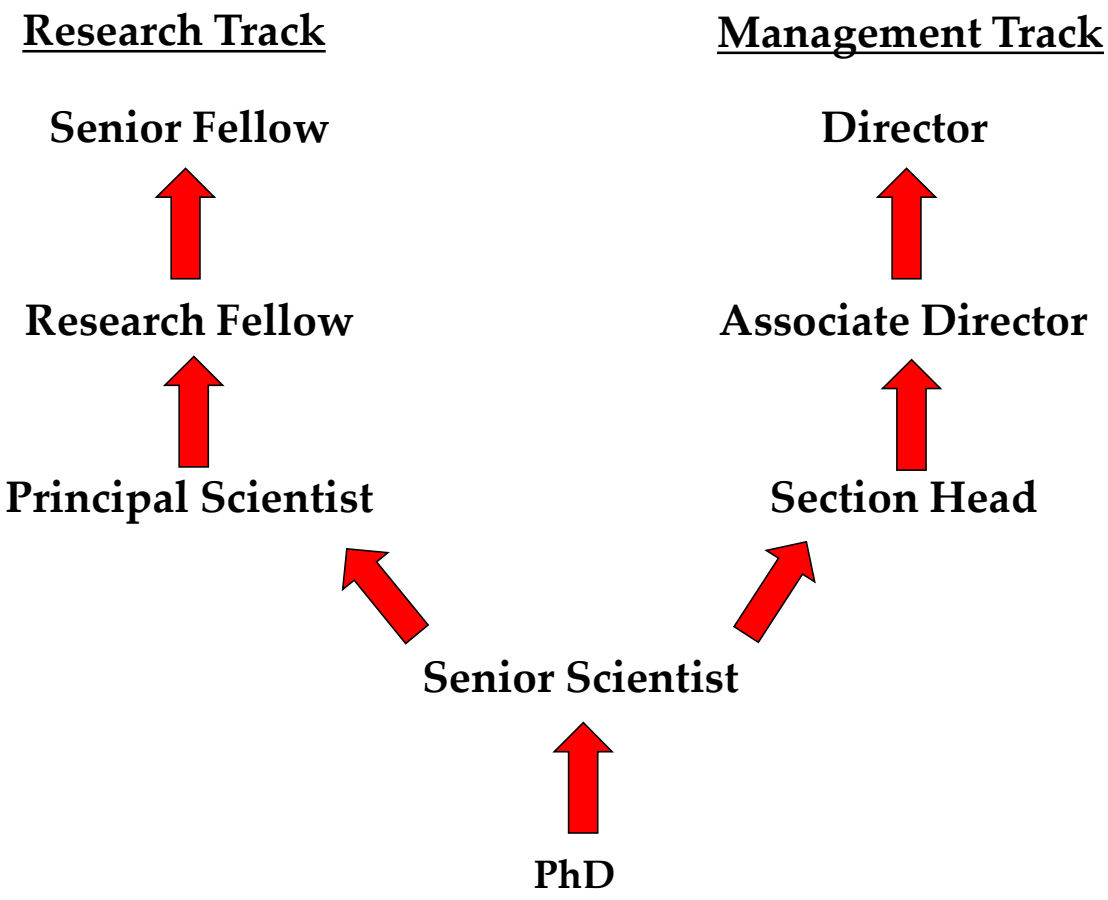
▪**Specialized Institutions** offer degrees ranging from the bachelor's to the doctorate and include medical schools and medical centers, and separate health professional schools, and schools of engineering and technology.

▪**Research Institutes** are not for profit entities that focus on research entirely. They may accommodate graduate programs (PhD) in affiliation with academic institutions.

Organizational structure of academia and industry

Academia	versus	Industry
President's Office President, Provost, Board of Trustees		**Corporate Headquarters** President, CEO, Board of Directors
School Dean, Associate Deans, Directors		**Division** President, Managers
Department Department Head, Administrators		**Section, Strategic Business Unit** Director, Managers
Group Faculty, Postdocs, Students		**Team** Team Leaders, Scientists

Career paths in industry



Leadership & Management

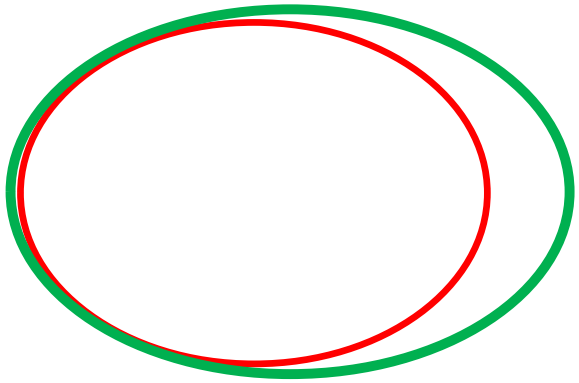
LEADERSHIP/LEADER:

•Safely leading a group of people into the unknown, towards a better place without a manual or map
•The ability to obtain followers through influence
•Provide vision and motivate people
•Goal-oriented
•The ability to influence a group toward the achievement of goals
•The ability to create an environment where individuals willingly apply their unique abilities to a common mission
•Leadership is about the relationship between leaders and their team

MANEGEMENT/MANAGER:

•Someone who can solve problems based on known solutions (with a manual)
•It is the process of assuring that the program and objectives of the organization are implemented as planned
•Make sure things happen through other people
•Task-oriented
•Use of authority inherent in designated formal rank to obtain compliance from organizational members
•All actions focused on accomplishing the tasks in an organization

Managers - Leaders



Can you "train" to become a good leader?

Yes, by taking initiatives that will require leadership role

EI: Emotional Intelligence

Sets apart good leaders

Intelligence (IQ)

•The ability for analytic reasoning, verbal skills, spatial ability, attention, memory, and judgment

•A weak predictor for achievement, job performance and overall success, wealth, & happiness

Emotional Intelligence (EI)

•The capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships.

•Accounts for a major component of employment success according to many studies covering career success; maybe as much as 70%.

EI: Emotional Intelligence

More potent predictors of career success are:

Ability to:

- handle frustrations
- manage own emotions
- manage own social skills

Is a biomedical career competitive?

YES!

Examples:
Publishing
Getting funded
Being recruited
Advancing the career
Invited to meetings
Recruiting staff and students

Know your strengths & weaknesses, recognize opportunities & threats

SWOT Analysis

The aim of a SWOT analysis is to identify key internal and external factors that are important to achieving the objective.

INTERNAL

Strengths: attributes of the person or group that are helpful to achieving the objective(s).

Weaknesses: attributes of the person or group that are harmful to achieving the objective(s).

EXTERNAL

Opportunities: *external* conditions that are helpful to achieving the objective(s).

Threats: *external* conditions which could do damage to the objective(s).

Dependency: the key to power

•The greater B's dependency on A, the greater power A has over B. When you possess anything that others require but that you alone control, you make them dependent on you and, therefore, you gain power over them.

•Dependency therefore is inversely proportional to the alternative source of supply.

"In the land of the blind, the one eye man is the king"

•If you can create a monopoly by controlling information, expertise, know-how, prestige, or anything that others need, they become dependent on you.

•Conversely, the more you can **expand your options** the less power you place in the hands of others.

Dependency is created by: importance, scarcity and non-substitutability

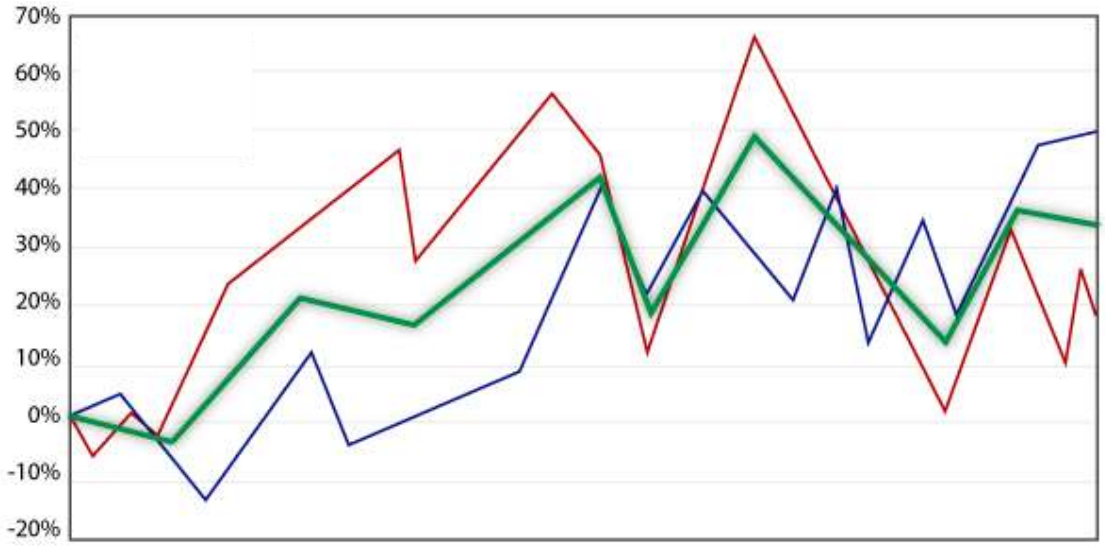
Differentiation strategy

Business definition: "The objective of differentiation is to develop a position that potential customers (employers) see as unique. A unique selling proposition is to communicate a product's (your) differentiation"

Expertise Differentiation: Carve your own niche

- Thematic
- Specific focus within a theme or topic
- Specific aspect of a process
- Different biological/model system
- Different methodology/technology
- Anything that makes your expertise unique and competitive

Diversification strategy



If one project/direction/option collapses, some other will work

Diversification strategy

Opportunity diversification:

Apply to multiple jobs
Keep multiple doors open
Always have a plan B

Thematic/subject diversification:

Develop projects on different subjects, but maintain interaction between them through some common factor (i.e. a gene that plays a role in different processes, a methodology, …

Diversify within a theme/subject:

Study different parts of the same system or process

Methodological diversification:

Use different approaches and methods to study the same process

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Don’t spread yourself out too thin,
and don’t put all your eggs in one basket

Other strategies

Be The Best At One Thing Advantage

Become the most knowledgeable and skilled scientist on one specific narrow subject

Technology & Methodology Expert Advantage

Become the best in a specific methodology/technology

The First Mover & Early Adopter Advantage

Use a methodology/technology or approach first. Make the first discovery of something

Collaborate Yourself Into a Field/Subject

Enter a new field through a collaboration with an expert in that field

Trend Wave Surfing

Look for trends (i.e.. studies highlighted in top journals) in other fields and adapt & apply to your field

Political Advantage

Being politically savvy and knowing the right people and knowing how to interact with them fruitfully can provide much competitive advantage: Interactions with supervisors, prospective employers, jurnal editors, grants managers, etc..

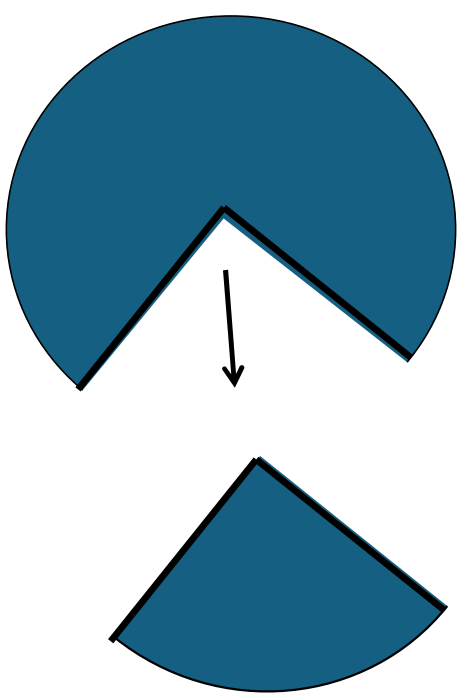
Balance political leverage versus scientific competence

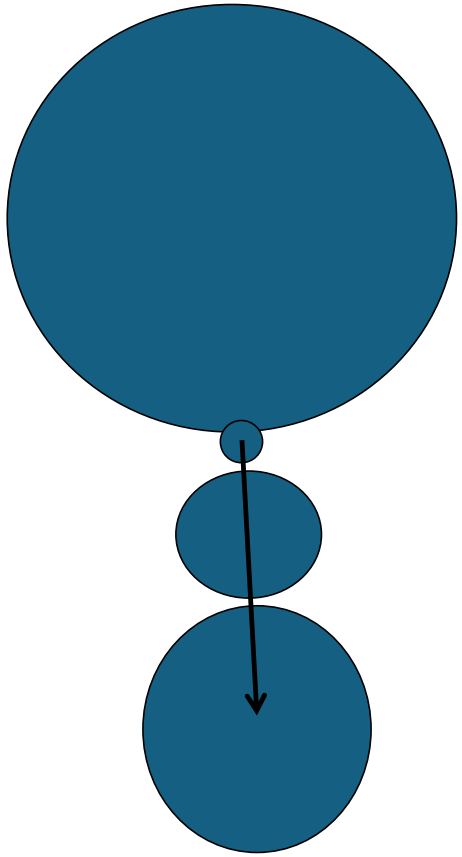
Thinking science or strategy?

How do you select the job/project?

Strategic factors versus Scientific interests

Breaking off OR budding off your P-doc group when starting your won group?





Communication

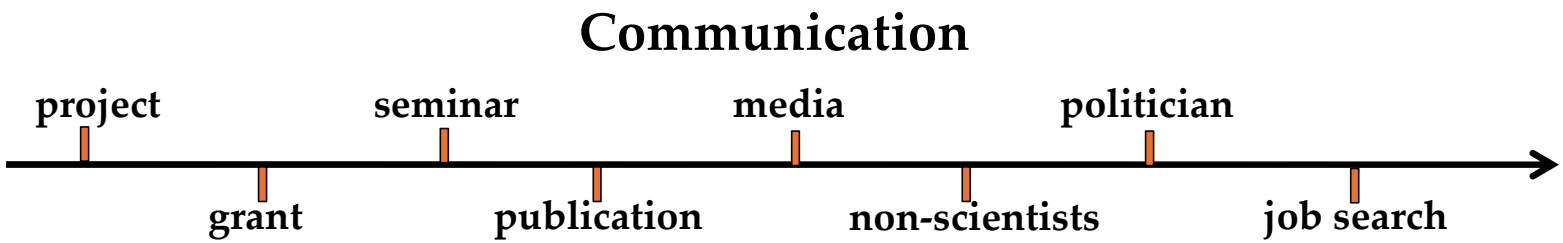
Is being good at communicating in a science career important?

Communication during or with

- project/everyday @work
- grant
- seminar
- publication
- media
- non-scientists
- politician
- job search

Email & Internet

Be Diplomatic & Tactful



Supervisor
Collaborators (intra, inter)
Colleagues
Students
Official institutional entities
Employers

Is being good at communicating in a science career important?

A process of transferring signals/messages between a sender and a receiver through various methods (written words, nonverbal cues, spoken words). The mechanism we use to establish and modify relationships, and leave impressions.

Communicating effectively is what gets you through each day, in both your career and personal life.

Communication is the medium through which scientific knowledge and your expertise is disseminated and **perceived**

Everyday communications at work

•The emotional state and attitudes you bring to communication will have a huge impact on the way you compose yourself, interact with others and the impression you leave.

•Whether you are speaking or listening, looking into the eyes of the person with whom you are conversing can make the interaction more successful. Eye contact conveys interest and encourages your partner to be interested in you in return.

•Your body is also communicating; be aware of it.

•Have courage to say what you think!, but think and plan first to make sure what you are saying is understandable and worth hearing. Organize and clarify ideas in your mind before you attempt to communicate them.

•Be clear about the purpose of the communication. Stay on-topic.

•Choose the right moment and the right place.

•Practice. Developing advanced communication skills begins with simple interactions.

•Develop effective listening skills. Not only should one be able to speak effectively, one must listen to the other person's words and engage in communication on what the other person is speaking about.

Communicating during the job search

To a prospective employer:

•Tell them about yourself, your research and expertise
•Tell them about what you find interesting with their research
•Propose a project
•Don't ask if they have a job for you – but tell them how you could contribute to their research/program/organization
•Once you have the offer; talk/negotiate on time-frame, project, salary/benefits, etc.
•Have a web page on your research and a well written CV

To your current employer/supervisor:

•Ask for advice
•Agree on what you can take with you
•Agree on a time-frame

Use email or have a summary of what was agreed shared through email