examination book

Qv 1

name Michael Plasmeier

subject 15.301

class ______ section ______

instructor ______ date ______

8.75 (Q1)
7.75 (Q2)

16.5/20

Memo

To: President
From: Michael Plasmeier, Staff Assistant
Date: 3/19/2012
Subject: Gender Considerations for VP Selection.

Mr. President, I have prepared the following report on whether the selection committe should consider gender in the selection process.

Pros.

1. <u>A greater viewpoint for the company.</u> Research has shown that getting a greater diversity of people brings a greater diversity of ideas and viewpoints. This tends to reduce group think,

allowing to look at a situation more wholistically and make better decisions. It would prevent an "old boys club attitude."

✓ 2. It would help us better serve our customers - who are 58% female.

Creative - at the same time, look at what the more tangible prospects of carbon trading are doing to US corporate power

3. Some countries (mostly in Europe) are setting diversity targets. If the US ever imposes targets or if we enter those markets, we will be better prepared.

4. A more diverse company looks better externally. This would help in PR ✓ and help us recruit a more diverse set of junior employees.

5. Many other companies have diversity committees and other measures.

class readings — My research has shown that almost every big company has a diversity program and tries to increase diversity.

Cons

1. Pick the best person for the job. A male candidate may be better for the job than any of the female candidates we have available.

It depends if for just the individual performance of the person in their specific job - or if you

Not sure I follow this

want a wide range of inputs at the VP Council meetings.

2. Reverse Discrimination / Color Blind Some people belive that a preference is simply reverse discrimination. They belive that you should just be gender blind and pick the best person for the job.

in readings (Well really the MIT Admissions controversy in The Tech I read and we talked about)

✓

3. Other Obligations The stereotypical view has been that women may have other obligations that means they are less dedicated to their work - ie they need to pick their children up from school or daycare. I read one case study about a computer sales company where

✓

McNeil reading

One of their managers left earlier than others because she had to pick up her kids from daycare.

4. <u>Vierpoint difference may be overstated.</u> On the other hand, the canidates we will get at the VP level might be totally dedicated to their work, and such the vierpoint they provide might not be all that different to warrent giving them special consideration.

Lots of good points, could have drawn more from class readings on college administrators

8.75

examination book

wide rule

8 sheets / 16 pages

7 in x 8 1/2 in
(17.8 cm x 21.6 cm)

7 35854 99589 8
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examination book

Qu 2

name Michael Plumeier

subject 15.301

class ______________________ section ______________

instructor ______________________ date ______________

As the leader of a small team of engineers with the mission of developing a faster video processor for cameras, I would use a number of steps to convince my team to make a decision.

I would first try to talk to to the different members of the team, particularly those ones that disagreed, individually. This strategy was not really presented in 15.301 but was in 15.565 - negiotations. At those individual "informal chats" I would ask the members of the team what their concerns were. I would then try to address

Fair enough as a substantive point, but cites from other classes don't really count.

concerns right there. I would also try to address all of them at the next team meeting. The rough idea is similar to how Fonda's character (12 Angry Men) started subtily influencing people at the deliberation. It's also similar to the reading on influence we did on the work of sales professionals.

✓ how?

I would remind people of the deadline and tell them that no decision would be worse than no decision.

I would expect that the people who supported the direction that I wanted to go in would help me in the meeting - just like the others helped Fonda in 12

✓

Angry Men. One difference is that I would not have to recruit them all since I am starting at 50-50 not 11 vs 1. This is also different from 12 O Clock High where the new leader had to earn his teams respect. In this scenario I already seem to have the respect of my team.

You weren't told the distribution of opinions!

Based on what evidence?

Like the sales people we read about, I would slowly influence them.

I could also think about the group effects that might be in play like at Slade Plating

7.75

A bit sparse -- didn't get into many of the details of the dynamics in Twelve Angry Men or 12 O'Clock High, (e.g. acting, timing, setting norms, higher purpose, seeking allies, cultivating new leaders) didn't mention Dubrinsky, barely mentioned Slade

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15.301 exam notes *preference reading 3/19

Pros	Cons
✓ Greater viewpoints - no old boys club	not ~~color~~ gender blind
✓ Larger sense of co direction vs specific job	pick best person for job
✓ Laws require in some countries	Reverse discrimination
✓ People view co better - PR - Hiring	Child care
Many other cos have diversity committees	May not have as diverse of a view point

What were the readings?
discrim at MIT
roommate influence
(I forgot what was the class vs others)
Diversity committees

Leadership and influence

(just like as Baker Pres)

Use tricks from 12 O Clock High + 12 Angry men

Salesman influence (don't really remember well...)

Subtily try to convince the people who disagree

1. Talk to privatly individually
   (was not in this class but 15.565)

(good thing I re-read!)

2. Ask them why they disagree
3. Remind them of the deadline
4. Tell them in this case no decision is worse than a bad decision.
5. Would not need to recruit people to help since many did
   (like in readings)

1
12 2
11 3
10 4
9 5
8 6
7

②

What was in the influence reading?

(Was it more direct sales techniques like

noticing stuff in their home

Or finding something in common

(or 15:36?))

Or ~~[illegible]~~ finding an ally

(I really don't remember - read at 2:30 am)

From: Stella Kounelaki <stellak@MIT.EDU>
Sent: Wednesday, April 04, 2012 4:21 PM
To: Styliani Kounelaki
Subject: [15.301] midterms

Follow Up Flag: Follow up
Flag Status: Flagged

Hi everyone,

For question 1 (gender), the median is 8.5 and st. dev. 0.6. For question 2 (leadership), the median is 8.25 and st. dev. 1. Any questions, please do let me know!

stella

15.301 3/21

(Asked if happy people are)

This is last of classes on power + influence

Jerry Sanders ~~(forgot to read that one)~~ (No I read it over the weekend)

Useful lessons in how he got ahead in life

What were his tatics?

How did his life start?

IDF

Isreal contacts ~~[illegible]~~ helped later

Study law

- does not want to be a lawyer
- wants upward mobility
- You can go into law for
  - intellectual challenge
  - improve world
  - make $ ← what he wants

2

- Goes to SF in law firm
  - networking
  - means to an end
- Meets Robert Shaw
  - who is like a VC guy
  - Sanders forces himself on Shaw

Sanders
- Confident
- Fast paced
- Charming

He helps him do a presentation for free (favor)
- So people say hes a good guy

~~[illegible] stop in [illegible]~~

Works w/ Schmulewitz w/ NeoVision

Goes to Chicago w/ Pritzker into Hotel Biz

Very sensitive to appearences

3

Then Startup again

buys small co to see that has 2nd product

top clients
top accounting firm
} to build credibility

6 Principles of Influence

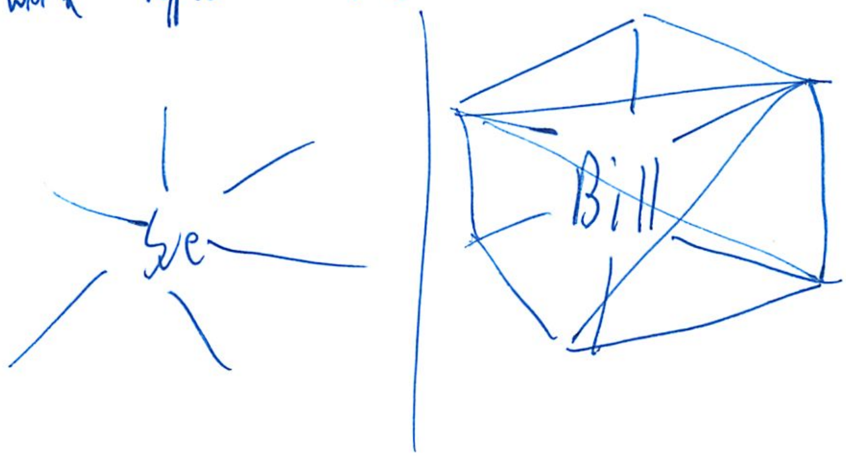
Robert ~~Ch~~ ~~Cia~~ Cialdini

- Friendship → get people to like you
  - Show presentation
- Reciprocity → flew out to show respect
- Authority → Got fancy Doc on board, fancy accounting firm
- Social Validation → Got lab at well known U
- Commitment → Small amt ~~$~~ 1st → Then ask for more
- Scarcity → Only small # shares left

Sanders is very strategic

4

Network types → Sue vs Bill



have same # of contacts

but Bill's contacts know each other

So Sue connects more

But word spreads about Bill - that he's a good guy

Bill's network more friendly

- community
- more comfortable

If Sue got hit by a bus

Gossip flows more in Bill's networks

If you are careerists - which to be?

Sue - central
Bill - still needed?
Bill - get info shared

5

No real ans which is better

Studying networks is big topic in socology

Abat communications and connections

Sue - more powerful

- all info flows through her

Sanders' Network

his job is to make connections - like Sue

(6)

Build your career at MIT
- Systematically build connections
- + weave together
- "Structural ~~w~~hole"

Sanders Video

(not how I pictured him)

Be persistent getting people to try to ~~the~~ take their calls

Only take things when they see you are interested

Say so + so told me to call
- Use contacts
- (will do this summer)

Meet doctors + inventors - say take to SF Science

Want top docs to join your board
- Pay them too
- They only take on unique tech

(7)

Must have a big name involved

Also try to sell tech

As a co - accumulate track record

- Cos know they will only go to them
  if they are serious

Don't have the emp to do everything that is profitable

- Could raise prices
- or add emp

Should not just people who can schmooze

- People know Co name
- not the individual partners

He thinks they provide a valuable service

Post

cocky
confident
Cell phone on his table
big Hollywood agent

8

Used car salesman

~~Bran~~

Burraatizing org

- Did it work?
  - Personality cult / characsmatic org
  - It's all his human capital
  - Does he want to make it burraaratic?
  - Could he live without the co?
  - After he retires?
  - Takes on apprentice?
- Org did fall apart - couldn't build an org
- He now teaches the Jerry Sanders case study.

Role + Typologoy of networks

Who who you know knows

Conduit or essential?

6 Influence ~~@~~ parts

9

Q: Is the network worth it if it didn't last

His personal network is still around

Networks change over time

Must constantly renew his network

Q Still important to be ethical in network

Is he serious?

Cynical comments?

Freud: Jokes reflect what people really think

How much does he compartimitize his personality.

Bill's network: Better for friends

Sue Better for career

How does your work life differ from personal life?

(10)

Q: Are agencies still relevant?

- travel agencies
- Prof: his knowledge is much more personal
- VCs are still very personal

Six Principles of Influence Robert Cialdini

- Friendship
- Reciprocity
- Authority
- Social Validation
- Commitment
- Scarcity

Robert B. Cialdini
Influence: Science and Practice, 4th Edition.
(2001) Allyn and Bacon

Six Principles of Influence Robert Cialdini

- **Friendship** → Get people to like you
- Reciprocity
- Authority
- Social Validation
- Commitment
- Scarcity

Six Principles of Influence Robert Cialdini

- Friendship
- **Reciprocity** → Flew out to show respect
- Authority
- Social Validation
- Commitment
- Scarcity

Six Principles of Influence Robert Cialdini

- Friendship
- Reciprocity
- **Authority** → Got fancy doc on the board
- Social Validation
- Commitment
- Scarcity

12/6

Six Principles of Influence Robert Cialdini

- Friendship
- Reciprocity
- Authority
- **Social Validation** → • Got lab at well known university
- Commitment
- Scarcity

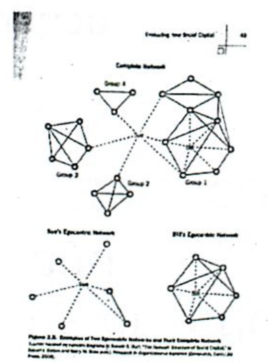
Six Principles of Influence Robert Cialdini

- Friendship
- Reciprocity
- Authority
- Social Validation
- **Commitment** → Small first buy in then ask for more
- Scarcity

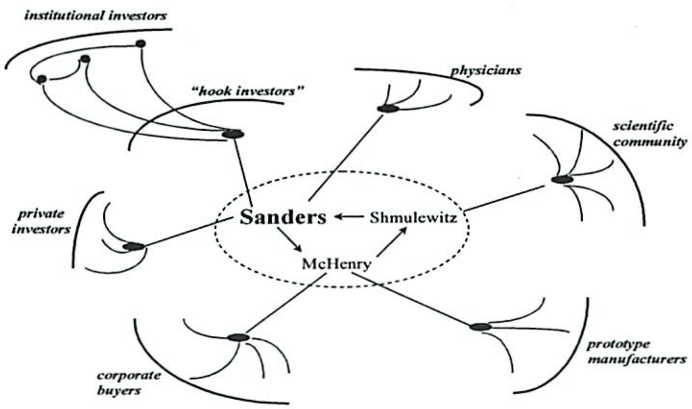
Six Principles of Influence Robert Cialdini

- Friendship
- Reciprocity
- Authority
- Social Validation
- Commitment
- **Scarcity** → Say that multiple bids for shares

NETWORK TYPES



Network Structure



Writing Mtg

15.301 Paper

~~[illegible]~~

3/19

Apply concepts to real life experience

Jae makes very good concepts

~~She~~ She didn't realize Normative

Rearrange topics to be 1 per ¶ and clearer on
each lens

Eval system
- could talk about same things w/ diff lenses

My Time at is not the focus
Need a particular question or focus
Could be about evals

Hards to know from 4 weeks if typical
for consulting
What makes a team high peforming is broad qu

Vulenrability of interns - no clear lang
- ~~[illegible]~~ should lang → normative
- interns are in vulnerable dept

②

Felt not clearly eval
What at stake besides feeling

Rewrite 2 teams

What to focus on?
- Communications - formal, informal
  - Company cafeteria
  - drinks on Fri
- ~~Dnot~~ eval system

Paper doesn't say
- Making voice heard - how affects performance or feelings
- Wanted voice to be heard
  - regardless of rank
- How is your peformance hurt if ignored

Once you understand correlation

~~Doesn~~ Doesn't see slides relates to culture
- what point trying to make

(3) Clarify critiques - structural - <u>same</u>
based on antidotal evidence

<u>Based on</u> interesting obs - but so ~~the~~ general

What are char. high performing team could be own paper

Carol's 3 lenses how orgs get done

Say what are successful

~~Things~~ Hirarachy Could look formal on paper
- soft ~~in~~ actuality

How exten ~~the~~ work
what it is
Structural - where exten fits
Politics - who has power
- do extens have power

Using my expeirnce as an exten -
answer do extens have power

(E)

Don't say much about consulting in general

Team members should not feel
- since normative

It was unfortunate some member felt they were wrong - and it affeted their effectiveness

Some missing links
Writing basically clear
Some pts wordy

33% different
- more how focus how saying
- have a lot of evidence
- the third of the framing need change

5-10% either unclear or wordy

Writing Final

3/22

New qu: do externs have power?

This is actually pretty positive...

~~The~~ Analize team or me
should be
broader
eaiss to write about
and I think he assignment

How can I answer that qu w/ just me?
(This is so stupid...)

(I think this is kinda worse, but w/e)
influence
- or just since talked about ~~the~~ the last 2 weel

I just can't get the dual focuses of this paper!!!

②

What to do w/ culture?

team's culture

Still have my other details in there

I saw how I ~~can~~ could improve IPs

I just don't get this paper!

Talk more about politics of convincing

Set up assume low power

---

key So what
notice frank
Whats interesting

Explain each - why considering

③

What unique to put in political?

- groups

(Learn more the more you do this!)

Ahh → in hap

or

- more culture

Getting staffed

I didn't realize how out of place that hirarchy slide was!

Never thought about upstaged by extern...

Watch normative!

I alredy got rid of the very objectionable statements!

I was very sloppy at the end

4

Conclusion: talk about .net

└ I do

Less wordy

— I like it as is → Precise

I still flip b/w industry, team, company

Hopefully ok...

Is the IP thing really bad – or was it just 1 part that was off?

Do Externs Have Power? My Time at Altman Vilandrie

Michael Plasmeier

Massachusetts Institute of Technology

Over IAP, I had the privilege of working for Altman Vilandrie and Company, a Boston-based management strategy consulting firm. As a one-month extern, I was joining the organization at the very bottom of the ladder. Could I still have an impact as an extern?

During my time at Altman Vilandrie, I was staffed on two teams. The first three weeks I worked on a data center market analysis with two other consultants. During the final week, I worked on the competitive analysis for a large multichannel video programming distributor (MVPD) (essentially a cable or satellite provider) with a different, larger team.

This paper analyzes the project teams that I worked on at Altman Vilandrie & Company and it explores the power that externs have. This paper analyses the question using the 3 "lenses" proposed by John Carroll (2006). This paper will use my observations from my month at Altman Vilandrie. Through a strategic design lens, externs have little formal power, as they start at the bottom of the ladder. However, interns can still exert significant political power by influencing other members of the team. Using a political lens, I will focus on a disagreement I had with another member of my team and how I worked to make my ideas heard. Finally, externs contribute to a team's culture. They, along with the other members of the team, bring their experience from previous work to build a team culture.

Strategic Design Lens

Most companies have a specific organization or hierarchy that divides who does what work. This hierarchy is often referred to as the organizational chart. Management designs the formal structure of a company to help the company achieve its goals and strategies.

In the management consulting industry, companies or other organizations purchase professional services from consulting teams. These teams are usually made up of between 3-7 people and work on a project anywhere from a few weeks to a few months. Unlike many other jobs, consulting works on a project basis – there is a clear start and end to a project. When a project ends, everyone is split up and is reassigned onto a new team.

The consulting industry is very hierarchical in terms of title and rank. People who graduate with an undergraduate degree start as "analysts," a role that is typically occupied for a number years. MBA graduates start as "consultants." Larger projects may be managed by a "project manager." Finally, projects are overseen by "principals." At some firms, there is a strict promotional schedule where you eligible for a promotion. At this point many firms also have an up or out policy that you must be promoted or let go. Although other companies may have different names for each role, they share a similar hierarchical structure.

Each role has a defined set of basic responsibilities. For example, principals are responsible for recruiting business, dealing with clients, and giving the final presentation. They are not generally involved day to day in the project. The principal usually owns the communication with the client. The principal basically served as the interface between the team and the client. Analysts are responsible for much of the detailed research that is needed in the project. Primarily, analysts work with Excel, generating complex spreadsheet models. In addition, in many cases, analysts draft copies of slides. I was an analyst extern.

However, with both of the teams I was on at Altman Vilandrie, if needed, people would reach beyond the job description to help out the team. The first team I was on was made up of two consultants. Because they did not have an analyst on their team before I joined, the consultants did the research work. In addition, when a project came close to crunch time, the principal would often pitch in and help with the work.

In addition, on both of teams I was on, we would sometimes discuss issues as a team. At that point, I felt that we were a team of equals – I felt that all members could provide their input on what they thought the problems and solutions were. Despite being hired to do low-level research, the strategic design of an organization still allows externs to contribute to the work.

From this experience, it seemed that that the teams that I worked on had a good mix of hierarchy, but internal flexibility when needed. The hierarchy put newer members closer to the actual work, but when it came time to crunch time, more senior members of the team were willing to help. In addition, the teams still welcomed the opinion of the lowest ranking members of the team. This helped the team achieve the best possible output product.

Political Lens

Individual members of the team had different interests and priorities. Carroll's (2006) political lens decomposes the goals of an organization's goals into the goals of individuals. These may be the same as the organization's goals or they might be separate. From my experience, every member of the team wanted to solve the client's problem. However, different members of the team had different ideas on how to accomplish that. I will speak more about a disagreement I had with a member of my team later in this paper.

The lady who was in charge of staffing at the firm was in position of power. She could make your life fun or miserable depending on what type of project you were staffed on. Thus many people made sure to stay on her good side. A good project might be one that is more interesting or more varied than the one you were working on before. I remember hearing people joking that if you got on her bad side you would be doing straight "due diligences" for several months – a less interesting type of project.

Altman Vilandrie is a "low travel" firm. This means that most people spend most of their days in the office. This is different from other consulting firms. This allows some group relations to form because people saw each other in the office. In particular, people gathered to eat together for lunch. This helped people form groups that lasted beyond single projects. Groups that exist beyond the formal hierarchy help spread information and get things done for the group.

As an extern, because you recently started, you do not have a group of friends. In addition, because you will be leaving soon, people might be less willing to invest social capital in you to bring you into a group. This makes it challenging to exert political power as an extern.

Cultural Lens

During my month in consulting, I was able to observe the attitudes of management consultants first hand. I observed how consultants present to each other and to the client. I have noticed that the experience has changed how I approach some situations in my life after leaving Altman Vilandrie.

One of the consultants I worked with treated the hierarchy very formally. He only talked to the principal when absolutely necessary. Even though it was only internal, he would still try to prepare polished work for the principal. A lot of time was spent polishing slides, just to change them again later. However, on the other team I was on, people did not seem to share as strong an aversion to talking informally with the people higher up on the hierarchy.

Having a hierarchy allows each person to focus on their part, without becoming too involved in other people's work. However, this hierarchy-reliant culture reduces the cohesiveness between the team members, reducing the flow of information. This might result in a well presented, but poor recommendation to the client.

As an extern on two projects, I realized a difference in culture between the two teams that I was on. Because all of the teams turn over fairly frequently, each team's culture is different. As people move from project to project, they learn and perpetuate certain aspects of team culture. Externs might be able to have some impact on the culture of a group, since some externs have had previous work experience. Externs mostly absorb the culture of a team and the firm in the short time that they are on a team.

A Political Conflict

During my second project I had a conflict with the senior analyst on my team. He and I had significant disagreements regarding the facts of the project, the direction we should research in, and the emerging recommendation for the project. I felt like we disagreed on almost every aspect. My experience here shows how an extern can still exert influence over the direction of a project.

First, we disagreed about the technical facts of a system. The other analyst thought that something was technically possible, when I was pretty sure it was not. I thought I was better qualified to think about the technical merits of the system. While I had a technical background, the other analyst did not. He was a history graduate from Harvard.

We also disagreed on where to spend research time. I thought that a bit of technical research was important, so that we could better understand our client's motivation in building their product. Understanding their motivation would help us hypothesize about why they were asking the question they hired us to answer and the type of answers that there were really looking for.

The senior analyst and I also disagreed on how to present and format research. He thought that it would be good to have an Excel spreadsheet of the data. He believed that was what the project manager was expecting. I thought using OneNote was a good idea. I tried using Excel, but I just found it too limiting and slow. I switched to OneNote. When I presented my work to the project manager, she really liked the use of OneNote as a research tool.

The senior analyst had power because he had been at the firm for about two years and I was just an extern. In addition, he had been working on the project for a week or two, while I had just joined the project. Perhaps he disagreed with me because he did not want to seem upstaged by an extern.

To try to get my ideas adopted by the team, I needed to convince the team about my point of view. First, I just did things the way I thought was best. This did not take much more additional time and this allowed me to be able to present the team with results. From my experience, showing up with results made it easier to convince people than simply showing up with theories.

I attempted to convince the other analyst on the project that my views were correct. This was difficult because he worked closely with the senior analyst before. Those two were on the project before I started, and they probably worked together before. The other analyst appeared to stay neutral – unwilling to pick a side.

My most successful strategy was I talked directly to the project manager, bypassing the senior analyst. The project manager liked my ideas and adopted them, shaping the project. By bypassing the senior analyst, I was able to achieve my goal of influencing the project in the direction I thought it should go. I played politics to make my voice heard.

I don't think the senior analyst appreciated me going above him to the project manager. If I was correct in postulating that he did not like getting upstaged by an extern than this strategy might not have been optimal regarding my relationship with him. However, he would likely not be the one who provides a recommendation to the HR committee.

Putting the Lenses Together

During my time at Altman Vilandrie and Company, I saw that externs can actually have substantial power. At first it appears that the structural design and political power works against externs. Externs are starting at the very bottom of the ladder. Externs start without knowing the other people, and must form group memberships. However, this is challenging because they will be leaving again soon. However, the structural design of the organization can empower externs by allowing the best ideas to rise to the top. An extern can still recruit supports and try to influence members of the team to support their point of view. All group members bring their past work experiences to the team in order to form a team culture. Externs contribute to this by bringing their own experiences to the table and learning the culture of consulting, the firm, and the teams they work on.

References

Carroll, J. S. (2006). Introduction to Organizational Analysis: The Three Lenses.

15.301 Recitation

3/23

(Turned in paper)

COHUS Form

- more details on recruitment
  - 2-3 sentences
- need consent form
  - Sample on COHUS website
- She needs to do training herself
- call them if you are still confused
- Can give general qu + get approval
  - then can modify - under qu

Read Book on Survey Research

Sample questions online

GSS - in person interview

(C)

Lit Review

Read refs of other papers

L esp for more recent papers

Method

Vs: survey

SAT group: Survey and Experiment

~~To~~ Jae: seperate - or else people do it twice

Survey Research + Experiments

Probalistic Sampling

So its not biases

population reflects who you want to talk about

Non prob. Sampling

Can do - but not as robust

- Snowball
- Convienence

(3)

Experiments

treatment and control

ethnicity is not a treatment

└ do a treatment to group

randomly assign people to groups

so attributes rel. same

- lab
- web
- natural

trick is writing qu

some tips on slides

- mutually exclusive

Qualatative Fied Research

- ~~an~~ external observer
  - people may not recognize their own nature
  - build rapport

9

- but do you participate in it?
- did you drink the kool Aid?
- or they act differently when you interview them

She is less familar w/ qualative - more quantative

Don't just ask yes or no questions

They might not be aware of stuff

Categorize + sort → coding

---

10 pg draft due 4/6

15.301 Recitation March 23rd

Analyzing Quantitative Data I

Sources:

Babbie, Earl. 2007. *The Practice of Social Research*. Belmont, CA: Thomson Wadsworth.

Moore, David S. 2000. *The Basic Practice of Statistics* (2nd ed.). New York, NY: Freeman & Company.

Statistics: Datasets, Variables, Distributions

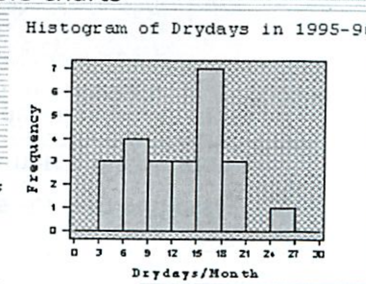
- Statistics is the science of data.
- Data is organized in dataset.
- A **dataset**:
  - individuals (or whatever the unit of analysis is) are the rows
  - variables are the columns
- **Variables**:
  - discrete variables: male-female, ethnicity, etc.
  - continuous variables: age, height, salary, etc.
- The **distribution** of a variable tells us what values it takes and how often it takes those values.

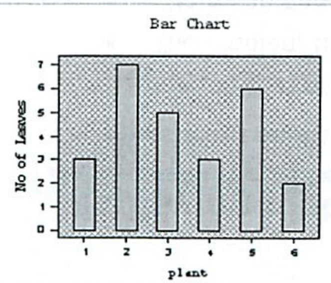
Exploratory Data Analysis

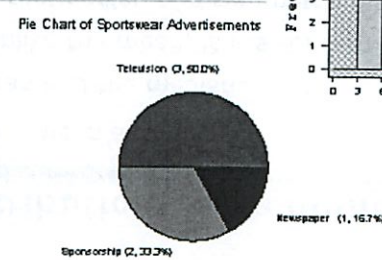
- Statistical tools and ideas help us examine data in order to describe their main features. This examination is called **exploratory data analysis**.
- Two tips:
  - Begin by examining each variable by itself (slides 4-9). Then move on to study the relationships among the variables (slides 10-16).
  - Begin with graphs (slides 4 and 5). Then add numerical summaries of specific aspects of the data (slides 6 and 7).

Displaying distributions with graphs I

- Discrete variables: bar graphs and pie charts
- Continuous variables: histograms







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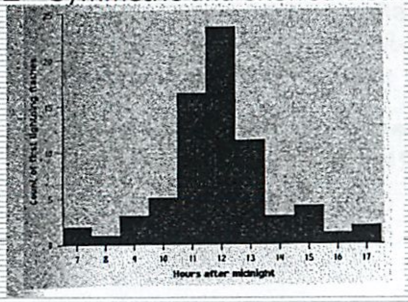
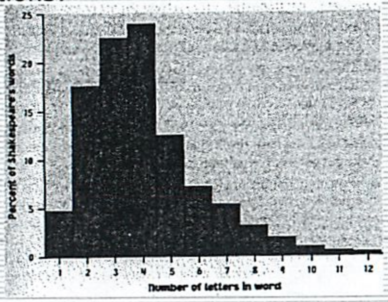
Displaying distributions with graphs II

- Describing/ interpreting a histogram:
  - Look for the **overall pattern** and for striking deviations from that pattern.
  - The overall pattern of a histogram can be described by its **shape**, **center**, and **spread**.
  - An important kind of deviation is an **outlier**, an individual value that falls outside the overall pattern.
- Symmetric and skewed distributions:





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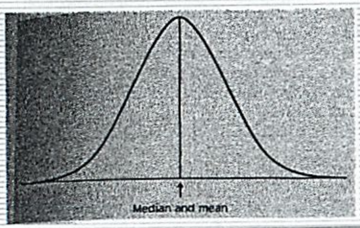
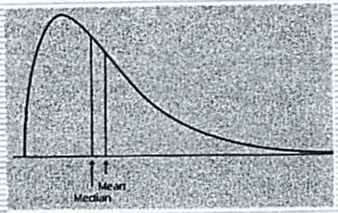
Displaying distributions with numbers I

- **Measuring center**: mean and median
- Comparing the mean and the median:
  - The median, unlike the mean, is resistant to outliers.
  - The mean and the median of a symmetric distribution are close together. If the distribution is exactly symmetric, they are exactly the same. In a skewed distribution, then mean is farther out in the long tail than is the median.

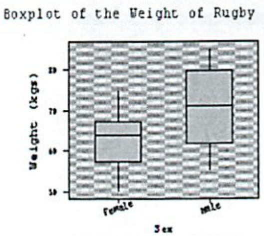


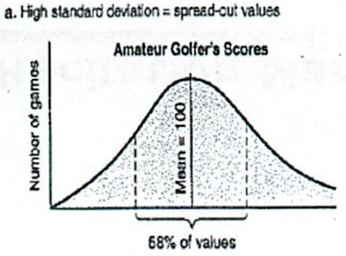


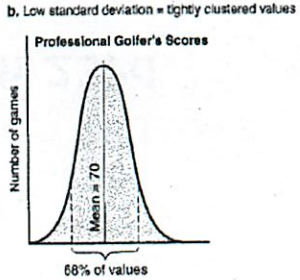
6

Displaying distributions with numbers II

- **Measuring spread**:
  - Five-number summary (represented by a boxplot): minimum, Q1, m(edian), Q3, maximum
  - Standard deviation: measures spread by looking at how far the observations are from the mean

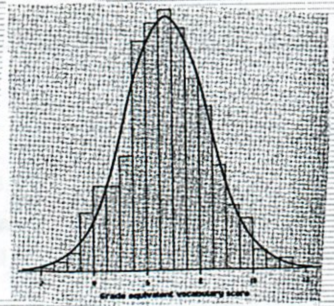






Density curves and the normal distribution I

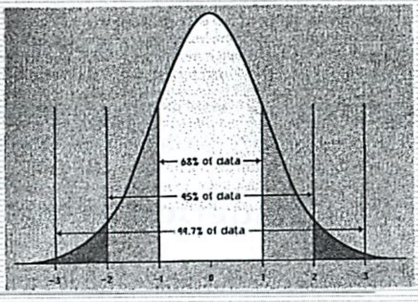
- We have seen so far: always plot your data, look for the overall pattern, and calculate a numerical summary.
- One more step: sometimes the overall pattern of a large number of observations is so regular that we can describe it by a smooth curve.
- The curve is a mathematical model for the distribution. It is an idealized description.
- The total area under the curve is 1. Areas under the curve then represent proportions of the observations. The curve is a **density curve**.



8

Density curves and the normal distribution II

- One particular important class of density curves: the normal curves that describe normal distributions
- The exact density curve for a particular normal distribution is described by its mean and its standard deviation.
- The 68-95-99.7 rule:
  - 68% of the observations fall within 1 st. dev. of the mean
  - 95% of the observations fall within 2 st. dev. of the mean
  - 99.7% of the observations fall within 3 st. dev. of the mean.

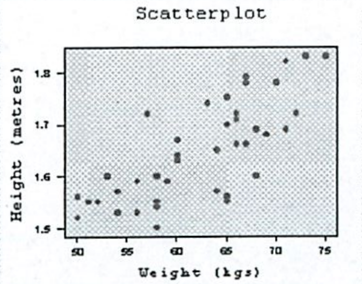


Examining relationships between variables

- Examples:
  - A medical study finds that short women are more likely to have heart attacks than women of average height, while tall women have the fewest heart attacks.
  - An insurance group reports that heavier cars have fewer deaths per 10,000 vehicles registered than do lighter cars.
- These and many other statistical studies look at the relationship between two variables.
- Continuous variables: scatterplot, correlation, least squares regression.
- Discrete variables: two-way tables, percentages, conditional distributions

Relationships between continuous variables I

- The most common way to display the relation between two continuous variables is a **scatterplot**.
- Here, again, we look for the overall pattern and for striking deviations from that pattern.
- We can describe the overall pattern of a scatterplot by the form, direction, and strength of the relationship.



Relationships between continuous variables II

- A **scatterplot** displays the form, direction, and strength of the relationship between two continuous variables.
- **Linear relations** are particularly important because a straight line is a simple pattern that is quite common.
- We say a linear relation is strong if the points lie close to a straight line, and weak if they are widely scattered about a line.
- Our eyes are not good judges... **Correlation** is the measure we use.

Relationships betw[een continuous] variables III

Patterns closer to a straight line have **correlations** closer to 1 (positive association) or -1 (negative assoc.)

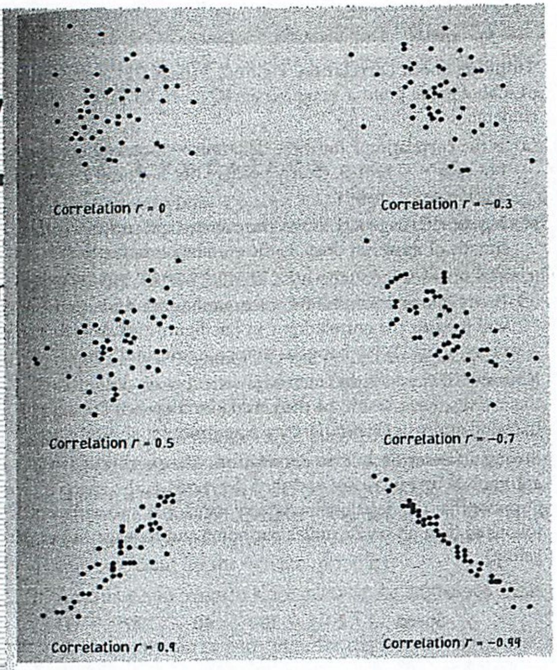
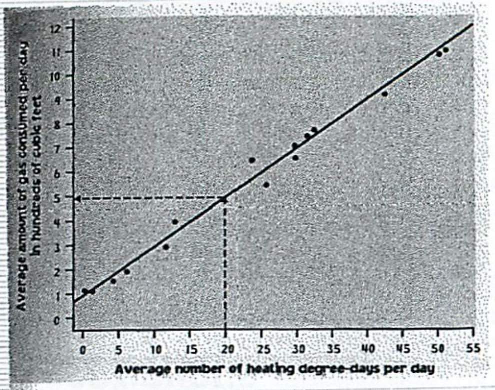


Figure 2.9 *How correlation measures the strength of a linear relationship. Patterns closer to a straight line have correlations closer to 1 or −1.*

Relationships between continuous variables IV

- A **regression** line summarizes the relationship between two variables, but only in a specific setting: when one of the variables helps explain or predict the other.
- **Association does not imply causation**: even if the association between y and x is very strong, it is not by itself a good evidence that changes in x actually cause changes in y (see slides Feb. 20).



Relationships between discrete variables I

- To analyze discrete data, we use the counts or percentages of individuals that fall into various categories.
- The table on the right is called a **two-way table** because it describes two discrete variables.
- 23% of people over 25 years of age have at least 4 years of college education.

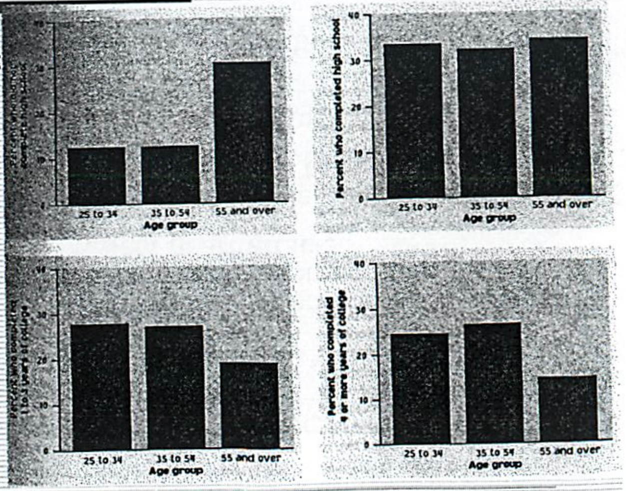
Table 2.9 Years of school completed, by age, 1995 (thousands of persons)

	Age Group			
Education	25 to 34	35 to 54	55 and over	Total
Did not complete high school	5,325	9,152	16,035	30,512
Completed high school	14,061	24,070	18,320	56,451
College, 1 to 3 years	11,659	19,926	9,662	41,247
College, 4 or more years	10,342	19,878	8,005	38,225
Total	41,388	73,028	52,022	166,438

Relationships between discrete variables II

Conditional distributions:

Conditional on being 25-34 old, how many people complete 1-3 years of college?



Michael E Plasmeier

From: Jae Kyung Ha <jkha@MIT.EDU>
Sent: Friday, March 02, 2012 2:25 PM
To: Jae Kyung Ha
Subject: [Jae, F12-1, E51-361] slides, group project examples and readings

Follow Up Flag: FollowUp
Flag Status: Flagged

Hi all,

So I've posted this week's PPT slides which I've updated from the original (thanks Lizz for reminding me!) and also added some readings to help you understand how to construct the overall structure of your team paper. As Peter asked after class, it might not sound clear to you how "data analysis", "discussion" and "conclusion" are all different. So the best way to understand it is to read a well structure papers! I have posted two papers, Pager and Quillian 2005 and Turco 2010, which are nicely structured and also RELEVANT to our topic.

Pager and Quillian ran experiments to find out unspoken racial discrimination in employment process. Turco's one is a qualitative study (interview) to see if how two minority categories "women" and "race" are differently penalized in a particular wall street setting. These are all written by professor-level authors over a long span of time and high effort, so you don't need to raise your bar too highly after you read them.

More close to you guys would be the examples of previous students. So I posted 3 PPT slides of previous students on Stellar; these are considered as good examples but I'm sure you'll do better than them :)
Next week we expect to get a proposal for your group project, so please use all these readings for your brainstorming!

Have a good weekend and let me know if you have any questions or concerns!

-Jae

And most papers have that

Organizing Ideas

Organizing a Manuscript With Headings

Levels of heading establish through format or appearance the hierarchy of sections to orient the reader. All topics of equal importance have the same level of heading throughout a manuscript. For example, in a multiexperiment paper, the headings for the Method and Results sections in Experiment 1 should be the same level as the headings for the Method and Results sections in Experiment 2.

TOC

In manuscripts submitted to APA journals, headings function as an outline to reveal a manuscript's organization. Avoid having only one subsection heading and subsection within a section, just as you would avoid in an outline. Use at least two subsection headings within any given section, or use none (e.g., in an outline, you could divide a section numbered I into a minimum of A and B sections; just an A section could not stand alone).

Regardless of the number of levels of subheading within a section, the heading structure for all sections follows the same top-down progression. Each section starts with the highest level of heading, even if one section may have fewer levels of subheading than another section. For example, the Method and Results sections of a paper may each have two levels of subheading, and the Discussion section may have only one level of subheading. There would then be three levels of heading for the paper overall: the section headings (Method, Results, and Discussion) and the two levels of subheading, as follows:

Method

Sample and Procedures

Measures

Perceived control.

Behavior and emotion.

Results

Analyses

Descriptive statistics.

Intraconstruct correlations.

Interconstruct correlations.

Unique Effects of Perceived Control on Behavior and Emotion

Motivational Profiles

Discussion

Limitations of the Study

Implications for Intervention

Conclusions

Common pattern

APA's heading style consists of five possible formatting arrangements, according to the number of levels of subordination. Each heading level is numbered (Level 1, Level 2, etc.), but the specific levels used are not necessarily consecutive. Follow the guidelines in the next section to select the proper heading style according to the levels of subordination within your paper.

If your paper has a complex organization, or if you find it difficult to follow APA heading style, you may submit an outline with your accepted manuscript for the copy editor to follow to ensure that your paper is organized as you envision.

The introduction to a manuscript does not carry a heading labeling it the introduction (the first part of a manuscript is assumed to be the introduction). Therefore if the introduction contains headings, the first heading and later equivalent headings within the section are assigned the highest level of heading (Level 1 for all but five-level papers).

Levels of Heading

The five levels of headings in APA journals are formatted as follows:

Wrong order! haha

CENTERED UPPERCASE HEADING ← Level 5

Centered Uppercase and Lowercase Heading ← Level 1

Centered, Italicized, Uppercase and Lowercase Heading ← Level 2

Flush Left, Italicized, Uppercase and Lowercase Side Heading ← Level 3

Indented, italicized, lowercase paragraph heading ending with a period. ← Level 4

The headings for an article using all five levels of heading would be formatted as follows:

EXPERIMENT 1: AN INTERVIEW VALIDATION STUDY

External Validation

Method

Participants

Sleep-deprived group.

Selecting the Levels of Heading

Find the section of your paper that breaks into the finest level of subordinate categories. Then use the guidelines that follow to determine the level, position, and arrangement of headings.

One Level. For a short article, one level of heading may be sufficient. In such cases, use only centered uppercase and lowercase headings (Level 1).

Two Levels. For many articles in APA journals, two levels of heading meet the requirements. Use Level 1 and Level 3 headings:

Method ← Level 1

Procedure ← Level 3

weird system

If the material subordinate to the Level 1 headings is short or if many Level 3 headings are necessary, indented, italicized lowercase paragraph headings (Level 4) may be more appropriate than Level 3 headings. (A Level 4 heading should apply to all text between it and the next heading, regardless of the heading level of the next heading.)

Three Levels. For some articles, three levels of heading are needed. Use Level 1, Level 3, and Level 4 headings.

when 3

In a *single-experiment study*, these three levels of heading may look like this:

Method ← Level 1

Apparatus and Procedure ← Level 3

Pretraining period. ← Level 4

In a *multiexperiment study*, these three levels of heading may look like this:

Experiment 2 ← Level 1

Method ← Level 3

Participants. ← Level 4

Four Levels. For many articles, particularly multiexperiment studies, monographs, and lengthy literature reviews, four levels of heading are needed. Use heading Levels 1 through 4:

Experiment 2 ← Level 1

Method ← Level 2

Stimulus Materials ← Level 3

Auditory stimuli. ← Level 4

Five Levels. Occasionally, an article requires five levels of heading. In such cases, subordinate all four levels above by introducing a Level 5 heading—a centered uppercase heading—above the other four (as shown previously in Levels of Heading, p. 27).

THE LITERATURE REVIEW: A FEW TIPS

This first section is from U Toronto Writing Center website.

What is a review of the literature?

A literature review is an account of what has been published on a topic by accredited scholars and researchers. Occasionally you will be asked to write one as a separate assignment. . ., but more often it is part of the introduction to an essay, research report, or thesis. In writing the literature review, your purpose is to convey to your reader what knowledge and ideas have been established on a topic, and what their strengths and weaknesses are. As a piece of writing, the literature review must be defined by a guiding concept (e.g., your research objective, the problem or issue you are discussing, or your argumentative thesis). It is not just a descriptive list of the material available, or a set of summaries.

Besides enlarging your knowledge about the topic, writing a literature review lets you gain and demonstrate skills in two areas:

1. **information seeking**: the ability to scan the literature efficiently, using manual or computerized methods, to identify a set of useful articles and books
2. **critical appraisal**: the ability to apply principles of analysis to identify unbiased and valid studies.

A literature review must do these things:

a. be organized around and related directly to the thesis or research question you are developing
b. synthesize results into a summary of what is and is not known
c. identify areas of controversy in the literature
d. formulate questions that need further research

Ask yourself questions like these:

1. What is the **specific thesis, problem, or research question** that my literature review helps to define?
2. What **type** of literature review am I conducting? Am I looking at issues of theory? methodology? policy? quantitative research (e.g. on the effectiveness of a new procedure)? qualitative research (e.g., studies)?
3. What is the **scope** of my literature review? What types of publications am I using (e.g., journals, books, government documents, popular media)? What discipline am I working in (e.g., nursing psychology, sociology, medicine)?
4. How good was my **information seeking**? Has my search been wide enough to ensure I've found all the relevant material? Has it been narrow enough to exclude irrelevant material? Is the number of sources I've used appropriate for the length of my paper?
5. Have I **critically analysed** the literature I use? Do I follow through a set of concepts and questions, comparing items to each other in the ways they deal with them? Instead of just listing and summarizing items, do I assess them, discussing strengths and weaknesses?
6. Have I cited and discussed studies **contrary** to my perspective?
7. Will the reader find my literature review **relevant, appropriate, and useful**?

NOTE: A literature review is a piece of **discursive prose**, not a list describing or summarizing one piece of literature after another. **It's usually a bad sign to see every paragraph beginning with the name of a researcher. Instead, organize the literature review into sections that present themes or identify trends, including relevant theory. You are not trying to list all the material published, but to synthesize and evaluate it according to the guiding concept of your thesis or research question.**

[Link to complete U Toronto guidelines, which includes more questions re: how to assess and describe articles you read: http://www.utoronto.ca/writing/litrev.html]

Here are additional tips, from the U of Wisconsin-Madison:

Think of the literature as having its own introduction, body and conclusion.

In the **introduction**, you should:

- Define or identify the general topic, issue, or area of concern, thus providing an appropriate context for reviewing the literature.

- Point out overall trends in what has been published about the topic; or conflicts in theory, methodology, evidence, and conclusions; or gaps in research and scholarship; or a single problem or new perspective of immediate interest.

In the **body** you should:

- Group research studies and other types of literature (reviews, theoretical articles, case studies, etc.) according to common denominators such as qualitative versus quantitative approaches, conclusions of authors, specific purpose or objective, chronology, etc.
- Summarize individual studies or articles with as much or as little detail as each merits according to its comparative importance in the literature, remembering that space (length) denotes significance.
- Provide the reader with strong "umbrella" sentences at beginnings of paragraphs, "signposts" throughout, and brief "so what" summary sentences at intermediate points in the review to aid in understanding comparisons and analyses. [In other words, use linking language and transitions, and clear topic sentences.]

In the **conclusion** you should:

- Summarize key contributions in relation to the focus you established in your introduction.
- Point out methodological flaws, gaps, or issues that relate to the work your project will undertake

[Link to complete U Wisconsin article: http://www.wisc.edu/writing/Handbook/ReviewofLiterature.html]

MODEL ABSTRACTS

From the *E-Journal of Applied Psychology*, Vol 4, No 2 (2008)

The Climate Sadness program: an open trial of Internet-based treatment for depression

Sarah Perini, Nickolai Titov, Gavin Andrews

think I read this before---

Abstract

This paper reports the results of an open trial of an Internet based clinician-assisted computerized cognitive behavioural treatment (CaCCBT) program for depression. Thirteen participants meeting Diagnostic and Statistical Manual of the American Psychiatric Disorder – 4th Edition (DSM-IV) criteria for Major Depression were recruited. Participants completed 6 on-line lessons and weekly homework assignments, received frequent email contact from a clinical psychologist, and participated in a moderated online discussion forum with other participants. Paired sample t-tests and effect sizes (Cohen's d) were calculated using an intention-to-treat design. Seventy seven percent of participants completed the 6 lessons during the 9 week program. The pre to post-treatment effect size on the Patient Health Questionnaire – 9 Item (PHQ-9) was 1.0. Participants found the Internet treatment program acceptable and satisfactory. Mean therapist time spent per patient during the program was 208 minutes. These encouraging results are consistent with previous literature indicating that Internet-based programs for depression combined with clinical guidance can result in clinically significant improvements in outcomes for patients. These data provide further support for the development of Internet-based treatment for common mental disorders.

Social Anxiety and the Internet: Positive and Negative Effects

Dennis Mazalin, Britt Klein

Abstract

The present study sought to partially replicate the Erwin et al. (2004) study of positive and negative Internet effects. The participants were 37 individuals who met the clinical criteria for social anxiety disorder. The Internet effects were explored in relation to the severity of social anxiety and the length of time spent online. The results both confirmed and disconfirmed aspects of the original Erwin et al. results, indicating both positive and negative Internet effects. The findings are discussed in relation to the contradictory research literature that has investigated social anxiety and emotional disturbance on the Internet.

From *Journal of Applied Social Psychology* Vol. 39 Issue 2

Development of an Organizational Diversity Needs Analysis (ODNA) Instrument

Molly J. Dahm*[1], Edwin P. Willems[†], John M. Ivancevich[†] and Daniel E. Graves[‡]
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[†] University of Houston
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ABSTRACT

Researchers have suggested that diversity is beneficial in organizational settings under conditions in which managers can manage it effectively. The goal of the current paper was to develop a general, theoretically anchored measure of diversity needs. Such an instrument could be used to evaluate the existing diversity climate in an organization. Once the climate is assessed, managers can, if necessary, develop, implement, and assess a customized training program to improve their institution's diversity-management practices. A two-study approach is used to examine, determine, and test an eight-dimension instrument, designated the Organizational Diversity Needs Analysis survey.

Sociodemographic Variations in Self-Reported Racism in a Community Sample of Blacks and Latino(a)s

Elizabeth Brondolo*[1], Danielle L. Beatty[†], Catherine Cubbin[‡], Melissa Pencille*, Susan Saegert[†], Robin Wellington*, Johnathan Tobin[§], Andrea Cassells[§] and Joseph Schwartz[¶]

. . .

ABSTRACT

This study investigated dimensions of socioeconomic status (SES) and self-reported racism among a convenience sample of 418 U.S.-born, Black and Latino(a) urban-dwelling adults. Predictors included indexes of individual and neighborhood SES. Self-reported racism was assessed with the Perceived Ethnic Discrimination Questionnaire–Community Version. Individuals at all levels of SES report racism, but the type of exposure varies by SES. Lower levels of SES predict higher levels of lifetime exposure to race-related stigmatization and threat/harassment, and more past-week discrimination. In contrast, higher levels of SES predict greater workplace discrimination. The findings highlight the importance of considering the complex ways in which SES and racism, 2 contributors to racial disparities in health, overlap and diverge.

literature review example

Social Movements as Extra-institutional Entrepreneurs: The Effect of Protests on Stock Price Returns

Brayden G King
Brigham Young University
Sarah A. Soule
Cornell University

abstract

Read 3/31

This paper uses social movement theory to examine one way in which secondary stakeholders outside the corporation may influence organizational processes, even if they are excluded from participating in legitimate channels of organizational change. Using data on activist protests of U.S. corporations during 1962–1990, we examine the effect of protests on abnormal stock price returns, an indicator of investors' reactions to a focal event. Empirical analysis demonstrates that protests are more influential when they target issues dealing with critical stakeholder groups, such as labor or consumers, and when generating greater media coverage. Corporate targets are less vulnerable to protest when the media has given substantial coverage to the firm prior to the protest event. Past media attention provides alternative information to investors that may contradict the messages broadcast by protestors.•

Hirschman (1970) was one of the first scholars to identify the means dissatisfied stakeholders use to gain influence inside the corporation. "Exit" takes resources (e.g., revenue) away from the firm as stakeholders seek other options. In contrast, "voice" involves an active effort to change the conditions that brought about dissatisfaction in the first place. Attempts to influence through exit, such as consumers switching to a different product, are ineffective when stakeholders constitute a disproportionately small share of the firm's base. In these situations, voice may be the only real option for influence-seeking stakeholders.

Hirschman's (1970) ideas foreshadow recent scholarship at the nexus of social movements and organizational studies, which emphasizes social movements' collective ability to initiate institutional change via the expression of voice (e.g., Davis et al., 2005). Some scholars in this area have examined how movements challenge institutionalized organizational arrangements and offer alternative organizing logics. For example, it has been demonstrated that movements can influence organizational decision makers to change policies related to employee benefits (Scully and Segal, 2002; Raeburn, 2004) or unionization (Manheim, 2001) and to adopt recycling programs (Lounsbury, 2001; Lounsbury, Ventresca, and Hirsch, 2003). Others have examined how social movements can be agents of change in organizational fields by offering new solutions to collective problems or by creating competing organizational forms that undermine the field's stability (Hoffman, 1999; Schneiberg, 2002; Greenwood, Suddaby, and Hinings, 2002; Rao, Monin, and Durand, 2003). Finally, other research has examined how corporate elites can organize social movements to influence state policies related to corporate interests (Davis and Thompson, 1994; Vogus and Davis, 2005). Thus social movement theory's contribution to organizational studies has been to provide an explanation for the origin of change in highly institutionalized settings.

Summary

Much of this scholarship examines how social movement actors within organizations and industries challenge institutions (e.g., Zald and Berger, 1978; Lounsbury, 2001; Scully and Segal, 2002; Raeburn, 2004), but we still know very little

0001-8392/07/5203-0413/$3.00.

•

Grants from the National Science Foundation (SBR-9709337, SBR-9709356 and SES 9874000) and from the University of Arizona Vice-President for Research Small Grants Program supported this research. We thank Mike Lounsbury, Martin Ruef, Huggy Rao, Teppo Felin, Jeff Dyer, Marie Cornwall, Fabio Rojas, Ezra Zuckerman, John Howe, Peter Klein, and Marc Schneiberg for their valuable feedback. We offer special thanks to the Consulting Editor Mauro Guillén and three anonymous reviewers for their helpful suggestions. We would also like to acknowledge Doug McAdam, John McCarthy, and Susan Olzak for their role in collecting the protest data used in this paper.

about how movements external to the organization attempt to influence organizational-level processes, policies, and procedures. That is, most research has focused on the insiders' paths to legitimate organizational change and has largely ignored the most provocative cases of outsiders' influence on the corporation. By external or outsider movements, we mean those collective attempts to influence corporate change that are initiated by the secondary stakeholders of a corporation.

Where research lacks

In this paper, we address the lack of attention to outsiders' influence on corporations by examining the effect of social movement protests on firms' stock prices. Theoretically, this allows us to examine one of the most salient ways that outsiders can initiate change. By shaping investors' confidence in a corporation, activists influence corporate decision makers. If it can be demonstrated that protest is a viable form of corporate influence, we can make a strong case for Hirschman's (1970) voice as an avenue of corporate influence, even when expressed by secondary stakeholders. While past research has demonstrated that boycotts influence stock price (Pruitt and Friedman, 1986; Pruitt, Wei, and White, 1988), we still know little about the effect that protests (although see Epstein and Schnietz, 2002), in general, have on stock price, which kinds of protests have an effect, and what makes some corporations more vulnerable to protests.

how this paper will fix

another thread of research

Social movements can play an important role as extra-institutional entrepreneurs, external agents of change that attempt to reconfigure the meaning system and institutional logics on which a dominant system of authority is based. We use the term extra-institutional entrepreneurs to highlight the distinction between social movements and other institutional entrepreneurs whose purpose is to bring about change but who are also insiders (e.g., employees) to the corporation (Leblebici et al., 1991; Fligstein, 1997). Social movements can be an important instigator of institutional change, even when insiders oppose this change. Understanding the role of social movements as extra-institutional agents of change also helps us to better understand the stakeholder environment of the corporation. Although there has been much discussion of a stakeholder theory of the firm (e.g., Donaldson and Preston, 1995), we know very little about how secondary stakeholders, like activist groups, affect organizational policymaking (although see Baron, 2001, 2003; Schneper and Guillén, 2004). Finding evidence for social movement influence through protest makes a strong case for the potential efficacy of secondary stakeholders, given the radical, extra-institutional nature of protest.

about what they are studying

SOCIAL MOVEMENTS AND CORPORATE TARGETS: THE USE OF PROTEST DEMONSTRATIONS

Social movements emerge proactively as a collectively expressed grievance to a perceived social problem or reactively to a threatened change to a way of life (Tilly, 1978). Rejected by the dominant standards of some portion of society, social movements adopt "oppositional identities" that pit their interests against power-holders in mainstream institu-

Read 3/31

Seems like a repeat of 15.665

Essentials of Negotiation

fourth edition

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CHAPTER 1

The Nature of Negotiation

"That's it! I've had it! This car is dead!" screamed Chang Yang, pounding on the steering wheel and kicking the door shut on his 10-year-old Toysun sedan. The car had refused to start again, and Chang was going to be late for class (again)! Chang wasn't doing well in that management class, and he couldn't afford to miss any more classes. Recognizing that it was finally time to do something about the car, which had been having numerous mechanical problems for the last three months, Chang decided he would trade the Toysun in for another used car, one that would hopefully get him through graduation. After classes that day, he got a ride to the nearby shopping area, where there were several repair garages and used car lots. He knew almost nothing about cars, and didn't think he needed to—all he needed was reliable transportation to get him through the next 18 months.

A major international airline company is close to bankruptcy. The fear of terrorism, a number of new "budget-fare" airlines, and rising costs for fuel have all put the airline under massive economic pressure. The company seeks $800 million in wage and benefit cuts from the pilots' union, the third round of cuts in two years, in order to head off the bankruptcy. Rebuffed by the chief union negotiator for the pilots, the company seeks to go directly to the officers of the Air Line Pilots Association to discuss the cuts. If the pilots do not agree to concessions, it is unlikely that other unions—flight attendants, mechanics, and so on—will agree, and bankruptcy will be inevitable.

Janet and Jocelyn are roommates. They share a one-bedroom apartment in a big city where they are both working. Janet, an accountant, has a solid job with a good company, but she has decided that it is time to go back to school to get her MBA. She has enrolled in Big City University's evening MBA program and is now taking classes. Jocelyn works for an advertising company and is on the fast track. Her job not only requires a lot of travel, but also requires a lot of time socializing with clients. The problem is that when Janet is not in evening class, she needs the apartment to read and study and has to have quiet to get her work done. However, when Jocelyn is at the apartment, she talks a lot on the phone, brings friends home for dinner, and is either getting ready to go out for the evening or coming back in very late (and noisily!). Janet has had enough of this disruption and is about to confront Jocelyn.

Thousands of demonstrators opposed to the policies of a nation's government seek to protest a national political convention that will nominate the government's leader to run for reelection. City police forbid protesters from demonstrating near the convention site and authorize a protest location under a crumbling urban expressway, half a mile

Boston

away from the convention. In response, demonstration organizers request permission to hold a rally in one of the city's major metropolitan parks. The city attempts to ban the demonstration because that park was recently relandscaped at a major expense to the city, and it fears the mass of demonstrators will ruin the work. Each side attempts negotiation but also pursues complex legal maneuvers to get the courts on their side.

In pursuit of Middle East peace and the establishment of a permanent Palestinian state, the leader of the State of Israel declares his intention to withdraw from Gaza. Such withdrawal would mean abandoning Israeli housing settlements that the government has sponsored in the Gaza territory. To accommodate the Israeli settlers now living in these settlements, the government authorizes building new housing sites near Jerusalem, buildings that would encroach on land currently held by Palestinians. Each side accuses the other of bad faith negotiating: The Palestinians say the Israelis are violating a jointly developed, two-year-old "road map for peace," which specified that existing settlements would not be extended; the Israelis say the continued Palestinian violence and terrorism against Israelis shattered that road map long ago. Terrorism, violence, and settlement construction continue unabated.

Ashley Johnson is one of the most qualified recruits this year from a top-25 business school. She is delighted to have secured a second interview with a major consumer goods company, which has invited her to its headquarters city and put her up in a four-star hotel that is world-renowned for its quality facilities and service. After getting in late the night before due to flight delays, she wakes at 7:30 AM to get ready for an 8:00 AM breakfast meeting with the senior company recruiter. She steps in the shower, grabs the water control knob to turn it, and the knob falls off in her hand! There is no water in the shower at all; apparently, repairmen started a repair job on it, turned the water off somewhere, and left the job unfinished. Ashley panics at the thought of how she is going to deal with this crisis and look good for her breakfast meeting in 30 minutes.

Do these incidents look and sound familiar? These are all examples of negotiation—negotiations that are about to happen, are in the process of happening, or have happened in the past and created consequences for the present. And they all serve as examples of the problems, issues, and dynamics that we will address throughout this book.

People negotiate all the time. Friends negotiate to decide where to have dinner. Children negotiate to decide which television program to watch. Businesses negotiate to purchase materials and to sell their products. Lawyers negotiate to settle legal claims before they go to court. The police negotiate with terrorists to free hostages. Nations negotiate to open their borders to free trade. Negotiation is not a process reserved only for the skilled diplomat, top salesperson, or ardent advocate for an organized lobby; it is something that everyone does, almost daily. Although the stakes are not usually as dramatic as peace accords or large corporate mergers, everyone negotiates; sometimes people negotiate for major things like a new job, other times for relatively minor things, such as who will wash the dishes.

Negotiations occur for several reasons: (1) to agree on how to share or divide a limited resource, such as land, or property, or time; (2) to create something new that neither party could do on his or her own, or (3) to resolve a problem or dispute between the parties. Sometimes people fail to negotiate because they do not recognize that they are in a negotiation situation. By choosing options other than negotiation, they may fail to achieve their goals, get what they need, or manage their problems as smoothly as they might like to. People may also recognize the need for negotiation but do poorly because they misunderstand the process and do not have good negotiating skills. After reading this book, we hope you will be thoroughly prepared to recognize negotiation situations; understand how negotiation works; know how to plan, implement, and complete successful negotiations; and, most importantly, be able to maximize your results.

A Few Words about Our Style and Approach

Before we begin to dissect the complex social process known as negotiation, we need to say several things about how we will approach this subject.

First, we will be careful about how we use terminology in this book. For most people, *bargaining* and *negotiation* mean the same thing; however, we will be quite distinctive in the way we use the two words. We will use the term *bargaining* to describe the competitive, win-lose situations such as haggling over price that happens at a yard sale, flea market, or used car lot; we will use the term *negotiation* to refer to win-win situations such as those that occur when parties are trying to find a mutually acceptable solution to a complex conflict.

Second, many people assume that the "heart of negotiation" is the give-and-take process used to reach an agreement. While that give-and-take process is extremely important, negotiation is a very complex social process; many of the most important factors that shape a negotiation result do not occur during the negotiation; they occur *before* the parties start to negotiate, or shape the context *around* the negotiation. In the first few chapters of the book, we will examine why people negotiate, the nature of negotiation as a tool for managing conflict, and the primary give-and-take processes by which people try to reach agreement. In the remaining chapters, we examine some of the many ways that the differences in substantive issues, the people involved, the processes they follow, and the context in which negotiation occurs enrich the complexity of the dynamics of negotiation. Such a repeat!

Third, our insights into negotiation are drawn from three sources. The first is our experience as negotiators ourselves and the rich number of negotiations that occur every day in our own lives and in the lives of people around the world. The second source is the media—television, radio, newspaper, magazine, and Internet—that report on actual negotiations every day. We will use quotes and examples from the media to highlight key points, insights, and applications throughout the book. Finally, the third source is the wealth of social science research that has been conducted on numerous aspects of negotiation. This research has been conducted for over 50 years in the fields of economics, psychology, political science, communication, labor relations, law, sociology, and anthropology. Each discipline approaches negotiation differently. Like the parable of the blind men who are attempting to describe the elephant by touching and feeling different parts of the animal, each social science discipline has its own theory and methods for studying elements of negotiation, and each tends to emphasize some parts and ignore others. Thus, the same negotiation events and outcome may be examined simultaneously from several different perspectives.[1] We draw from all these research traditions in our approach to negotiation. When we need to acknowledge the authors of a major theory or set of research findings, we will use an endnote; complete references for that work can be found in the bibliography at the end of the book.

We began this chapter with several examples of negotiations—future, present, and past. To further develop the reader's understanding of the foundations of negotiation, we will develop a story about a husband and wife—Joe and Sue Carter—and a not-so-atypical day in their lives. In this day, they face the challenges of many major and minor negotiations. We will then use that story to highlight three important themes:

1. The definition of negotiation and the basic characteristics of negotiation situations.
2. An understanding of interdependence, the relationship between people and groups that most often leads them to need to negotiate.
3. The definition and exploration of the dynamics of conflict and conflict management processes, which will serve as a backdrop for different ways that people approach and manage negotiations.

Joe and Sue Carter

The day started early, as usual. Over breakfast, Sue Carter raised the question of where she and her husband, Joe, would go for their summer vacation. She wanted to sign up for a tour of the Far East being sponsored by her college's alumni association. However, two weeks on a guided tour with a lot of other people he barely knew was not what Joe had in mind. He needed to get away from people, crowds, and schedules, and he wanted to charter a sailboat and cruise the New England coast. The Carters had not argued (yet), but it was clear they had a real problem here. Some of their friends handled problems like this by taking separate vacations. With both of them working full-time, though, Joe and Sue did agree that they would take their vacation together.

Moreover, they were still not sure whether their teenage children—Tracy and Ted—would go with them. Tracy really wanted to go to a gymnastics camp, and Ted wanted to stay home and do yard work in the neighborhood so he could get in shape for the football team and buy a motor scooter with his earnings. Joe and Sue couldn't afford summer camp and a major vacation, let alone deal with the problem of who would keep an eye on the children while they were away.

As Joe drove to work, he thought about the vacation problem. What bothered Joe most was that there did not seem to be a good way to manage the conflict productively. With some family conflicts, they could compromise but, given what each wanted this time, a simple compromise didn't seem obvious. At other times they would flip a coin or take turns—that might work for choosing a restaurant (Joe and Ted like steak houses, Sue and Tracy prefer Chinese), but it seemed unwise in this case because of how much money was involved and how important vacation time was to them. In addition, flipping a coin might make someone feel like a loser, an argument could start, and in the end nobody would really feel satisfied.

Walking through the parking lot, Joe met his company's purchasing manager, Ed Laine. Joe was the head of the engineering design group for MicroWatt, a manufacturer of small electric motors. Ed reminded Joe that they had to settle a problem created by the engineers in Joe's department: The engineers were contacting vendors directly rather than going through MicroWatt's purchasing department. Joe knew that purchasing wanted all contacts with a vendor to go through them, but he also knew that his engineers badly needed technical information for design purposes and that waiting for the information to come through purchasing slowed things considerably. Ed Laine was aware of Joe's views about this problem, and Joe thought the two of them could probably find some way to resolve it if they really sat down to work on it. Joe and Ed were also both aware that upper management expected middle managers to settle differences among themselves; if this problem "went upstairs" to senior management, it would make both of them look bad.

Purchasing silly

Shortly after reaching his desk, Joe received a telephone call from an automobile salesman with whom he had been talking about a new car. The salesman asked whether Sue wanted to test-drive it. Joe wasn't quite sure that Sue would go along with his choice; Joe had picked out a sporty luxury import, and he expected Sue to say it was too expensive. Joe was pleased with the latest offer the salesman had made on the price but thought he might still get a few more concessions out of him, so he introduced Sue's likely reluctance about the purchase, hoping that the resistance would put pressure on the salesman to lower the price and make the deal "unbeatable."

As soon as Joe hung up the phone, it rang again. It was Sue, calling to vent her frustration to Joe over some of the procedures at the local bank where she worked as a senior loan officer. Sue was frustrated working for an old "family-run" bank that was not very automated, heavily bureaucratic, and slow to respond to customer needs. Competitor banks were approving certain types of loans within three hours while Sue's bank still took a week. Sue had just lost landing two big new loans because of the bank's slowness and bureaucratic procedures, and this was becoming a regular occurrence. But whenever she tried to discuss the situation with the bank's senior management, she was met with resistance and a lecture on the importance of the bank's "traditional values."

Most of Joe's afternoon was taken up by the annual MicroWatt budget planning meeting. Joe hated these meetings. The people from the finance department came in and arbitrarily cut everyone's figures by 30 percent, and then all the managers had to argue endlessly to try to get some of their new-project money reinstated. Joe had learned to work with a lot of people, some of whom he did not like very much, but these people from finance were the most arrogant and arbitrary number crunchers imaginable. He could not understand why the top brass did not see how much harm these people were doing to the engineering group's research-and-development efforts. Joe considered himself a reasonable guy, but the way these people acted made him feel like he had to draw the line and fight it out for as long as it took.

Sando Lile Darmcon

In the evening, Sue and Joe attended a meeting of their town's Conservation Commission, which, among other things, was charged with protecting the town's streams, wetlands, and nature preserves. Sue is a member of the Conservation Commission, and Sue and Joe both strongly believe in sound environmental protection and management. This evening's case involved a request by a real estate development firm to drain a swampy area and move a small creek to build a new regional shopping mall. All projections showed that the new shopping mall would attract jobs and revenue to the area and considerably increase the town's treasury. The new mall would keep more business in the community and discourage people from driving 15 miles to the current mall, but opponents—a coalition of local conservationists and businessmen—were concerned that it would significantly hurt the downtown business district and do major harm to the natural wetland and its wildlife. The debate raged for three hours and the commission agreed to continue hearings the following week.

As Joe and Sue drove home from the council meeting, they discussed the things they had been involved in that day. Each privately reflected that life is kind of strange—sometimes things go very smoothly and other times things seem much too complicated. As they went to sleep later, they each thought about how they might have approached certain situations differently during the day and were thankful they had a relationship where they could discuss things openly with each other. But they still didn't know what they were going to do about that vacation.

Characteristics of a Negotiation Situation

The Joe and Sue Carter story highlights the variety of situations that can be handled by negotiation. Any of us might encounter one or more of these situations over the course of a few days or weeks. Negotiation situations have fundamentally the same characteristics, whether they are peace negotiations between countries at war, business negotiations between buyer and seller or labor and management, or an angry guest trying to figure out how to get a hot shower before a critical interview. Those who have written extensively about negotiation argue that there are several characteristics common to all negotiation situations.[2]

1. There are two or more parties—that is, two or more individuals, groups, or organizations. Although people can "negotiate" with themselves—as when someone debates whether to spend a Saturday afternoon studying, playing tennis, or going to the football game—we consider negotiation as a process *between* individuals, within groups, and between groups. In the Carter story, Joe negotiates with his wife, the purchasing manager, and the auto salesman, and Sue negotiates with her husband, the senior management at the bank, and the Conservation Commission, among others. Both still face an upcoming negotiation with the children.

2. There is a conflict of needs and desires between two or more parties—that is, what one wants is not necessarily what the other one wants—and the parties must search for a way to resolve the conflict. Joe and Sue face negotiations over vacations, management of their children, budgets, automobiles, company procedures, and community practices for issuing building permits and preserving natural resources, among others.

3. The parties negotiate by *choice!* That is, they negotiate because they think they can get a better deal by negotiating than by simply accepting what the other side will voluntarily give them or let them have. Negotiation is largely a voluntary process. We negotiate because we think we can improve our outcome or result, compared with not negotiating or simply accepting what the other side offers. It is a strategy pursued by choice; seldom are we required to negotiate. There are times to negotiate and times not to negotiate (see Box 1.1 for examples of when we should not negotiate). Our experience is that most individuals in Western culture do not negotiate enough—that is, we assume a price or situation is nonnegotiable and don't even bother to ask or to make a counteroffer!

4. When we negotiate we expect a "give-and-take" process that is fundamental to the definition of negotiation itself. We expect that both sides will modify or move away from their opening statements, requests, or demands. Although both parties may at first argue strenuously for what they want—each pushing the other side to move first—ultimately both sides will modify their opening position in order to reach an agreement. This movement may be toward the "middle" of their positions, called a compromise. Truly creative negotiations may not require

When You Shouldn't Negotiate — BOX 1.1

There are times when you should avoid negotiating. In these situations, stand your ground and you'll come out ahead.

When you'd lose the farm:

If you're in a situation where you could lose everything, choose other options rather than negotiate.

When you're sold out:

When you're running at capacity, don't deal. Raise your prices instead.

When the demands are unethical:

Don't negotiate if your counterpart asks for something you cannot support because it's illegal, unethical, or morally inappropriate. When your character or your reputation is compromised, you lose in the long run.

When you don't care:

If you have no stake in the outcome, don't negotiate. You have everything to lose and nothing to gain.

When you don't have time:

When you're pressed for time, you may choose not to negotiate. If the time pressure works against you, you'll make mistakes, and you may fail to consider the implications of your concessions. When under the gun, you'll settle for less than you could otherwise get.

When they act in bad faith:

Stop the negotiation when your counterpart shows signs of acting in bad faith. If you can't trust their negotiating, you can't trust their agreement. In this case, negotiation is of little or no value. Stick to your guns and cover your position, or discredit them.

When waiting would improve your position:

Perhaps you'll have a new technology available soon. Maybe your financial situation will improve. Another opportunity may present itself. If the odds are good that you'll gain ground with a delay, wait.

When you're not prepared:

If you don't prepare, you'll think of all your best questions, responses, and concessions on the way home. Gathering your reconnaissance and rehearsing the negotiation will pay off handsomely. If you're not ready, just say "no."

Source: J. C. Levinson, M. S. A. Smith, and O. R. Wilson, *Guerrilla Negotiating: Unconventional Weapons and Tactics to Get What You Want* (New York: John Wiley, 1999), pp. 22–23. This material is used by permission of John Wiley & Sons, Inc.

BOX 1.2 Sign in a New York Deli

"For those of you who need to haggle over the price of your sandwich, we will gladly raise the price so we can give you a discount!"

compromise, however; instead the parties may invent a solution that meets the objectives of *all* parties. Of course, if the parties do NOT consider it a negotiation, then they don't necessarily expect to modify their position and engage in this give and take (see Box 1.2).

5. The parties prefer to negotiate and search for agreement rather than to fight openly, have one side dominate and the other capitulate, permanently break off contact, or take their dispute to a higher authority to resolve it. Negotiation occurs when the parties prefer to invent their own solution for resolving the conflict, when there is no fixed or established set of rules or procedures for how to resolve the conflict, or when they choose to bypass those rules. Organizations and systems invent policies and procedures for addressing and managing those procedures. Video rental stores have a policy for what they should charge if a rental is kept too long. Normally, people just pay the fine. They might be able to negotiate a fee reduction, however, if they have a good excuse for why the video is being returned late. Similarly, attorneys negotiate or plea-bargain for their clients who would rather be assured of a negotiated settlement than take their chances with a judge and jury in the courtroom. Similarly, the courts may prefer to negotiate as well to clear the case off the docket and assure some punishment. In the Carter story, Joe pursues negotiation rather than letting his wife decide where to spend the vacation; pressures the salesman to reduce the price of the car, rather than paying the quoted price; and argues with the finance group about the impact of the budget cuts, rather than simply accepting them without question. Sue uses negotiation to try to change the bank's loan review procedures rather than accepting the status quo, and she works to change the shopping mall site plan to make conservationists and businesses happy, rather than letting others decide it or watch it go to court.

6. Successful negotiation involves the management of *tangibles* (e.g., the price or the terms of agreement) and also the resolution of *intangibles*. Intangible factors are the underlying psychological motivations that may directly or indirectly influence the parties during a negotiation. Some examples of intangibles are (1) the need to "win," beat the other party, or avoid losing to the other party; (2) the need to look "good," "competent," or "tough" to the people you represent; (3) the need to defend an important principle or precedent in a negotiation; and (4) the need to appear "fair," or "honorable" or to protect one's reputation. Intangibles are often rooted in personal values and emotions. Intangible factors can have an enormous influence on negotiation processes and outcomes; it is almost impossible to ignore intangibles because they affect our judgment about what is fair, or right, or appropriate in the resolution of the tangibles. For example, Joe may not want to make Ed Laine angry about the purchasing problem because he needs Ed's support in the upcoming budget negotiations, but Joe also doesn't want to lose face to his engineers, who expect him to support them.

Thus, for Joe, the important intangibles are preserving his relationship with Ed Laine and looking "tough" to his engineers.

Interdependence

One of the key characteristics of a negotiation situation is that the parties need each other in order to achieve their preferred objectives or outcomes. That is, either they *must* coordinate with each other to achieve their own objectives, or they *choose* to work together because the possible outcome is better than they can achieve by working on their own. When the parties depend on each other to achieve their own preferred outcome they are *interdependent.*

Most relationships between parties may be characterized in one of three ways: independent, dependent, or interdependent. *Independent* parties are able to meet their own needs without the help and assistance of others; they can be relatively detached, indifferent, and uninvolved with others. *Dependent* parties must rely on others for what they need; since they need the help, benevolence, or cooperation of the other, the dependent party must accept and accommodate to that provider's whims and idiosyncrasies. For example, if an employee is totally dependent on an employer for a job and salary, the employee will have to either do the job as instructed and accept the pay offered, or do without. *Interdependent* parties, however, are characterized by interlocking goals—the parties need each other in order to accomplish their objectives. For instance, in a project management team, no single person could complete a complex project alone; the time limit is usually too short, and no individual has all the skills or knowledge to complete it. For the group to accomplish its goals, each person needs to rely on the other project team members to contribute their time, knowledge, and resources and to synchronize their efforts. Note that having interdependent goals does not mean that everyone wants or needs exactly the same thing. Different project team members may need different things, but they must work together for each to accomplish their goals. This mix of convergent and conflicting goals characterizes many interdependent relationships.

Types of Interdependence Affect Outcomes

The interdependence of people's goals, and the *structure* of the situation in which they are going to negotiate, strongly shapes negotiation processes and outcomes. When the goals of two or more people are interconnected so that only one can achieve the goal—such as running a race in which there will be only one winner—this is a competitive situation, also known as a *zero-sum*, or *distributive*, situation, in which "individuals are so linked together that there is a negative correlation between their goal attainments."[3] Zero-sum, or distributive, situations are also present when parties are attempting to divide a limited or scarce resource, such as a pot of money, a fixed block of time, and the like. To the degree that one person achieves his or her goal, the other's goal attainment is blocked. In contrast, when parties' goals are linked so that one person's goal achievement helps others to achieve their goals, it is a *mutual-gains* situation, also known as a *non-zero-sum* or *integrative* situation, where there is a positive correlation between the goal attainments of both parties. If one person is a great music composer and the other is a great writer of lyrics, they can create a wonderful Broadway musical hit together. The music and words

BOX 1.3 The Used Car

"Hey, Paul, would you come on over to my place a little before three?" Orlo asked his neighbor during a phone call. "I've got someone coming over to look at the old Cadillac, and I need some competition . . . just act interested."

When the prospect showed up, he saw two men poking around under the hood. Orlo greeted him, and introduced him to Paul who glanced up and grunted. After a quick tour of the car, the prospect was obviously interested. "You mind if I take it for a spin?" he ventured. Orlo looked at Paul. Paul shrugged his shoulders, "Sure. Remember, I was here first." The prospect returned, impressed with the roominess and comfortable ride. "OK, how much do you want?"

Orlo quoted the price listed in the newspaper, and Paul objected, "Hey!"

The prospect stuck out his hand. "I'll take it!"

Orlo looked sheepishly at Paul and shook the now-buyer's hand.

After the new owner left, Paul said, "I can't believe that he paid you that much for that old car!"

Source: Leigh Steinberg, *Winning with Integrity* (New York: Random House, 1998), p. 47.

Signaling

may be good separately, but fantastic together. To the degree that one person achieves his or her goal, the other's goals are not necessarily blocked, and may in fact be significantly enhanced. The strategy and tactics that accompany each type of situation are discussed further in the section "Value Claiming and Value Creation" and in Chapters 2 and 3.

Alternatives Shape Interdependence

We noted at the beginning of this section that parties choose to work together because the possible outcome is better than what may occur if they do not work together. Evaluating interdependence therefore also depends heavily on the desirability of *alternatives* to working together. Roger Fisher, William Ury, and Bruce Patton, in their popular book *Getting to Yes: Negotiating Agreement without Giving In*, stress that "whether you should or should not agree on something in a negotiation depends entirely upon the attractiveness to you of the best available alternative."[4] They call this alternative a BATNA (Best Alternative to a Negotiated Agreement) and suggest that negotiators need to understand their own BATNA and the other party's BATNA. The value of a person's BATNA is always relative to the possible settlements available in the current negotiation. A BATNA may offer independence, dependence, or interdependence with someone else. A student who is a month away from graduation and has only one job offer at a salary far lower than he hoped has the choice of accepting that job offer or unemployment; there is little chance that he is going to influence the company to pay him much more than their starting offer. A student who has two offers has a choice between two future interdependent relationships; not only does he have a choice, but he can probably use each job offer to attempt to improve the agreement by playing the employers off against each other. Remember that every possible interdependency has an alternative; negotiators can always say "no" and walk away, although the alternative might not be a very good one. See Box 1.3 for a lesson on how one party manipulates the perception of his possible BATNA to get the other to agree. We will further discuss the role and use of BATNAs in Chapters 2, 3, 4, and 7.

Mutual Adjustment

When parties are interdependent, they have to find a way to resolve their differences. Both parties can influence the other's outcomes and decisions, and their own outcomes and decisions can be influenced by the other.[5] This mutual adjustment continues throughout the negotiation as both parties act to influence the other.[6] It is important to recognize that negotiation is a process that transforms over time, and mutual adjustment is one of the key causes of the changes that occur during a negotiation.[7]

Let us return to Sue Carter's job in the small community bank. Rather than continuing to have her loans be approved late, which means she loses the loan and doesn't qualify for bonus pay, Sue is thinking about leaving the small bank and taking a job with Intergalactic Bank in the next city. Her prospective manager, Max, thinks Sue is a desirable candidate for the position and is ready to offer her the job. Max and Sue are now attempting to establish Sue's salary. The job description announced the salary as "competitive." After talking with her husband Joe and looking at statistics on bank loan officers' pay in the state, Sue identified a salary below which she will not work ($50,000) and hopes she might get considerably more. But because Intergalactic Bank has lots of job applicants and is a very desirable employer in the area, Sue has decided not to state her minimally acceptable salary; she suspects that the bank will pay no more than necessary and that her minimum would be accepted quickly. Moreover, she knows that it would be difficult to raise the level if it should turn out that $50,000 was considerably below what Max would pay. Sue has thought of stating her ideal salary ($65,000), but she suspects that Max will view her as either presumptuous or rude for requesting that much. Max might refuse to hire her, or even if they agreed on salary, Max would have formed an impression of Sue as a person with an inflated sense of her own worth and capabilities.

Let's take a closer look at what is happening here. Sue is making her decision about an opening salary request based in part on what bank loan officers are paid in the area, but also very much on how she anticipates Max will react to her actions. Sue recognizes that her actions will affect Max. Sue also recognizes that the way Max acts toward her in the future will be influenced by the way her actions affect him now. As a result, Sue is assessing the indirect impact of her behavior on herself. Further, she also knows that Max is probably alert to this and will look upon any statement by Sue as reflecting a preliminary position on salary rather than a final one. To counter this expected view, Sue will try to find some way to state a proposed salary that is higher than her minimum, but lower than her "dream" salary offer. Sue is choosing among opening requests with a thought not only to how they will affect Max but also to how they will lead Max to act toward Sue. Further, Sue knows that Max believes she will act in this way and makes her decision on the basis of this belief.

The reader may wonder if people really pay attention to all these layers of nuance and complexity or plot in such detail about their negotiation with others. Certainly people don't do this most of the time, or they would likely be frozen in inactivity while they tried to puzzle through all the possibilities. However, this level of thinking can help anticipate the possible ways negotiations might move as the parties move, in some form of mutual adjustment, toward agreement. The effective negotiator needs to understand how people will adjust and readjust, and how the negotiations might twist and turn, based on one's own moves and the others' responses.

It might seem that the best strategy for successful mutual adjustment to the other is grounded in the assumption that the more information one has about the other person, the better. There is the possibility, however, that too much knowledge only confuses.[8] For example, suppose Sue knows the average salary ranges for clerical, supervisory, and managerial positions for banks in her state and region. Does all this information help Sue determine her actions or does it only confuse things? In fact, even with all of this additional information, Sue may still not have reached a decision about what salary she should be paid, other than a minimum figure below which she will not go. This state of affairs is typical to many negotiations. Both parties have defined their outer limits for an acceptable settlement (how high or low they are willing to go), but within that range, neither has determined what the preferred number should be. The parties need to exchange information, attempt to influence each other, and problem solve. They must work toward a solution that takes into account each person's requirements and, hopefully, optimize the outcomes for both.[9]

Mutual Adjustment and Concession Making

Negotiations often begin with statements of opening positions. Each party states its most preferred settlement proposal, hoping that the other side will simply accept it, but not really believing that a simple "yes" will be forthcoming from the other side (remember our key definitional element of negotiation as the expectation of give-and-take). If the proposal isn't readily accepted by the other, negotiators begin to defend their own initial proposals and critique the others' proposals. Each party's rejoinder usually suggests alterations to the other party's proposal and perhaps also contains changes to his or her own position. When one party agrees to make a change in his or her position, a concession has been made.[10] Concessions restrict the range of options within which a solution or agreement will be reached; when a party makes a concession, the *bargaining range* (the difference between the preferred acceptable settlements) is further constrained. For instance, Sue would like to get a starting salary of \$65,000, but she scales her request down to \$60,000, thereby eliminating all possible salary options above \$60,000. Before making any concessions to a salary below \$60,000, Sue probably will want to see some willingness on the part of the bank to improve their salary offer.

Two Dilemmas in Mutual Adjustment

Deciding how to use concessions as signals to the other side and attempting to read the signals in the other's concessions are not easy tasks, especially when there is little trust between negotiators. Two of the dilemmas that all negotiators face, identified by Harold Kelley,[11] help explain why this is the case. The first dilemma, the *dilemma of honesty*, concerns how much of the truth to tell the other party. (The ethical considerations of these dilemmas are discussed in Chapter 9.) On the one hand, telling the other party everything about your situation may give that person the opportunity to take advantage of you. On the other hand, not telling the other person anything about your needs and

The Importance of Aligning Perceptions — BOX 1.4

Having information about your negotiation partner's perceptions is an important element of negotiation success. When your expectations of a negotiated outcome are based on faulty information, it is likely that the other party will not take you seriously. Take, for example, the following story told to one of the authors:

> At the end of a job interview, the recruiter asked the enthusiastic MBA student, "And what starting salary were you looking for?"
>
> The MBA candidate replied, "I would like to start in the neighborhood of \$125,000 per year, depending on your benefits package."
>
> The recruiter said, "Well, what would you say to a package of five weeks' vacation, 14 paid holidays, full medical and dental coverage, company matching retirement fund up to 50 percent of your salary, and a new company car leased for your use every two years . . . say, a red Corvette?"
>
> The MBA sat up straight and said, "Wow! Are you kidding?"
>
> "Of course," said the recruiter. "But you started it."

desires may lead to a stalemate. Just how much of the truth should you tell the other party? If Sue told Max that she would work for as little as \$50,000 but would like to start at \$60,000, it is quite possible that Max would hire her for \$50,000 and allocate the extra money that he might have paid her elsewhere in the budget.[12] If, however, Sue did not tell Max any information about her salary aspirations, then Max would have a difficult time knowing Sue's aspirations and what she would consider an attractive offer.

Kelley's second dilemma is the *dilemma of trust*: how much should negotiators believe what the other party tells them? If you believe everything the other party says, then he or she could take advantage of you. If you believe nothing that the other party says, then you will have a great deal of difficulty in reaching an agreement. How much you should trust the other party depends on many factors, including the reputation of the other party, how he or she treated you in the past, and a clear understanding of the pressures on the other in the present circumstances. If Max told Sue that \$52,000 was the maximum he was allowed to pay her for the job without seeking approval "from above," should Sue believe him or not? As you can see, sharing and clarifying information is not as easy as it first appears.

The search for an optimal solution through the processes of giving information and making concessions is greatly aided by trust and a belief that you're being treated honestly and fairly. Two efforts in negotiation help to create such trust and beliefs—one is based on perceptions of outcomes and the other on perceptions of the process. Outcome perceptions can be shaped by managing how the receiver views the proposed result. If Max convinces Sue that a lower salary for the job is relatively unimportant given the high potential for promotion associated with the position, then Sue may feel more comfortable accepting a lower salary. Perceptions of the trustworthiness and credibility of the process can be enhanced by conveying images that signal fairness and reciprocity in proposals and concessions (see Box 1.4). When one party makes several proposals that are rejected by the other party and the other party offers no proposal, the first party may feel improperly treated and may break off negotiations. When people make a concession, they trust the other party and the process far more if a concession is returned. In fact, the belief that concessions will occur in negotiations appears to be almost universal. During training seminars, we have asked negotiators from more than 50 countries if they expect give-and-take to occur during negotiations in their culture; all have said they do. This pattern of give-and-take is not just a characteristic of negotiation; it is also essential to joint problem solving in most interdependent relationships.[13] Satisfaction with negotiation is as much determined by the process through which an agreement is reached as with the actual outcome obtained. To eliminate or even deliberately attempt to reduce this give-and-take—as some legal and labor–management negotiating strategies have attempted[14]—is to short-circuit the process, and it may destroy both the basis for trust and any possibility of achieving a mutually satisfactory result.

Value Claiming and Value Creation

Earlier, we identified two types of interdependent situations—zero-sum and non-zero-sum. Zero-sum, or *distributive, situations* are ones where there can be only one winner or where the parties are attempting to get the larger share or piece of a fixed resource, such as an amount of raw material, money, time, and the like. In contrast, non-zero-sum, or *integrative or mutual gains, situations* are ones where many people can achieve their goals and objectives.

The structure of the interdependence shapes the strategies and tactics that negotiators employ. In distributive situations negotiators are motivated to win the competition and beat the other party or to gain the largest piece of the fixed resource that they can. In order to achieve these objectives, negotiators usually employ win-lose strategies and tactics. This approach to negotiation—called distributive bargaining—accepts the fact that there can only be one winner given the situation and pursues a course of action to be that winner. The purpose of the negotiation is to *claim value*—that is, to do whatever is necessary to claim the reward, gain the lion's share, or gain the largest piece possible.[15] An example of this type of negotiation is purchasing a used car or buying a used refrigerator at a yard sale. We fully explore the strategy and tactics of distributive bargaining, or processes of claiming value, in Chapter 2, and some of the less ethical tactics that can accompany this process in Chapter 9.

In contrast, in integrative situations the negotiators should employ win-win strategies and tactics. This approach to negotiation—called integrative negotiation—attempts to find solutions so both parties can do well and achieve their goals. The purpose of the negotiation is to *create value*—that is, to find a way for all parties to meet their objectives, either by identifying more resources or finding unique ways to share and coordinate the use of existing resources. An example of this type of negotiation might be planning a wedding so that the bride, groom, and both families are happy and satisfied, and the guests have a wonderful time. We fully explore the strategy and tactics of integrative, value creating negotiations in Chapter 3.

It would be simple and elegant if we could classify all negotiation problems into one of these two types and indicate which strategy and tactics are appropriate for each problem.

Key

Unfortunately, *most actual negotiations are a combination of claiming and creating value processes*. The implications for this are significant:

1. *Negotiators must be able to recognize situations that require more of one approach than the other*: those that require predominantly distributive strategy and tactics, and those that require integrative strategy and tactics. Generally, distributive bargaining is most appropriate when time and resources are limited, when the other is likely to be competitive, and when there is no likelihood of future interaction with the other party. Every other situation should be approached with an integrative strategy.
2. *Negotiators must be versatile in their comfort and use of both major strategic approaches*. Not only must negotiators be able to recognize which strategy is most appropriate, but they must be able to use both approaches with equal versatility. There is no single "best," "preferred," or "right" way to negotiate; the choice of negotiation strategy requires adaptation to the situation, as we will explain more fully in the next section on conflict. Moreover, if most negotiation issues or problems have components of both claiming and creating values, then negotiators must be able to use both approaches in the same deliberation.
3. *Negotiator perceptions of situations tend to be biased toward seeing problems as more distributive/competitive than they really are*. Accurately perceiving the nature of the interdependence between the parties is critical for successful negotiation. Unfortunately, most negotiators do not accurately perceive these situations. People bring baggage with them to a negotiation: past experience, personality, moods, habits, and beliefs about how to negotiate. These elements dramatically shape how people perceive an interdependent situation, and these perceptions have a strong effect on the subsequent negotiation. Moreover, research has shown that people are prone to several systematic biases in the way they perceive and judge interdependent situations. While we discuss these biases extensively in Chapter 5, the important point here is that the predominant bias is to see interdependent situations as more distributive or competitive than they really are. As a result, there is a tendency to assume a negotiation problem is more zero-sum than it may be and to overuse distributive strategies for solving the problem. As a consequence, negotiators often leave unclaimed value at the end of their negotiations because they failed to recognize opportunities for creating value.

The tendency for negotiators to see the world as more competitive and distributive than it is, and to underuse integrative, creating-value processes, suggests that many negotiations yield suboptimal outcomes. At the most fundamental level, successful coordination of interdependence has the potential to lead to synergy, which is the notion that "the whole is greater than the sum of its parts." There are numerous examples of synergy. In the business world, many research-and-development joint ventures are designed to bring together experts from different industries, disciplines, or problem orientations to maximize their innovative potential beyond what each company can do individually. Examples abound of new technologies in the areas of medicine, communication, computing, and the like. In these situations, interdependence was created between two or more of the parties, and the creators of these enterprises, who successfully applied the negotiation skills discussed throughout this book, enhanced the potential for successful value creation.

Value may be created in numerous ways, and the heart of the process lies in exploiting the differences that exist between the negotiators.[16] The key differences among negotiators include these:

- *Differences in interests.* Negotiators seldom value all items in a negotiation equally. For instance, in discussing a compensation package, a company may be more willing to concede on a signing bonus than on salary because the bonus occurs only in the first year, while salary is a permanent expense. An advertising company may be quite willing to bend on creative control of a project, but very protective of control over advertising placement. Finding compatibility in different interests is often the key to unlocking the puzzle of value creation.
- *Differences in judgments about the future.* People differ in their evaluation of what something is worth or the future value of an item. For instance, is that piece of swamp land a good or bad investment of your hard-earned income? Some people can imagine the future house site and swimming pool, whereas others will see it as a bug-infested flood control problem. Real estate developers work hard to identify properties where they see future potential that current owners fail to recognize.
- *Differences in risk tolerance.* People differ in the amount of risk they are comfortable assuming. A young, single-income family with three children can sustain less risk than a mature, dual-income couple without children. A company with a cash flow problem can assume less risk of expanding its operations than one that is cash rich.
- *Differences in time preference.* Negotiators frequently differ in how time affects them. One negotiator may want to realize gains now while the other may be happy to defer gains into the future; one needs a quick settlement while the other has no need for any change in the status quo. Differences in time preferences have the potential to create value in a negotiation. For instance, a car salesman may want to close a deal by the end of the week in order to be eligible for a special company bonus, while the potential buyer intends to trade his car in "sometime in the next six months".

In summary, while value is often created by exploiting common interests, differences can also serve as the basis for creating value. The heart of negotiation is exploring both common and different interests to create this value and employing such interests as the foundation for a strong and lasting agreement. Differences can be seen as insurmountable, however, and in that case serve as barriers to reaching agreement. As a result, negotiators must also learn to manage conflict effectively in order to manage their differences while searching for ways to maximize their joint value. Managing conflict is the focus of the next section.

Conflict

A potential consequence of interdependent relationships is conflict. Conflict can result from the strongly divergent needs of the two parties or from misperceptions and misunderstandings. Conflict can occur when the two parties are working toward the

outcomes. Regardless of the cause of the conflict, negotiation can play an important role in resolving it effectively. In this section, we will define conflict, discuss the different levels of conflict that can occur, review the functions and dysfunctions of conflict, and discuss strategies for managing conflict effectively.

Definitions

Conflict may be defined as a "sharp disagreement or opposition, as of interests, ideas, etc." and includes "the perceived divergence of interest, or a belief that the parties' current aspirations cannot be achieved simultaneously."[17] Conflict results from "the interaction of interdependent people who perceived incompatible goals and interference from each other in achieving those goals."[18]

Levels of Conflict

One way to understand conflict is to distinguish it by level. Four levels of conflict are commonly identified:

1. *Intrapersonal or intrapsychic conflict.* These conflicts occur within an individual. Sources of conflict can include ideas, thoughts, emotions, values, predispositions, or drives that are in conflict with each other. We want an ice cream cone badly, but we know that ice cream is very fattening. We are angry at our boss, but we're afraid to express that anger because the boss might fire us for being insubordinate. The dynamics of intrapsychic conflict are traditionally studied by various subfields of psychology: cognitive psychologists, personality theorists, clinical psychologists, and psychiatrists. Although we will occasionally delve into the internal psychological dynamics of negotiators (e.g., in Chapter 5), this book generally doesn't address intrapersonal conflict.
2. *Interpersonal conflict.* A second major level of conflict is between individuals. Interpersonal conflict occurs between workers, spouses, siblings, roommates, or neighbors. Most of the negotiation theory in this book is drawn from studies of interpersonal negotiation and directly addresses the management and resolution of interpersonal conflict.
3. *Intragroup conflict.* A third major level of conflict is within a group—among team and work group members and within families, classes, living units, and tribes. At the intragroup level, we analyze conflict as it affects the ability of the group to make decisions, work productively, resolve its differences, and continue to achieve its goals effectively.
4. *Intergroup conflict.* The final level of conflict is intergroup—between organizations, ethnic groups, warring nations, or feuding families or within splintered, fragmented communities. At this level, conflict is quite intricate because of the large number of people involved and the multitudinous ways they can interact with each other. Negotiations at this level are also the most complex.

Functions and Dysfunctions of Conflict

Most people initially believe that conflict is bad or dysfunctional. This belief has two as-and, second, that conflict creates largely destructive consequences. Deutsch and others[19] have elaborated on many of the elements that contribute to conflict's destructive image:

1. *Competitive, win-lose goals*. Parties compete against each other because they believe that their interdependence is such that goals are in opposition and both cannot simultaneously achieve their objectives. Competitive goals lead to competitive processes to obtain those goals.[20]
2. *Misperception and bias*. As conflict intensifies, perceptions become distorted. People come to view things consistently with their own perspective of the conflict. Hence, they tend to interpret people and events as being either with them or against them. In addition, thinking tends to become stereotypical and biased—parties endorse people and events that support their position and reject outright those who oppose them.
3. *Emotionality*. Conflicts tend to become emotionally charged as the parties become anxious, irritated, annoyed, angry, or frustrated. Emotions overwhelm clear thinking, and the parties may become increasingly irrational as the conflict escalates.
4. *Decreased communication*. Productive communication declines with conflict. Parties communicate less with those who disagree with them and more with those who agree. The communication that does occur is often an attempt to defeat, demean, or debunk the other's view or to strengthen one's own prior arguments.
5. *Blurred issues*. The central issues in the dispute become blurred and less well defined. Generalizations abound. The conflict becomes a vortex that sucks in unrelated issues and innocent bystanders. The parties become less clear about how the dispute started, what it is "really about," or what it will take to solve it.

key

6. *Rigid commitments*. The parties become locked into positions. As the other side challenges them, parties become more committed to their points of view and less willing to back down from them for fear of losing face and looking foolish. Thinking processes become rigid, and the parties tend to see issues as simple and "either/or" rather than as complex and multidimensional.
7. *Magnified differences, minimized similarities*. As parties lock into commitments and issues become blurred, they tend to see each other—and each other's positions—as polar opposites. Factors that distinguish and separate them from each other become highlighted and emphasized, while similarities that they share become oversimplified and minimized. This distortion leads the parties to believe they are further apart from each other than they really may be, and hence they may work less hard to find common ground.
8. *Escalation of the conflict*. As the conflict progresses, each side becomes more entrenched in its own view, less tolerant and accepting of the other, more defensive and less communicative, and more emotional. The net result is that both parties attempt to win by increasing their commitment to their position, increasing the resources they are willing to spend to win, and increasing their tenacity in holding their ground under pressure. Both sides believe that by adding more pressure (resources, commitment, enthusiasm, energy, etc.), they can force the other to capitulate and admit defeat. As most destructive conflicts reveal, however, nothing could be further from the truth! Escalation of the conflict level and commitment to winning can increase so high that the parties will destroy their ability to resolve the conflict or ever be able to deal with each other again.

These are the processes that are commonly associated with escalating, polarized, "intractable" conflict (see also "Managing Negotiation Impasses," on the Web site for this text). However, conflict also has many *productive* aspects.[21] Figure 1.1 outlines some productive aspects of conflict. From this perspective, conflict is not simply destructive or productive; it is both. The objective is not to eliminate conflict but to learn how to manage it to control the destructive elements while enjoying the productive aspects. Negotiation is a strategy for productively managing conflict.

Factors That Make Conflict Easy or Difficult to Manage

Figure 1.2 presents a conflict diagnostic model. This model offers some useful dimensions for analyzing any dispute and determining how easy or difficult it will be to resolve. Conflicts with more of the characteristics in the "difficult to resolve" column will be harder to settle, while those that have more characteristics in the "easy to resolve" column will be settled quicker.

FIGURE 1.1 | Functions and Benefits of Conflict

- Discussing conflict makes organizational members more aware and able to cope with problems. Knowing that others are frustrated and want change creates incentives to try to solve the underlying problem.
- Conflict promises organizational change and adaptation. Procedures, assignments, budget allocations, and other organizational practices are challenged. Conflict draws attention to those issues that may interfere with and frustrate employees.
- Conflict strengthens relationships and heightens morale. Employees realize that their relationships are strong enough to withstand the test of conflict; they need not avoid frustrations and problems. They can release their tensions through discussion and problem solving.
- Conflict promotes awareness of self and others. Through conflict, people learn what makes them angry, frustrated, and frightened and also what is important to them. Knowing what we are willing to fight for tells us a lot about ourselves. Knowing what makes our colleagues unhappy helps us to understand them.
- Conflict enhances personal development. Managers find out how their style affects their subordinates through conflict. Workers learn what technical and interpersonal skills they need to upgrade themselves.
- Conflict encourages psychological development—it helps people become more accurate and realistic in their self-appraisals. Through conflict, people take others' perspectives and become less egocentric. Conflict helps people believe they are powerful and capable of controlling their own lives. They do not simply need to endure hostility and frustration but can act to improve their lives.
- Conflict can be stimulating and fun. People feel aroused, involved, and alive in conflict, and it can be a welcome break from an easygoing pace. It invites employees to take another look and to appreciate the intricacies of their relationships.

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FIGURE 1.2 | Conflict Diagnostic Model

Dimension	Viewpoint Continuum: Difficult to Resolve	Easy to Resolve
Issue in question	Matter of "principle"—values, ethics, or precedent a key part of the issue	Divisible issue—issue can be easily divided into small parts, pieces, units
Size of stakes—magnitude of what can be won or lost	Large—big consequences	Small—little, insignificant consequences
Interdependence of the parties—degree to which one's outcomes determine the other's outcomes	Zero sum—what one wins, the other loses	Positive sum—both believe that *both* can do better than simply distributing current outcomes
Continuity of interaction—will they be working together in the future?	Single transaction—no past or future	Long-term relationship—expected interaction in the future
Structure of the parties—how cohesive, organized they are as a group	Disorganized—uncohesive, weak leadership	Organized—cohesive, strong leadership
Involvement of third parties—can others get involved to help resolve the dispute?	No neutral third party available	Trusted, powerful, prestigious third party available
Perceived progress of the conflict—balanced (equal gains and equal harm) or unbalanced (unequal gain, unequal harm)?	Unbalanced—one party feels more harm and will want revenge and retribution whereas stronger party wants to maintain control	Balanced—both parties suffer equal harm and equal gain; both may be more willing to call it a "draw"

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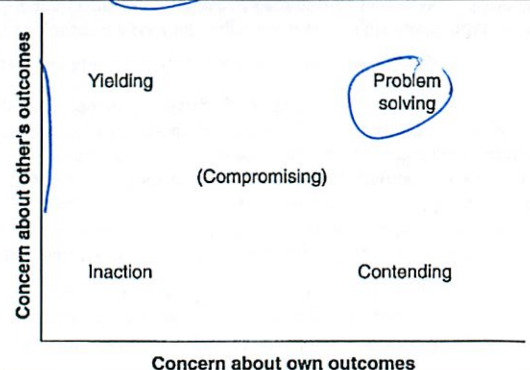
Effective Conflict Management

Many frameworks for managing conflict have been suggested, and inventories have been constructed to measure negotiator tendencies to use these approaches.[22] Each approach begins with a similar two-dimensional framework and then applies different labels and descriptions to five key points. We will describe these points using the framework proposed by Dean Pruitt, Jeffrey Rubin, and S. H. Kim.[23]

The two-dimensional framework presented in Figure 1.3 is called the *dual concerns model*. The model postulates that people in conflict have two independent types of concern: concern about their own outcomes (shown on the horizontal dimension of the figure) and concern about the other's outcomes (shown on the vertical dimension of the figure). These concerns can be represented at any point from none (representing very low concern) to high (representing very high concern). The vertical dimension is often referred to as the cooperativeness dimension, and the horizontal dimension as the assertiveness dimension. The stronger their concern for their own outcomes, the more likely people will be to pursue strategies located on the right side of the figure, whereas the weaker their concern for their own outcomes, the more likely they will be to pursue strategies located on the left side of the figure. Similarly, the stronger their concern for permitting, encouraging, or even helping the other party achieve his or her outcomes, the more likely people will be to pursue strategies located at the top of the figure. The weaker their concern for the other party's outcomes, the more likely they will be to pursue strategies located at the bottom of the figure.

Although we can theoretically identify an almost infinite number of points within the two-dimensional space based on the level of concern for pursuing one's own and the

FIGURE 1.3 | The Dual Concerns Model



Source: Reprinted from *Social Conflict: Escalation, Stalemate and Settlement* (2nd ed.) by J. Rubin, D. Pruitt and S. H. Kim by permission of the publisher.

other's outcomes, five major strategies for conflict management have been commonly identified in the dual concerns model:

1. *Contending* (also called competing or dominating) is the strategy in the lower right-hand corner. Actors pursuing the contending strategy pursue their own outcomes strongly and show little concern for whether the other party obtains his or her desired outcomes. As Pruitt and Rubin (1986) state, "[P]arties who employ this strategy maintain their own aspirations and try to persuade the other party to yield" (p. 28). Threats, punishment, intimidation, and unilateral action are consistent with a contending approach.

2. *Yielding* (also called accommodating or obliging) is the strategy in the upper left-hand corner. Actors pursuing the yielding strategy show little interest or concern in whether they attain their own outcomes, but they are quite interested in whether the other party attains his or her outcomes. Yielding involves lowering one's own aspirations to "let the other win" and gain what he or she wants (see cartoon). Yielding may seem like a strange strategy to some, but it has its definite advantages in some situations.

3. *Inaction* (also called avoiding) is the strategy in the lower left-hand corner. Actors pursuing the inaction strategy show little interest in whether they attain their own outcomes, as well as little concern about whether the other party obtains his or her outcomes. Inaction is often synonymous with withdrawal or passivity; the party prefers to retreat, be silent, or do nothing.

"My concession speech will be brief. You win."

4. *Problem solving* (also called collaborating or integrating) is the strategy in the upper right-hand corner. Actors pursuing the problem-solving strategy show high concern for attaining their own outcomes and high concern for whether the other party attains his or her outcomes. In problem solving, the two parties actively pursue approaches to maximize their joint outcome from the conflict.

5. *Compromising* is the strategy located in the middle of Figure 1.3. As a conflict management strategy, it represents a moderate effort to pursue one's own outcomes and a moderate effort to help the other party achieve his or her outcomes. Pruitt and Rubin do not identify compromising as a viable strategy; they see it "as arising from one of two sources—either lazy problem solving involving a half-hearted attempt to satisfy the two parties' interests, or simple yielding by both parties."[24] However, because other scholars who use versions of this model (see endnote 25) believe that compromising represents a valid strategic approach to conflict, we have inserted it in Pruitt, Rubin, and Kim's framework in Figure 1.3.

Much of the early writing about conflict management strategies—particularly the work in the 1960s and 1970s—had a strong normative value bias against conflict and toward cooperation.[25] Although the models suggested the viability of all five strategic approaches to managing conflict, problem solving was identified as the distinctly preferred approach. These writings stressed the virtues of problem solving, advocated using it, and described how it could be pursued in almost any conflict. However, more recent writing, although still strongly committed to problem solving, has been careful to stress that each conflict management strategy has its advantages and disadvantages and can be more or less appropriate to use given the type of interdependence and conflict context (see Figure 1.4).

Summary

In this chapter, we have set the groundwork for a thorough and detailed examination of the negotiation process. We began with examples—examples from the news of events around the world and examples from our everyday experience. We used these examples to introduce the variety of negotiations that occur daily and to discuss how we will present material in this book. We then turned to the extended example of a day in the life of Joe and Sue Carter and showed how negotiations permeate daily experience. We also used this example to help define the key parameters of a negotiation situation.

Our definition and these examples lead us to explore four key elements of the negotiation process: managing interdependence, engaging in mutual adjustment, creating or claiming value, and managing conflict. Each of these elements is foundational to understanding how negotiation works. Managing interdependence is about the parties understanding the ways they are dependent on each other for attaining their goals and objectives. Mutual adjustment introduces the ways parties begin to set goals for themselves in a negotiation and adjust to goals stated by the other party in order to emerge with an agreement that is satisfactory to both. Claiming and creating value are the processes by which parties handle negotiation opportunities to share or "win" a scarce resource or to enhance the resource so both sides can gain. Finally, managing conflict helps negotiators understand how conflict is functional and dysfunctional. It involves some basic strategies to maximize the benefits of conflict and limit its costs.

FIGURE 1.4 | Styles of Handling Interpersonal Conflict and Situations Where They Are Appropriate or Inappropriate

Conflict Style	Situations Where Appropriate	Situations Where Inappropriate
Integrating	1. Issues are complex. 2. Synthesis of ideas is needed to come up with better solutions. 3. Commitment is needed from other parties for successful implementation. 4. Time is available for problem solving. 5. One party alone cannot solve the problem. 6. Resources possessed by different parties are needed to solve their common problems.	1. Task or problem is simple. 2. Immediate decision is required. 3. Other parties are unconcerned about outcome. 4. Other parties do not have problem-solving skills.
Obliging	1. You believe you may be wrong. 2. Issue is more important to the other party. 3. You are willing to give up something in exchange for something from the other party in the future. 4. You are dealing from a position of weakness. 5. Preserving relationship is important.	1. Issue is important to you. 2. You believe you are right. 3. The other party is wrong or unethical.
Dominating	1. Issue is trivial. 2. Speedy decision is needed. 3. Unpopular course of action is implemented. 4. Necessary to overcome assertive subordinates. 5. Unfavorable decision by the other party may be costly to you. 6. Subordinates lack expertise to make technical decisions. 7. Issue is important to you.	1. Issue is complex. 2. Issue is not important to you. 3. Both parties are equally powerful. 4. Decision does not have to be made quickly. 5. Subordinates possess high degree of competence.
Avoiding	1. Issue is trivial. 2. Potential dysfunctional effect of confronting the other party outweighs benefits of resolution. 3. Cooling off period is needed.	1. Issue is important to you. 2. It is your responsibility to make decision. 3. Parties are unwilling to defer; issue must be resolved. 4. Prompt attention is needed.
Compromising	1. Goals of parties are mutually exclusive. 2. Parties are equally powerful. 3. Consensus cannot be reached. 4. Integrating or dominating style is not successful. 5. Temporary solution to a complex problem is needed.	1. One party is more powerful. 2. Problem is complex enough to need a problem-solving approach.

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These four processes are central to any negotiation, and they serve as the foundation for our expanded treatment of this subject. In the remainder of this chapter, we provide an overview of our broader approach by introducing the overall organization and chapters in the book.

Overview of the Chapters in This Book

Each chapter in this book can be related to the introductory examples we used at the beginning of the chapter. The book is organized into 12 chapters. The first four chapters address the fundamentals of negotiation. In addition to this first overview chapter, Chapters 2 and 3 explore the basic strategy and tactics of distributive bargaining and integrative negotiation. Chapter 4 explores how parties can plan and prepare a negotiation strategy and effectively anticipate their encounter with the other negotiator.

The next four chapters explore critical negotiation subprocesses. In Chapter 5, we discuss how a negotiator's perceptions, cognitions, and emotions tend to shape (and often bias) the way the negotiator views and interprets bargaining interaction. Chapter 6 examines the processes by which negotiators effectively communicate their interests, positions, and goals, and make sense of the other party's communications. Chapter 7 focuses on power in negotiation; the chapter begins by defining the nature of power, and discussing some of the dynamics of using it in negotiation, followed by an exploration of the key sources of power available to most negotiators. (on the text's Web site, the section entitled "Influence" examines the way negotiators actually exert influence—how they use the tools of communication and power to bring about desired attitude and behavior changes in the other party.) Finally, in Chapter 8, we discuss whether there are, or should be, accepted ethical standards to guide negotiations. We identify the major ethical dimensions raised in negotiation, describe the ways negotiators tend to think about these choices, and provide a framework for making informed ethical decisions.

Much of our discussion thus far assumes that the negotiation parties do not have an established long-term relationship. Chapter 9 looks at the way that established relationships impact current negotiations, and considers three major concerns—reputations, trust, and fairness—that are particularly critical to effective negotiations within a relationship. In Chapter 10, we examine how negotiations change when there are multiple parties at the table—such as negotiating within groups and teams—attempting to achieve a collective agreement or group consensus. In Chapter 11, we examine how different languages and national culture changes the "ground rules" of negotiation. This chapter discusses some of the factors that make international negotiation different, and how national culture affects the rhythm and flow of negotiation. In (the Web site section entitled "Managing Negotiation Impasses," we examine ways that parties can deal with failures to complete negotiations successfully. We address situations where negotiations become especially difficult, often to the point of impasse, stalemate, or breakdown. We explore the fundamental mistakes that often create these impasses, and discuss strategies that negotiators can use to get things back on track.) Finally, in Chapter 12, we reflect on negotiation at a broad level. We look back at the broad perspective we have provided, and suggest 10 best practices for those who wish to continue to improve their negotiation skills.

Endnotes

1. Hochberg and Kressel, 1996; Oliver, Balakrishnan, and Barry, 1994; Olekalns, Smith, and Walsh, 1996; Weiss, 1997.
2. See Lewicki, 1992; Rubin and Brown, 1975.
3. Deutsch, 1962, p. 176.
4. Fisher, Ury, and Patton, 1991.
5. Goffman, 1969; Pruitt and Rubin, 1986; Raven and Rubin, 1973; Ritov, 1996.
6. Alexander, Schul, and Babakus, 1991; Donohue and Roberto, 1996; Eyuboglu and Buja, 1993; Pinkley and Northcraft, 1994.
7. Gray, 1994; Kolb, 1985; Kolb and Putnam, 1997.
8. Beisecker, Walker, and Bart, 1989; Raven and Rubin, 1973.
9. Fisher, Ury, and Patton, 1991; Follett, 1940; Nash, 1950; Sebenius, 1992; Sen, 1970; Walton and McKersie, 1965.
10. Pruitt, 1981.
11. Kelley, 1966.
12. We are not suggesting that Max should do this; rather, because the long-term relationship is important in this situation, Max should ensure that both parties' needs are met. see Chapter 3 for an expanded discussion of this point.
13. Kimmel, Pruitt, Magenau, Konar-Goldband, and Carnevale, 1980; Putnam and Jones, 1982; Weingart, Thompson, Bazerman, and Carroll, 1990.
14. Raiffa, 1982; Selekman, Fuller, Kennedy, and Baitsel, 1964.
15. Lax and Sebenius, 1986.
16. Ibid.
17. Pruitt and Rubin, 1986, p. 4.
18. Hocker and Wilmot, 1985.
19. Deutsch, 1973.
20. As mentioned earlier, however, the goals may not actually be in opposition, and the parties need not compete. Perception is more determinant than reality.
21. Coser, 1956; Deutsch, 1973.
22. Filley, 1975; Hall, 1969; Rahim, 1983, 1992; Thomas, 1992; Thomas and Kilmann, 1974.
23. Pruitt, Rubin, and Kim, 1994.
24. Ibid.
25. Lewicki, Weiss, and Lewin, 1992.

CHAPTER 2

Strategy and Tactics of Distributive Bargaining

Eighteen months ago Larry decided to move closer to where he works. Following this decision to move, he put his condo on the market and started to look for a new one—but with no results. Fourteen months later, Larry finally received an offer to buy his condo and, after a brief negotiation, settled on the selling price. Because he had not yet found a condo to buy, he postponed closing the sale for six months to give himself additional time to look. The buyer, Barbara, was not happy about having to wait that long because of the inconvenience and the difficulty of getting a bank to guarantee an interest rate for a loan so far in advance. Larry adjusted the price so Barbara would accept this postponement, but it was clear that she would be much happier if he could move the date closer.

There were relatively few condos on the market in the area where Larry wanted to live, and none of them was satisfactory. He jokingly said that unless something new came on the market, he would be sleeping in a tent on the town common when the leaves turned in the fall. Two months later a condo came on the market that met his requirements. The seller, Megan, set the asking price at $145,000, which was $10,000 above what Larry hoped to pay but $5,000 below the most he would be willing to pay. Larry knew that the more he paid for the condo, the less he would have to make some very desirable alterations, buy draperies and some new furniture, and hire a moving company.

This illustration provides the basic elements of a distributive bargaining situation. It is also called competitive, or win-lose, bargaining. In a distributive bargaining situation, the goals of one party are usually in fundamental and direct conflict with the goals of the other party. Resources are fixed and limited, and both parties want to maximize their share. As a result, each party will use a set of strategies to maximize his or her share of the outcomes to be obtained. One important strategy is to guard information carefully—one party tries to give information to the other party only when it provides a strategic advantage. Meanwhile, it is highly desirable to get information from the other party to improve negotiation power. Distributive bargaining is basically a competition over who is going to get the most of a limited resource, which is often money. Whether or not one or both parties achieve their objectives will depend on the strategies and tactics they employ.[1]

For many, the strategies and tactics of distributive bargaining are what negotiation is all about. Images come to mind of smoke-filled rooms packed with men arguing and fighting for their points of view. Many people are attracted to this view of negotiation and look forward to learning and sharpening an array of hard-bargaining skills; others are repelled by distributive bargaining and would rather walk away than negotiate this

15.301 Negotiations

4/2

One of 2 units on negotiations

How to do it well? ↳ getting stuff done

Exercises

- the hand back + forth

Shows: there is not always a winner + loser in negotiation

Your goal is to maximize your outcome

Can cooperate

Exercise 2: Allocator and ~~[illegible]~~ Reciever

$10,000 and $10 - diff sheets

5,5 were ~~[illegible]~~ ~~[illegible]~~ common

Shows: People think of fairness

esp in low amts of $

Only up to a point

②

Exercise 3: Dr Shanhez + Dr Wilson Prunes

(I did this before - but lead him on to it
- don't say directly)

Split the prtnes

Most people figured it out

integrative deal

Others
Share info - be honest

Ask what you are looking for

But still $

Half and half ?

Or extra in return for the formula to grow
them inorganically when avilable

Or to put Cos name on UN program

integrative - make pie bigger

distrubitive - fighting over the split of pie

(3)

Key: recognize integrative vs distributive scenario

∟Ask: what do you really care about

BATNA - What do if no agreement

Reservation Price - max price willing to pay (if buying)

min (if selling)

ZOPA - range b/w parties reservation price

(He didn't know Slippery Rock was a real school trashed it on a radio show)

A better ~~ZOPA~~ BATNA helps you negotiate better

know your res price

∟~~Always~~ Always try to improve

How do you do the ~~integrative~~ distributive w/out ruining the ~~distributive~~ integrative

- do integrative 1st

(4)

Distributive strategy

Know BATNA

Improve BATNA

- apply for multiple jobs

Learn their BATNA

Change their perceptions of theirs + your BATNA

Tatics

- make or imply commitments
    - └ my wife will divorce me if I don't get this price
    - troops in N/S korea - if they get attacked there will be more
    - I'll get fired
- Move 1st
    - set the anchor
    - Only if you know what it is worth

(5)

- Blemish
  - I like the car, but not the color
- Authority
  - Going rate for people like me is X
  - Constitution says ___
- Scarcity
  - last one left
  - Car buying
    - sunk cost of time
    - and I need to do other stuff
  - tell the salesman - I'll give ya 30 min
- ~~[illegible]~~ Anchor
- Seq counteroffers to converge
  - not all = intervals
    10k → 11k 11.5k 11.75k
- Shock or Surprise
  - You got to be kidding me

6

Squeeze hard only if you don't see them again

Integrative bargaining

- Where op for cooperation
- talk about interests
- identify ways to collaborate
- keep testing
- must trust the other person
  - trust is not easy
- Prisoners delimma
- Perhaps start w/ small concession
- Find ways to build trust / make credible commitments

Next class Salary negotiation

Read the paper for next class

The Pakistani Prunes

ROLE FOR DR. KIM WILSON

You are Dr. Kim Wilson of TechnoGen of San Jose, California. Your firm is a world leader in the development of genetic engineering processes, biomedical technology and the creation of "new" products for the agricultural and health sciences. Your firm has a multi-million dollar annual budget for the development and testing of new products.

TechnoGen has spent millions of dollars on the research and development of a new drug that will actually reduce blood cholesterol levels. This new substance was discovered accidentally in the process of working on an industry product to develop a good tasting, low fat medical nutritional supplement. If you are successful in developing this product, people could take the product and significantly reduce their blood cholesterol levels AND cholesterol buildup in their bodies simply by diet alone, and without any change in their current exercise program.

This new substance can only be found in the Pakistani Prune, which grows on trees in certain parts of Pakistan. The trees are in a deserted and remote part of the country, making them highly inaccessible for easy harvesting. All efforts to transplant the trees to regions of the world where production would be easier and cheaper have failed—there seems to be some combination of the trees themselves and the quality of the agricultural and weather conditions that only allow the trees to thrive in this area. Moreover, efforts to expand the production in this area have been unsuccessful.

Pakistani prune trees bear fruit only once every two years (a ripe prune is about the size, color and texture of a plum). The process for obtaining the key compound from the prunes requires picking them, washing them and then extracting the pulp ("meat") from the prunes. This pulp "mash" is then bio-chemically treated and subject to several genetic engineering processes. It has been estimated that the mash extract of an entire harvest would be sufficient to produce enough compound to treat more than 20,000 high-cholesterol-risk people. Your scientists claim that they are at least 5 years away from solving the problem of how to create the conditions to grow fruit-bearing trees in other parts of the world, and at least 10 years away from being able to create a synthetic mash in the laboratory.

The biannual harvest has just been completed. The output from the entire harvest of Pakistani Prunes is being controlled by the Ministry of Agriculture, which will sell the batch to the highest bidder. Knowing the importance of the mash and the potential lives that might be saved by reducing heart attack risk in high cholesterol patients, you are eager to make this purchase for your company. You have been authorized by TechnoGen to spend up to $5 million to obtain the prunes.

You have just learned that a potential competitor, Dr. Rubio Sanchez, working for some United Nations agency, also has plans to make a bid on the prunes. You don't know any more about the competitor or why he wants the prunes, but you know that you must get the prunes to continue working on this important problem (which promises fabulous profits for your company)! You were just about to call Dr. Sanchez and request a meeting when you received Sanchez's call, requesting a meeting. The two of you have agreed to meet in a cafe near your hotel in Karachi. You have no idea what you will encounter, but you have heard that Sanchez is quite ruthless and very clearly wants the prunes for his organization. As a world government organization, they probably have a lot of money to throw around if they want to!

THREE CORE CONCEPTS

BATNA: Best Alternative to a Negotiated Agreement – what you will do if you do not reach agreement

Reservation Price: the value (maximum or minimum) at which you would be indifferent between entering into or not entering into an agreement, a.k.a. your bottom line.

ZOPA: Zone of Possible Agreement – the range, if one exists, between the parties' reservation prices, a.k.a. the bargaining range

DISTRIBUTIVE V. INTEGRATIVE BARGAINING

- DISTRIBUTIVE: FIXED PIE
- INTEGRATIVE: MAKE THE PIE LARGER
- MIXED: MAKE THE PIE LARGER, BUT WHO GETS WHICH PIECE?

DISTRIBUTATIVE STRATEGY

- KNOW YOUR BATNA
- IMPROVE YOUR BATNA
- LEARN THEIR BATNA
- CHANGE THEIR PERCEPTIONS OF THEIRS AND YOUR BATNA

NEGOTIATIONS TACTICS, DISTRIBUTIONAL

- MAKE OR IMPLY COMMITMENTS
- DECIDE IF TO MAKE FIRST OFFER
- THE BLEMISH
- SUNK COST
- USE OF AUTHORITY
- SENSE OF SCARCITY
- TIME PRESSURE
- FOCAL POINT

TACTICS, CONTINUED

- SEQUENCE COUNTER OFFERS TO CONVERGE ON YOUR POINT
- REACT WITH SHOCK OR SURPRISE
- SAY "YOU'LL HAVE TO DO BETTER THAN THAT'
- DON'T MAKE EQUAL SIZE CONCESSIONS

Integrative Bargaining Strategies

1. Identify where cooperation can make both parties better off.
2. Generate alternative proposals/solutions.
3. Make a *credible* agreement to cooperate in preferred solution.

INTEGRATIVE

- BRAINSTORM
- ASK ABOUT REAL INTERESTS
- ASK ABOUT WHAT VALUE, AND LOOK FOR DIFFERENCES
- WHEN YOU REACH AN AGREEMENT ASK "OK, CAN WE IMPROVE THIS AND MAKE ONE OF US BETTER OFF WITHOUT HURTING THE OTHER" IF SO, DO IT AND SPLIT GAINS
- DO INTEGRATIVE BEFORE DISTRIBUTIONAL

Prisoner's Dilemma Highlights Problems In Integrative Bargaining

		Prisoner A: Defect	Prisoner A: Cooperate
Prisoner B	Defect	4 years for each	0 years for B 6 years for A
	Cooperate	6 years for B 0 years for A	2 years each

15.301 4/4

(exams back at end of class)
(only 7 people showed up today)

Recruiter / Job canidate

(I asked his current salary)
\$55 k / year before master
\$75 k / year range
We offer \$65 k
He doesn't want one
And moving expenses

Can't really start by Sept 1
\$20 k bonus for Feb 1
Start Aug 1
\$70 k he offers
I said \$70 k is top
Do \$5 k for moving costs

Deal ☺

Computron Pharmaceuticals

Role of Recruiter (HP)

By Leigh Thompson, Victoria Medvec, Wendi Adair, Peter Kim, Kathleen O'Connor & Janice Nadler

Dispute Resolution Research Center

Read 4/3

You are a senior manager at Computron Pharmaceuticals, a computer company that develops high-tech medical and surgical software applications. You joined Computron three years ago after receiving a Master's degree in Electrical Engineering. You work in the medical procedures division, a contained area that pilot tests surgical instruments and technologies.[1]

One of your current responsibilities is to hire a program manager to work on developing MEDWARE, a new medical applications program using SIMULINK, a complex, high-level graphics package. You have a meeting scheduled with a job candidate who will graduate from a MSEE program this June. As a graduate of the same university, you have a natural bias toward hiring graduates of this program. Your firm has already interviewed the candidate twice and the hiring committee is prepared to make the candidate an offer. You are meeting with the candidate to negotiate the specific terms of the offer.

Your firm interviewed 50 people for this position. For a variety of reasons, your firm decided to make this particular candidate the offer. If the candidate does not accept the job, however, Computron has identified another candidate who is reasonably well qualified. The position that Computron is hiring for is for a MEDWARE program manager and the person in this position needs to have expertise in SIMULINK in order to carry out this new product development. SIMULINK is very complex, but because it is popular, many people have expertise with the system. The MEDWARE program manager would develop the MEDWARE software, oversee the clinical trials, troubleshoot problems that arise, and work on several planned extensions. MEDWARE is a high-priority, very important new product development for Computron.

As you think about your upcoming meeting with the job candidate, you have a lot of issues to discuss. As you see it, there are three key issues: salary, signing bonus, and moving expenses.

do They have the same?

Salary

The salary for this position ranges between $50,000 and $70,000 per year. For equity considerations, it is essential that the salary fall somewhere in this range.

Signing Bonus

A signing bonus is a one-time, lump sum payment made by a firm to an employee at the time of hiring. Signing bonuses were originally offered by firms as a special incentive for joining. Often they were used when a company was offering a wage that was below the industry average, so they could offer a competitive package. However, Computron has had a long history of offering very competitive salaries and you don't feel signing bonuses are necessary to attract people to your firm. In fact, when you were hired two years ago, you did not receive a signing bonus.

Of course, you would prefer not to pay a signing bonus, and you do not intend to bring the issue up. However, you know that signing bonuses in your industry are fairly common. The average bonus is $5,000 and you do not want to pay any more than this. However, you know that you can go up to $10,000 if necessary to sign the candidate. Under no circumstances would you give a bonus above $10,000 because this would set a dangerous

[1] A contained area is classified, is kept sanitized, and all personnel and staff wear either scrubs or lab coats.

precedent for future hiring, and you're not authorized to exceed this amount.

Moving Expenses

Your firm is keenly concerned with minimizing the costs of moving expenses for new recruits. This is because of the firm's new initiative to move to a global marketplace and to hire international candidates. It is extremely expensive to pay moving expenses for international hires. However, because of equity issues, it would seem unfair, and perhaps inappropriate, as judged by your legal counsel, to pay moving expenses for domestic hires but not international hires. Therefore, you would like to start a company precedent of not paying moving expenses before you begin to hire international candidates. However, you know that the industry norm is to pay to pack and ship a new hire's belongings, so it may be difficult to avoid paying moving expenses. Below is the list of possible allotments for moving and their cost to you. The cost is calculated in terms of how much it will cost both for the current new hire as well as the precedent it establishes.

Allotment for Moving Expenses	Cost to Computron
No moving expenses	$0
Packing and shipping	-$10,000
Packing, shipping, unpacking	-$12,000
Packing, shipping, unpacking, set-up costs	-$15,000

They do it cheaper themselves - offer to add to salary ?

MEDWARE is important to Computron because it is needed for a new computerized medical application. Your financial analysts have determined that the new MEDWARE program has a value of $2M in sales over the next two years based upon a profit margin of 17.5%. This indicates that profits, exclusive of the hiring salary and other benefits to be negotiated today, are $350,000. The personnel costs associated with this project are the program manager's salary, signing bonus (if applicable), and moving expenses (if applicable).

weird they don't like signing bonus

Thus, when considering your profits from MEDWARE over the next two years, you deduct the program manager's salary for two years, one-time moving expenses, and one-time bonus. Thus, your objective in this employment negotiation is to put together an employment package that will minimize these costs, thus maximizing your profit margin on the MEDWARE program. (For your convenience, a sample worksheet is attached so that you can clearly work through these costs.)

MEDWARE is being designed to work with a new drug that is expected to be a big seller in the pharmaceutical market. The drug is currently under review at the FDA, and is expected to be approved in May. One of your competitors is developing an applications package similar to MEDWARE, but you think that you are a month ahead of them in getting the product to market. You anticipate that the competitor will launch its package at the beginning of May. You are almost positive that Computron can launch MEDWARE by the beginning of April. However, the earlier the project is completed, the more it is worth to you because it allows you to have all of the clinical trials completed before the FDA initially approves the drug. This will give you a huge advantage over your competitor. However, you think it is unlikely that the project will be completed before April. In fact, you think there is only a 10% chance that the project would be completed by February 1st. If it is done by February 1st, this would mean a competitive advantage of $80,000 for your firm.

As you reflect on Computron's growth and history in the past three years, sales have increased, but you are concerned about costs. Your facility is comfortably located in a building that is in the northeastern suburbs. However, you have just learned that your landlord is asking for a $2 per square foot increase in rent beginning in three months. You are also looking into developing a web page for your company. Estimates put the cost at $30,000. haha

are these part of the sum

You and the candidate have mutually decided that if the job is accepted, the start date would be September 1. If you cannot hire the candidate, you have another candidate that you can hire. Although you prefer to hire this candidate, you are reasonably certain that the other candidate would meet most of your needs. You have not yet discussed the compensation package with the other candidate in detail, but based on your preliminary conversations, you feel confident that you could sign the other candidate for a total two-year cost between $120,000 and $140,000. BATNA

<- like start date?

Sample Worksheet *(Example Only!)*

Suppose you agreed to the following terms:

Salary:	$ 69,000
Signing Bonus:	$ 5,000
Moving Expenses:	pack, ship, & unpack

Projected value of MEDWARE project over 2 years:		$ 350,000[2]
1. Less Salary	$ 69,000 over 2 years	- 138,000
	Subtotal	**$ 212,000**
2. Less Signing Bonus		- 5,000
	Subtotal	**$ 207,000**
3. Less Moving Expenses		- 12,000
	Subtotal	**$ 195,000**
4. Other aspects of agreement none?		
	Total Value of Contract to you:	**$ 195,000**

Or non fin?

[2] Based upon $2M in sales over 2 years, and 17.5% profit margin, exclusive salary and benefit issues to be negotiated today.

Does this matter?

Actual Worksheet

Use this page to calculate the total value of the deal to you

Salary:	__________
Signing Bonus:	__________
Moving Expenses:	__________
Other:	__________

Projected value of MEDWARE project over 2 years:			$ 350,000
1. Less Salary	70k over 2 years	-	70 k
	Subtotal		
2. Less Signing Bonus		-	0
	Subtotal		
3. Less Moving Expenses		-	
	Subtotal		5k
4. Other aspects of agreement			
	Total Value of Contract to you:		

month early start date
20k bonus by Feb 1

(2) Discuss

He said down to 65k

no program

Website he mentioned
└ we ~~said~~ needed website

Moving cost
- much lower ~~@~~ 3k on his sheet

I picked ~~$~~5k

He did have a vacation planned
- but hid it

(everyone in the class then showed up)
Claimed door was locked

His paper had a strong desire for signing bonus
on paper (personally he didn't like)

95% chance on Feb 1
└ month early 100% chance

He wanted to finish

(3)

w/ just salery he was above his BATNA

Debrief

BATNA
Canidate ~~[illegible]~~ 100 - 130
Recruiter ~~[illegible]~~ 120 - 140

Always know BATNA
Be willing to walk away

Outcomes

	Sal	Bonus	Moving	
	65	6	10	
	60	7.5	0	Feb 1 bonus
us →	70	0	5	
	58	7	3	1month early +bonus 2/1 free dental ins
	62	10	0	2/1 bonus
	60	6.5	2	Bonus 2/1
	58	8	0	2/1
	70	7	15	2/1 ← outside recruiters BATNA
	70	9	0	2/1 +website ← outside
	~~[illegible]~~ 67	8	10	← outside
	54	10	~~[illegible]~~ 0	+ website

(9)

Salary is purly dist, Recuiter 50-70 / Canidate 60-80) barging range 60-70 / 2GPA

Bonus + Moving are integrative

- can be better off ~~than~~ enlarge case

Why?

Diff valuations / motives for each canidates

A $ of bonus is more than a $ to canidate

Can thump their chests about it

Trade to be made - people value diff things

Constraint is the BATNA

Integration also if people have diff prob on outcomes

└ make a bet / insurance

Website is pure extra

Neither side knows about the needs / skills

if can find it - both are ~~ha~~ better off

(5)

Process

How do you get these things?

~~[illegible]~~ Canidate has convo about their desire
for bonus and their cheaper moving costs

Never set anything in stone till done
Ask if anything to tweak to make both
better off

Start w/ integrative convo - then move to dist.

But ~~[illegible]~~ then don't be a sucker on dist to
maintain relationship

A way to talk about so no confrontational
Going rate
Appeal to a higher principal
through research
(I was too distributal - didn't talk about int as well)

(6)

Neigotation is multidimensional

Scorable in dollars

But most real negiotations are not eaisly scorable.

How do you make a tradeoff?

Think about rel weight of issues

purly subjective

but introspective w/ yourself

Can trade off points

Otherwise make decisions on the fly

Mon Decision Making Exercise

Carter Racing

Decide if to enter a race

MAKING TRADE-OFFS IN COMPLEX NEGOTIATIONS

- SAY THERE ARE THREE ISSUES: COST, QUALITY, DELIVERY

- THINK ABOUT YOUR RELATIVE WEIGHT FOR EACH AT THE OPTIMAL VALUE OF EACH, AND ASSIGN POINTS THAT SUM TO 100. SAY THAT YOU VALUE AS FOLLOWS

  LOWEST COST = 60 POINTS

  BEST DELIVERY TIME = 15 POINTS

  BEST QUALITY = 25 POINTS

NOW, CONSTRUCT A TABLE FOR EACH. YOU MIGHT SAY THAT IF THE BEST COST IS (FOR EXAMPLE) 10 MILLION DOLLARS THE TABLE WOULD LOOK LIKE

$10 MILLION = 60 POINTS
$12 MILLION = 55 POINTS
$15 MILLION = 40 POINTS
ETC

NOTE: YOU ARE ARRIVING AT THESE POINTS BY THINKING ABOUT YOUR RELATIVE VALUATION OF THE DIFFERENT COSTS. THIS IS A SUBJECTIVE PROCESS BUT FORCES YOU TO THINK ABOUT RELATIVE VALUES

NOW DO THE SAME FOR THE OTHER OUTCOMES, E.G. DELIVERY TIME AND QUALITY, WITH THE DELIVERY LOOKING LIKE

FAST DELIVERY = 15 POINTS
……
SLOWEST DELIVERY = SOME POINTS

AND THE SAME FOR QUALITY

BEST QUALITY = 25 POINTS
….
….

YOU ARE NOW IN A POSITION TO VALUE DIFFERENT OFFERS. THAT IS, YOU CAN TRADE OFF POINTS. IF THE COST GOES DOWN BY SOME AMOUNT YOU KNOW WHAT THAT IS WORTH TO YOU IN TERMS OF POINTS AND WHAT YOU'D BE WILLING TO ACCEPT IN TERMS OF A WORSE QUALITY OR DELIVERY

15.301
Comments on the final draft
Jae Ha (jkha@mit.edu)

Plasmeier

- Intro: this is much clearer. Now I see that your question is whether an extern, who stays temporarily at the bottom of hierarchy, can have an influence. However, it is framed in a naïve way ("let's explore"). It would have been better if you gave a baseline expectation in a normal situation and contrast it with your specific case (i.e. is your case counter-intuitive therefore interesting?)
- (strategic) word choice: in page two, you say "it explores the power that externs have." It might not be a good idea to use "power" here because it then it becomes too self-explanatory. You may use other expressions more focused on phenomena—for example, "it explores the extent to which externs can influence organizational processes" or "it explores under what condition it becomes possible that externs join important organizational decisions"..etc.
- Political lens: not sure this is the best place to put how externs ' nature of "short stay" matters. Maybe it is underdeveloped; depending on how you develop, it could be interpreted with political lens.
- Cultural lens: not sure how this is related to externs' ability to make an impact. It would help to link to your original research question in concluding paragraphs of each subsections.
- Political conflict: your analysis is too much focused on explaining the conflict itself. What's more important is the process that you solved those conflicts; how political power game is involved in making an influence.
- Conclusion: clean summary but you can do more than that.

Overall, this is a significant revision. Now you've got a clearer focus as well as more balanced organization. The remaining challenge is to strengthen the introduction part. Keep asking these questions: what is the pattern that we normally expect and what is the difference in your case? Why this could be an interesting case to further analyze? What's puzzling here?

Grading the Revised Individual Team Analysis Paper

2nd draft: The Writing Staff are evaluating your second draft on the criteria below and on how well you responded to first draft comments by TAs and Writing Staff. If, for example, a TA or a Writing Consultant says "I don't understand the point you are making here"— we expect you to clarify that point. If one or both says your organization could be improved, we expect you to organize your second draft better. We may ask you to deepen your analysis or conclusion. *We won't ask you to analyze a different team or organization, but we may focus your attention on different aspects than you chose in the draft.*

Criteria for Evaluating Writing

Format and citation 2 /2 points

- ✓ Cover sheet; in-text citations as needed; and References at end of paper, all in APA style
- Format of paper includes section headings, and is neat and consistent, i.e.:
  - Paper is double-spaced
  - ✓ Paragraphs are indented and there is no extra space between ¶s
  - Headings follow outline on p. 6-7 of Syllabus
  - No humongous headings
  - No enormous spaces between sections

Organization and logic 2.75/3 points

- Paper is complete, and sequence of parts is logical
- Paper has a clear, interesting focus (motivating question) much better
- Key terms are clearly defined
- "Three lenses" are understood and applied appropriately
  - Lenses and their pertinent aspects are explained briefly, citing Carroll as needed not adequately
  - Quotations from Carroll are minimal
- Arguments are supported by sufficient and appropriate evidence
- Readers can see writer thinking about the "three lenses" and how they help understand the real life dynamics of the team, and/or teams in general
- Conclusion goes beyond summary and includes reflection, analysis, and application to current or future teams. better

Use of language 2.75/3 points

- Word choice, phrasing, and sentence structure are correct and effective
- Writing is concise rather than repetitious

Mechanics 1.75 /2 points

- Verb tenses are correct and consistent, as are punctuation, spelling, and use of capitalization Watch typos, esp. missing words
- APA formatting is correct

(over)

Writer: Michael Plasmeier **Reader:** K. Boiko **Total Points:** 9.25

Hi, Michael -
While this draft may not capture all of your experience @ A. V., it is much more clearly & effectively focused than your 1st draft — can you see that? Sections of the paper connect well, & the concl. is solid.

I encourage you to continue to pay attention to phrasing - sometimes it doesn't really state your point clearly — and to making sure sentences link well each to each.

KB

Do Externs Have Power? My Time at Altman Vilandrie

Michael Plasmeier

Massachusetts Institute of Technology

Over IAP, I had the privilege of working for Altman Vilandrie and Company, a Boston-based management strategy consulting firm. As a one-month extern, I was joining the organization at the very bottom of the ladder. Could I still have an impact as an extern?

During my time at Altman Vilandrie, I was staffed on two teams. The first three weeks I worked on a data center market analysis with two other consultants. During the final week, I worked on the competitive analysis for a large multichannel video programming distributor (MVPD) (essentially a cable or satellite provider) with a different, larger team.

This paper analyzes the project teams that I worked on at Altman Vilandrie & Company and it explores the power that externs have. This paper analyses the question using the 3 "lenses" proposed by John Carroll (2006). This paper will use my observations from my month at Altman Vilandrie. Through a strategic design lens, externs have little formal power, as they start at the bottom of the ladder. However, interns can still exert significant political power by influencing other members of the team. Using a political lens, I will focus on a disagreement I had with another member of my team and how I worked to make my ideas heard. Finally, externs contribute to a team's culture. They, along with the other members of the team, bring their experience from previous work to build a team culture.

good - but intro. should also indicate which lens you'll use in depth, & why

Strategic Design Lens

best verb in context?

This section should explicitly state what Carroll means by S.D.

Most companies have a specific organization or hierarchy that divides who does what work. This hierarchy is often referred to as the organizational chart. Management designs the formal structure of a company to help the company achieve its goals and strategies.

In the management consulting industry, companies or other organizations purchase professional services from consulting teams. These teams are usually made up of between 3-7 people and work on a project anywhere from a few weeks to a few months. Unlike many other jobs, consulting works on a project basis – there is a clear start and end to a project. When a project ends, everyone is split up and is reassigned onto a new team.

The consulting industry is very hierarchical in terms of title and rank. People who graduate with an undergraduate degree start as "analysts," a role that is typically occupied for a number years. MBA graduates start as "consultants." Larger projects may be managed by a "project manager." Finally, projects are overseen by "principals." At some firms, there is a strict promotional schedule ~~where~~ That determines when you are eligible for a promotion. At this point (what point?) many firms also have an up or out policy that you must be promoted or let go. Although other companies may have different names for each role, they share a similar hierarchical structure.

← → sentences/ideas don't link well

Each role has a defined set of basic responsibilities. For example, principals are responsible for recruiting business, dealing with clients, and giving the final presentation. They are not generally involved day to day in the project. The principal usually owns the communication with the client. [The principal basically served as the interface between the team and the client.] Analysts are responsible for much of the detailed research that is needed in the project. Primarily, analysts work with Excel, generating complex spreadsheet models. In addition, in many cases, analysts draft copies of slides. I was an analyst extern.

doesn't add

↳ needed in ...

However, with both of the teams I was on at Altman Vilandrie, if needed, people would reach beyond the job description to help out the team. The first team I was on was made up of two consultants. Because they did not have an analyst on their team before I joined, the consultants did the research work. In addition, when a project came close to crunch time, the principal would often pitch in and help with the work.

In addition, on both of teams I was on, we would sometimes discuss issues as a team. At that point, I felt that we were a team of equals – I felt that all members could provide their input on what they thought the problems and solutions were. Despite being hired to do low-level research, the strategic design of an organization still allows externs to contribute to the work. dangling modifier

From this experience, it seemed that that the teams that I worked on had a good mix of hierarchy, but internal flexibility when needed. The hierarchy put newer members closer to the actual work, but when it came time to crunch time, more senior members of the team were willing to help. In addition, the teams still welcomed the opinion of the lowest ranking members of the team. This helped the team achieve the best possible output product.

Political Lens

Individual members of the team had different interests and priorities. Carroll's (2006) political lens decomposes the goals of an organization's goals into the goals of individuals. These may be the same as the organization's goals or they might be separate. From my experience, every member of the team wanted to solve the client's problem. However, different members of the team had different ideas on how to accomplish that. I will speak more about a disagreement I had with a member of my team later in this paper.

The ~~lady~~ woman who was in charge of staffing at the firm was in a position of power. She could make your life fun or miserable depending on what type of project you were staffed on. Thus many people made sure to stay on her good side. A good project might be one that is more interesting or more varied than the one you were working on before. I remember hearing people joking that if you got on her bad side you would be doing straight "due diligences" for several months – a less interesting type of project.

Altman Vilandrie is a "low travel" firm. This means that most people spend most of their days in the office. This is different from other consulting firms. This allows some group relations to form because people saw each other in the office. In particular, people gathered to eat together for lunch. This helped people form groups that lasted beyond single projects. Groups that exist beyond the formal hierarchy help spread information and get things done for the group.

✓

"This" by itself = a vague subject – esp. in successive sentences. It's not easy for readers to see what "This" is.

As an extern, because you recently started, you do not have a group of friends. In addition, because you will be leaving soon, people might be less willing to invest social capital in you to bring you into a group. This makes it challenging to exert political power as an extern.

good

Cultural Lens

Begin by defining C. lens per Carroll, + noting some elements of culture – i.e., don't assume readers are familiar w/ Carroll's concepts or even if they are, that they know what you have in mind

During my month in consulting, I was able to observe the attitudes of management consultants first hand. I observed how consultants present to each other and to the client. I have noticed that the experience ~~has~~ changed how I approach some situations in my life after leaving Altman Vilandrie.

One of the consultants I worked with treated the hierarchy very formally. He only talked to the principal when absolutely necessary. Even though it was only internal, he would still try to prepare polished work for the principal. A lot of time was spent polishing slides, just to change them again later. However, on the other team I was on, people did not seem to share as strong an aversion to talking informally with the people higher up on the hierarchy.

Having a hierarchy allows each person to focus on their part, without becoming too involved in other people's work. However, this hierarchy-reliant culture reduces the cohesiveness between the team members, reducing the flow of information. This might result in a well presented, but poor recommendation to the client.

As an extern on two projects, I realized a difference in culture between the two teams that I was on. Because all of the teams turn over fairly frequently, each team's culture is different. As people move from project to project, they learn and perpetuate certain aspects of team culture. Externs might be able to have some impact on the culture of a group, since some externs have had previous work experience. Externs mostly absorb the culture of a team and the firm in the short time that they are on a team. This makes sense

These comments could be expanded on — people move around, carrying "culture" with them, yet distinct cultures still remain (or emerge) — it's an interesting point

A Political Conflict

During my second project I had a conflict with the senior analyst on my team. He and I had significant disagreements regarding the facts of the project, the direction we should research in, and the emerging recommendation for the project. I felt like we disagreed on almost every aspect. My experience here shows how an extern can still exert influence over the direction of a project.

First, we disagreed about the technical facts of a system. The other analyst thought that something was technically possible, when I was pretty sure it was not. I thought I was better qualified to think about the technical merits of the system. While I had a technical background, the other analyst did not. He was a history graduate from Harvard.

We also disagreed on where to spend research time. I thought that a bit of technical research was important, so that we could better understand our client's motivation in building their product. Understanding their motivation would help us hypothesize about why they were asking the question they hired us to answer and the type of answers that there were really looking for.

The senior analyst and I also disagreed on how to present and format research. He thought that it would be good to have an Excel spreadsheet of the data. He believed that was what the project manager was expecting. I thought using OneNote was a good idea. I tried using Excel, but I just found it too limiting and slow. I switched to OneNote. When I presented my work to the project manager, she really liked the use of OneNote as a research tool.

The senior analyst had power because he had been at the firm for about two years and I was just an extern. In addition, he had been working on the project for a week or two, while I had just joined the project. Perhaps he disagreed with me because he did not want to seem upstaged by an extern.

To try to get my ideas adopted by the team, I needed to convince the team about my point of view. First, I just did things the way I thought was best. This did not take much more additional time and this allowed me to be able to present the team with results. From my experience, showing up with results made it easier to convince people than simply showing up with theories. This is a strategy that does travel :)

I attempted to convince the other analyst on the project that my views were correct. This was difficult because he worked closely with the senior analyst before. Those two were on the project before I started, and they probably worked together before. The other analyst appeared to stay neutral – unwilling to pick a side.

My most successful strategy was That I talked directly to the project manager, bypassing the senior analyst. The project manager liked my ideas and adopted them, shaping the project. By bypassing the senior analyst, I was able to achieve my goal of influencing the project in the direction I thought it should go. I played politics to make my voice heard.

I don't think the senior analyst appreciated me going above him to the project manager. If I was correct in postulating that he did not like getting upstaged by an extern than this strategy might not have been optimal regarding my relationship with him. However, he would likely not be the one who provides a recommendation to the HR committee.

Putting the Lenses Together

During my time at Altman Vilandrie and Company, I saw that externs can actually have substantial power. At first it appears that the structural design and political power works against externs. Externs are starting at the very bottom of the ladder. Externs start without knowing the other people, and must form group memberships. However, this is challenging because they will be leaving again soon. However, the structural design of the organization can empower externs by allowing the best ideas to rise to the top. An extern can still recruit supports and try to influence members of the team to support their point of view. All group members bring their past work experiences to the team in order to form a team culture. Externs contribute to this by bringing their own experiences to the table and learning the culture of consulting, the firm, and the teams they work on.

awkwardly phrased

b

Good!

References

Carroll, J. S. (2006). Introduction to Organizational Analysis: The Three Lenses.

Inside Consulting: My Time at Altman Vilandrie

Michael Plasmeier

Massachusetts Institute of Technology

Over IAP, I had the privilege of working for Altman Vilandrie and Company, a Boston-based management strategy consulting firm. I selected this externship because I wanted to understand how consulting works. I wanted to see if I would enjoy the job full time. In addition, the management consulting industry has a reputation for having high performing teams. I wanted to understand how a consulting team operates and what aspects of the team make it a high performing team. These lessons could be used in the design or evaluations of other teams.

During my time at Altman Vilandrie, I was staffed on three projects. The first two weeks I worked on a data center market analysis with two other consultants. During the third week, I worked on another data center market analysis with one of the consultants I had worked with previously. During the final week, I worked on the competitive analysis for a large Multichannel Video Programming Distributor (MVPD) (essentially a cable or satellite provider) with a different team.

This paper analyzes the project teams that I worked on at Altman Vilandrie & Company and it attempts to answer what aspects make a team high-performing. This paper analyses the teams using the 3 "lenses" proposed by John Carroll (2006) to investigate how the team operates and how those aspects might be considered to be high performing. First, this paper looks at my work experience through a strategic design lens that focuses on the formal structure of the consulting teams I was a member of. This paper then analyzes the teams through a political lens. This paper will focus on a disagreement I had with another member of my team and how I reacted in order to make my ideas heard. Finally this paper will review the culture of the Altman Vilandrie consulting teams I was on.

Author

Comment [1]: Nice that you made it clear what you are going to analyze.

Strategic Design Lens

In the management consulting industry, companies or other organizations purchase professional services from consulting teams. These teams are usually made up of between 3-7 people and work on a project anywhere from a few weeks to a few months. Unlike many other jobs, consulting work on a project basis – there is a clear start and end to a project. When a project ends, everyone is split up and is reassigned onto a new team.

The consulting industry is very hierarchical in terms of title and rank. Undergraduates start as "analysts," a role that is typically occupied for a number years. MBA students start as "consultants." Larger project may then be managed by a "project manager." Finally, projects are overseen by "principals." At some firms, there is a strict promotional schedule where you eligible for a promotion. At this point many firms also have an up or out policy that you must be promoted or let go. Although other companies may have different names for each role, they share a similar hierarchical structure. Each role has a defined set of responsibilities. For example, principals are responsible for recruiting business, dealing with clients, and giving the final presentation. They are not generally involved day to day in the project. Analysts are responsible for much of the detailed research that is needed in the project.

However, at the teams I was on at Altman Vilandrie, there was not a strict division of work. The first team I was on was made up of two consultants. Because they did not have an analyst on their team, the consultants did the research work. In addition, on both of teams I was on, we would discuss issues as a team. At that point, I felt that we were a team of equals – I felt that all members could provide their input on insights on what they thought the problems and solutions were.

Author
Comment [2]: This contradicts the overall structure of this firm. Was it accidental that there was no clear division of work in you teams? Do you think such feature contributed to high performance?

I thought that consulting has a good mix of both hierarchical strictness and internal flexibility in work. The hierarchy puts newer members closer to the actual work, while the more experienced people supervised the work. However, they still welcome the opinion of the lowest ranking members of the team. In addition, the principals pitched in during time crunches and were willing to do work they would not normally do. This helped the team achieve the best possible output product.

Author

Comment [3]: Again, is this specific to your team or to overall organization? If you saw this combination particularly effective, were you able to see higher performance in your team compared to others teams which had only strict hierarchy?

Political Lens

Individual members of the team had different interests and priorities. The political lens decomposes the goals of an organization's goals into the goals of individuals. These may be the same as the organization's goals or they might be separate. From my experience, every member of the team wanted to solve the client's problem. However, different members of the team had different ideas on how to accomplish that. I will speak more about a disagreement I had with a member of my team later in the paper.

Author

Comment [4]: Excellent interpretation of political lens! Individuals might be separated from an organizational goal because they have different ideas (as you wrote). In addition, individuals' different idea might not be simply due to differences in opinion, but because they had other personel intentions (self-interest in promotion or wage etc)

In general, members are motivated by receiving a promotion and/or bonus at the end of the year. Interns and externs are motivated by being offered a full time job. Principals are motivated more directly by attempting to satisfy clients so that they want to rehire the firm. This makes people want to work hard to get the project done well.

After each project, there was a formal evaluation that was done by the person above you in the hierarchy. The evaluations were four pages and contained many subscores that were graded on a 1-5 scale. No subscore I received was above a three; however, I was told that I did very well for an intern. There seems to be a greater context in the way that scores were issued. My score must have been issued in comparison to the scores that my reviewer had previously received himself, previously given, or reviewed. However, the context seemed different from my other experiences with performance evaluation systems on a 1-5 scale. First, the scores were on the low end of the range. From my experience, scores below a 3 are very rare, unless the person do a very poor job. At Altman Vilandrie there seemed to be a "glass ceiling" where interns could not score about a three on any subsection. This points to a larger political context in which the scores were issued.

Evaluations are an important characteristic of high performing teams. It is important that team members know where they can improve. However, team members must be informed about the context in which the scores are issued, so that they can understand the scores.

Cultural Lens

During my month in consulting, I was able to observe the attitudes of management consultants first hand. I observed how consultants present to each other and to the client.

One of the consultants I worked with treated the hierarchy very formally. He only talked to the principal when absolutely necessary. Even though it was only internal, he would still try to prepare polished work for the principal. However, on the other team I was on, people did not seem to share as strong an aversion to talking informally with the people higher up on the hierarchy.

In addition, talking to the client was very formalized. The team would send questions to a single member of the team. He or she would then put the questions together in a single email and send it off to the client.

Having a hierarchy allows each person to focus on their part, without becoming too involved in other people's work. However, a lot of time was spent polishing slides, just to change them again later. In addition, this culture reduces the cohesiveness between the team members, reducing the flow of information. This might result in a well presented, but poor

Author

Comment [5]: As it stands, I am not sure how this can be understood as an example of political lens; it seems like a description of evaluation system. If evaluations are highly important to promotion/bonus and it is done by a hierarchically close person, there seems like some potential conflicts on evaluation decisions.

For example, from a senior's point of view, he might not want his junior getting a too quick promotion and threaten his position not getting a high bonus than him. But at the same time, he has to encourage and appreciate the effort the junior made.
For junior's point of view, it might seem clear that his incentives are highly dependent on his senior supervisor. To guarantee high evaluation, wouldn't he try to make a good personal relationship with his senior?

It would have been better if you put nicely how these different intentions and interests shape the power relationship and contribute to high performance (or it could harm the efficiency, too!)

Author

Comment [6]: Linking back to your analysis in "strategic lens", I hear that the hierarchical structure (which helped the firm to achieve its organizational goal) produced formal, non-interactive culture which is not conducive to high performance. This sounds right.
However, you need supporting evidence for your analysis. Ideally, you need to show two things: first of all, what was the culture and how it became so? (you showed this part) Secondly, then, how does such culture affect the performance of this company?--you might want to write more on this. For example, did you see a problem (or relatively worse outcome) which could have been prevented if there were some interactive communication between employee?

Author

Comment [7]: This does not smoothly link to the previous sentence. This kind of behavior can also happen in a flat/interactive organization. Might be more relevant to "formalized" culture in the earlier paragraph.

recommendation to the client. A high performance team needs to strike the right balance of how much its members interact.

Author
Comment [8]: This is a normative claim. As an analytical writer, you might instead want to say, for example, "from the case of XXX company, lack of personal interaction harms the performance."

A Political Conflict

During my second project I had a conflict with the senior analyst on my team. He and I had significant disagreements in the facts of the project, the direction we should research in, and the emerging recommendation for the project. I felt like we disagreed on almost every aspect. My experience here shows how politics can affect someone's work and prevent a team from reaching its high performing potential.

First, we disagreed about the technical facts of a system. The other analyst thought that something was technically possible; when I was pretty sure it was not. This disagreement annoyed me because I believed the answer was pretty clear. This feeling was exacerbated because I thought I was better qualified to think about the technical merits of the system. While I had a technical background, the other analyst did not. He was a history graduate at Harvard.

Author
Comment [9]: Okay. It seems like a matter you have a complete more knowledge than the senior analyst.
You can give a richer analysis by taking a more neutral, third-person perspective of your experience. If you have more leverage on knowledge, what was the base of his power to contend against you? (I'm pretty sure it's his positional power, which is higher than you.) What's his gain by making such unsupported claims? Was it important to confirm the hierarchical position between employees?

We also disagreed on where to spend research time. I thought that a bit of technical research was important, so that we could better understand our client's motivation of building the system. Understanding their motivation would help us hypothesis about why there were asking the question they hired us to answer and the type of answers that there were really looking for.

The senior analyst and I also disagreed on how to present and format research. He thought that it would be good to have an Excel spreadsheet of the data. He believed that was what the project manager was expecting. I thought using OneNote was a good idea. I tried using Excel, but I just found it too limiting and slow. I switched to OneNote. When I presented my work to the project manager, she really liked the use of OneNote as a research tool.

These incidents caused me to mistrust my other team member. Whenever he was giving me direction on what to work on next, I felt belittled. This was not good for my feelings or for the team.

To try and get my ideas adopted by the team, I talked directly to the project manager, bypassing the senior analyst. The project manager liked my ideas and adopted them, shaping the project. By bypassing the senior analyst, I was able to achieve my goal of influencing the project in the direction I thought it should go. I played politics to make my voice heard

However, the disagreement worked against having a high performance team. In a high performance team, you should have people who disagree. However, team members should never feel like they are not being listened to, or made to feel that they are always wrong. This breeds discontent in the team that reduces the team's effectiveness as communications breaks down. Team members should also recognize when a person has expertise in an area. When a team member with background in an area is confident about an answer, then that answer should be accepted or actual research should be conducted. Teams should feel comfortable experimenting with new ways of doing things, in case a more efficient method could be found. In order to think about different ways of accomplishing a task, everyone on the team should know the goal that the group is trying to achieve.

Putting the Lenses Together

During my time at Altman Vilandrie and Company, I saw aspects contributing to and detracting from a high performance team. The structural design of consulting teams is almost ubiquitous across the consulting industry. Team members are motivated by trying to get to the next level of the hierarchy. The hierarchical design allows each team member to focus on their section when preparing work, but the collective intelligence of the team is used when solving

Author
Comment [10]: You played a power game here! You were approved by a higher person in the organization. Does he care about the relationship with the project manager? If so, how did he react to you after that?

Author
Comment [11]: I'm not following this claim

Author
Comment [12]: Again, you are putting to normatively

Author
Comment [13]: Nice integration of your analysis (particularly strong in the intro). Would have been better to give your overall assessment. You saw some element contributing to high performance and some other elements against the performance. Taking these together, what is the "net" ?; Would you call this company a high performance company? Why?

Author
Comment [14]: Be careful about the unit of analysis. Before you use team/organization (company) each time, think about following things: Is your focus the whole company or the team that you worked for? Is your team a general case of your company?

problems or when the team is up against a deadline. Teams cannot be considered only as a whole, but must also be considered as a group of individuals. Each team member has their own idea about how they think the project should end up. Team members can use politics – such as bypassing a layer of the hierarchy – in order to get their view adopted. On one hand, organizational tools, such as personal evaluations are helpful to assess team members' performance. However, team members must be aware of the context that the scores are issued in. What might be a good score in one place is a very bad score elsewhere. Overall, by looking at organizations from different lenses, one can better understand how an organization operates and what aspects contribute to an organization's success.

Author
Comment [15]: normative

References

Carroll, J. S. (2006). Introduction to Organizational Analysis: The Three Lenses.

Individual Paper - Grading Template

Introduction ≈ 1 page 1 **/ 2 points**

- Describe the organization or team
- Describe your role in it
- What's interesting to think about regarding this organization/team? This is the focus of your paper.
- Why would it be worthwhile to think about this aspect?
- Which lens—strategic, political, or cultural—will you apply to analyze this aspect of your chosen organization/team?

a bit unclear + less motivated

The 3 lenses ≈ 3-4 pages 2.5 **/ 3 points**

- Analyze the organization/team in terms of each one of the 3 lenses.
- Use the bullet points at the end of each section of Prof. Carroll's article to structure your analysis.
- Briefly define the three lenses and cite the literature that you use. ✓
- Don't let your analysis become a mere listing of points.
- What's interesting? Things that are exemplary, contradictory, go against the grain of other similar organizations/teams; sources of conflict; aspects that support excellence, etc.

Close-up: 1 lens ≈ 3-4 pages 4 **/ 4 points**

- Reintroduce the aspect of the organization/team you are focusing on—the issue at hand—taking a ¶ or so to expand on why it is worth considering.
- Briefly explain why you picked a particular lens to apply to this issue.
- Analyze in depth, using the lens you've chosen.
- Make sure that readers understand the source of your knowledge about the organization/team—personal experience or observation? Something someone told you? A statement in the organization's annual report? A news item?
- Make sure that your points are linked in a narrative—a narrative that builds toward a summative evaluation of the aspect you are considering.

Conclusion ≈ 1-2 paragraphs 1 **/ 1 point**

- Begin with a 2-3 sentence summary of your paper.
- Reflect on the usefulness of the 3 lenses for analyzing your organization/team, and the single lens for understanding the particular aspect you chose to consider. What have you learned by applying these tools? What is left out? What new questions does the analysis raise for you?

Total: 8.5 **/ 10 points**

Mike, there are alot of good thoughts here!
I'm sure you'll benefit by starting w/ a clear focus.
Also, try not to be ~~to~~ normative in writing academic papers.
(I didn't deduct for this, though :)) —Jae

Michael Plasmeier

Inside Consulting: My Time at Altman Vilandrie ✓ while your title is OK, it could be even more focused - e.g., it could refer to the 3 lenses analysis

Michael Plasmeier

Massachusetts Institute of Technology

note: ✓ = OK, good
x = error

Over IAP, I had the privilege of working for Altman Vilandrie and Company, a Boston-based management strategy consulting firm. I selected this externship because I wanted to understand how consulting works. I wanted to see if I would enjoy the job full time. In addition, the management consulting industry has a reputation for having high performing teams. I wanted to understand how a consulting team operates and what aspects of the team make it a high performing team. These lessons could be used in the design or evaluations of other teams.

During my time at Altman Vilandrie, I was staffed on three projects. The first two weeks I worked on a data center market analysis with two other consultants. During the third week, I worked on another data center market analysis with one of the consultants I had worked with previously. During the final week, I worked on the competitive analysis for a large Multichannel Video Programming Distributor (MVPD) (essentially a cable or satellite provider) with a different team.

lower case

abbrev. is CAP but not the individual words

This paper analyzes the project teams that I worked on at Altman Vilandrie & Company and it attempts to answer what aspects make a team high-performing. This paper analyses the teams using the 3 "lenses" proposed by John Carroll (2006) to investigate how the [each?] team operates and how those aspects might be considered to be high performing. First, this paper looks at my work experience through a strategic design lens that focuses on the formal structure of the consulting teams I was a member of. This paper then analyzes the teams through a political lens. This paper will focus on a disagreement I had with another member of my team and how I reacted in order to make my ideas heard. Finally this paper will review the culture of the Altman Vilandrie consulting teams I was on.

using which lens up close, & why?

Strategic Design Lens

In the management consulting industry, companies or other organizations purchase professional services from consulting teams. These teams are usually made up of between 3-7 people and work on a project anywhere from a few weeks to a few months. Unlike many other jobs, consulting work on a project basis – there is a clear start and end to a project. When a project ends, everyone is split up and is reassigned onto a new team.

x phrasing

The consulting industry is very hierarchical in terms of title and rank. Undergraduates start as "analysts," a role that is typically occupied for a number years. MBA students start as "consultants." Larger project may then be managed by a "project manager." Finally, projects are overseen by "principals." At some firms, there is a strict promotional schedule where you eligible for a promotion. At this point many firms also have an up or out policy that you must be promoted or let go. Although other companies may have different names for each role, they share a similar hierarchical structure. Each role has a defined set of responsibilities. For example, principals are responsible for recruiting business, dealing with clients, and giving the final presentation. They are not generally involved day to day in the project. Analysts are responsible for much of the detailed research that is needed ~~in the~~ for projects.

s ? what does this word relate to

do you mean undergrads still in college? – i.e., you "jump" from in-college to MBA

However, at the teams I was on at Altman Vilandrie, there was not a strict division of work. The first team I was on was made up of two consultants. Because they did not have an analyst on their team, the consultants did the research work. In addition, on both of teams I was on, we would discuss issues as a team. At that point, I felt that we were a team of equals – I felt that all members could provide ~~their~~ input ~~on~~ insights on ~~what they thought the~~ problems and solutions ~~were~~.

a tad confusing – you were on 3 teams, no?

less wordy

refers to what? I don't see a time scheme in previous sentences

From this experience, it seemed that...

(sometimes more words make points clearer)

I thought that consulting has a good mix of both hierarchical strictness and internal flexibility in work. The hierarchy puts newer members closer to the actual work, while the more experienced people supervised the work. However, they still welcome the opinion of the lowest ranking members of the team. In addition, the principals pitched in during time crunches and were willing to do work they would not normally do. This helped the team achieve the best possible output product.

x tenses

Political Lens

Individual members of the team had different interests and priorities. Carroll's (2006) The political lens decomposes the goals of an organization's goals into the goals of individuals. These may be the same as the organization's goals or they might be separate. From my experience, every member of the team wanted to solve the client's problem. However, different members of the team had different ideas on how to accomplish that. I will speak more about a disagreement I had with a member of my team later in the paper.

remind readers that this is Carroll's idea.

In general, members are motivated by receiving a promotion and/or bonus at the end of the year. Interns and externs are motivated by being offered a full time job. Principals are motivated more directly by attempting to satisfy clients so that they want to rehire the firm. This makes people want to work hard to get the project done well.

What?

Wordy ~ can you be more concise?

After each project, there was a formal evaluation that was done by the person above you in the hierarchy. The evaluations were four pages and contained many subscores that were graded on a 1-5 scale. No subscore I received was above a three; however, I was told that I did very well for an intern. There seems to be a greater context in the way that scores were issued.

unclear

?

My score must have been issued in comparison to the scores that my reviewer had previously received himself, previously given, or reviewed. However, the context seemed different from

Why assume this rather than comparison w/ other externs & interns? It sounds like the score meant something different to you & to the firm.

my other experiences with performance evaluation systems on a 1-5 scale. First, the scores were on the low end of the range. From my experience, scores below a 3 are very rare, unless the

x person do a very poor job. At Altman Vilandrie there seemed to be a "glass ceiling" where interns could not score about a three on any subsection. This points to a larger political context in which the scores were issued. unclear; sharpen

A good process is ~~E~~valuations ~~are~~ an important characteristic of high performing teams. It is important that team members know where they can improve. However, team members must be informed about the context in which the scores are issued, so that they can understand the scores.

Cultural Lens

During my month in consulting, I was able to observe the attitudes of management consultants first hand. I observed how consultants present to each other and to the client.

One of the consultants I worked with treated the hierarchy very formally. He only talked to the principal when absolutely necessary. Even though it was only internal, he would still try ✓ to prepare polished work for the principal. However, on the other team I was on, people did not seem to share as strong an aversion to talking informally with the people higher up on the ✓ hierarchy.

which team? all?

In addition, talking to the client was very formalized. The team would send questions to a single member of the team. He or she would then put the questions together in a single email and send it off to the client.

Having a hierarchy allows each person to focus on their part, without becoming too involved in other people's work. However, a lot of time was spent polishing slides, just to change them again later. In addition, this culture reduces the cohesiveness between the team members, reducing the flow of information. This might result in a well presented, but poor

refers to what?

Relates to communication?

recommendation to the client. A high performance team needs to strike the right balance of how much its members interact. This seems like SD more than Culture

A Political Conflict

During my second project I had a conflict with the senior analyst on my team. He and I had significant disagreements regarding in the facts of the project, the direction we should research in, and the emerging recommendation for the project. I felt like we disagreed on almost every aspect. My experience here shows how politics can affect someone's work and prevent a team from reaching its high performing potential.

x comma splice

First, we disagreed about the technical facts of a system. The other analyst thought that something was technically possible; when I was pretty sure it was not. This disagreement annoyed me because I believed the answer was pretty clear. This feeling was exacerbated because I thought I was better qualified to think about the technical merits of the system. While I had a technical background, the other analyst did not. He was a history graduate from at Harvard.

x word choice

We also disagreed on where to spend research time. I thought that a bit of technical research was important, so that we could better understand our client's motivation of building the system. Understanding their motivation would help us hypothesis about why x there were asking the question they hired us to answer and the type of answers that there were really looking for.

The senior analyst and I also disagreed on how to present and format research. He thought that it would be good to have an Excel spreadsheet of the data. He believed that was what the project manager was expecting. I thought using OneNote was a good idea. I tried using Excel, but I just found it too limiting and slow. I switched to OneNote. When I presented my work to the project manager, she really liked the use of OneNote as a research tool.

These incidents caused me to mistrust my other team member. Whenever he was giving me direction on what to work on next, I felt belittled. This was not good for my feelings or for the team. Do you think it caused the sr. analyst to mistrust you? to whom did you report?

To try ~~and~~ to get my ideas adopted by the team, I talked directly to the project manager, bypassing the senior analyst. The project manager liked my ideas and adopted them, shaping the project. By bypassing the senior analyst, I was able to achieve my goal of influencing the project in the direction I thought it should go. I played politics to make my voice heard.

However, the disagreement worked against having a high performance team. In a high performance team, you should have people who disagree. However, team members should never I'm not sure the "lenses" or any other management tool feel like they are not being listened to, or made to feel that they are always wrong. This breeds can guarantee outcomes re: individual feelings discontent in the team that reduces the team's effectiveness as communications breaks down. Team members should also recognize when a person has expertise in an area. When a team member with background in an area is confident about an answer, then that answer should be accepted or actual research should be conducted. Teams should feel comfortable experimenting with new ways of doing things, in case a more efficient method could be found. In order to think about different ways of accomplishing a task, everyone on the team should know the goal that the group is trying to achieve. This ¶ doesn't seem focused on a political point

Putting the Lenses Together

During my time at Altman Vilandrie and Company, I saw aspects contributing to and detracting from a high performance team. The structural design of consulting teams is almost The same x usage - unclear ubiquitous across the consulting industry. Team members are motivated by trying to get to the next level of the hierarchy. The hierarchical design allows each team member to focus on their section when preparing work, but the collective intelligence of the team is used when solving problems or when the team is up against a deadline. Teams cannot be considered only as a whole, but must also be considered as a group of individuals. Each team member has their own idea about how they think the project should end up. Team members can use politics – such as bypassing a layer of the hierarchy – in order to get their view adopted. On one hand, organizational tools, such as personal evaluations are helpful to assess team members' performance. However, team members must be aware of the context that the scores are issued in. What might be a good score in one place is a very bad score elsewhere. Overall, by looking at organizations from different lenses, one can better understand how an organization operates and what aspects contribute to an organization's success.

In this paper, you seem to slip back & forth between analyzing the teams of A.V., & a whole industry – the consulting industry.

References ✓

Carroll, J. S. (2006). Introduction to Organizational Analysis: The Three Lenses.

Evaluating the Individual Team Analysis Paper

1st draft: TAs will give you comments and a grade for content, including completeness. Communication Staff will give you comments and a mark—ranging from a √+ (excellent) to zero—indicating how much work remains to be done for revision. Criteria for evaluating writing are given below.
2nd draft: The Writing Staff will evaluate your second draft on these same criteria and on how well you responded to first draft comments by TAs and Writing Staff. If, for example, a TA or a Writing Consultant says "I don't understand the point you are making here"— we expect you to clarify that point. If one or both says your organization could be improved, we expect you to organize your second draft better. We may ask you to deepen your analysis or conclusion. *We won't ask you to analyze a different organization, but we may focus your attention on different aspects than you chose in the draft.*

Criteria for Evaluating Writing

Format and citation (2 point)

OK!

- Cover sheet; in-text citations as needed; and References at end of paper, all in APA style
- Format of paper includes section headings, and is neat and consistent, i.e.:
  - Paper is double-spaced
  - Paragraphs are indented and there is no extra space between ¶s
  - Headings follow outline on p. 6-7 of Syllabus
  - No humongous headings
  - No enormous spaces between sections

Organization and logic (3 points)

- Paper is complete, and sequence of parts is logical
- Paper has a clear, interesting focus (motivating question) could be more effectively & clearly focused
- Key terms are clearly defined
- "Three lenses" are understood and applied appropriately
  - Lenses and their pertinent aspects are explained briefly, citing Carroll as needed
  - Quotations from Carroll are minimal
- Arguments are supported by sufficient and appropriate evidence even more evidence would strengthen points
- Readers can see writer thinking about the "three lenses" and how they help understand the real life dynamics of the team, and/or teams in general
- Conclusion goes beyond summary and includes reflection, analysis, and application to current or future teams.

Use of language (3 points)

- Word choice, phrasing, and sentence structure are correct and effective a few usage errors
- Writing is concise rather than repetitious writing is often wordy

Mechanics (2 points)

- ✓ Verb tenses are correct and consistent, as are punctuation, spelling, and use of capitalization just a few errors
- ✓ APA formatting is correct

(see over)

Writer: Michael Plasmeier **Reader:** K Boiko **Mark:** ✓

Hi, Michael-

Consulting is an interesting topic, & your paper is a good start. I feel, though, that your focus isn't clear: is it a whole industry, a company, or a team you are analyzing? You mention 3 teams up front, but seem only to distinguish between 2.

You were at A.V. a relatively short time, & I think it would be OK to aim for hypotheses about the co. & teams rather than hard & fast conclusions.

Also, I suspect your paper would be more effective if you used ¶s more strategically — i.e., really develop 1 clear topic per ¶.

Language: mostly clear, occasionally wordy. Also, watch inserting phrases like "at that point" that don't have a clear referent on the page.

Let me know if you have any questions —

KB

15:301 Recitation

4/6

~~Analyze~~

Today: 10 pg draft due

Can work more over the weekend

Upload electronic version as well

Analyzing Quant Data

Theory

Statistics - apply the field

Variables - discrete or continuous

Code things like race into codes 1, 2, etc

Want to communicate the distr. of

Explatory Data analysis

- first look at each variable by itself (univariet)
- then look at relationship b/w the slides (bivariet)

(2)

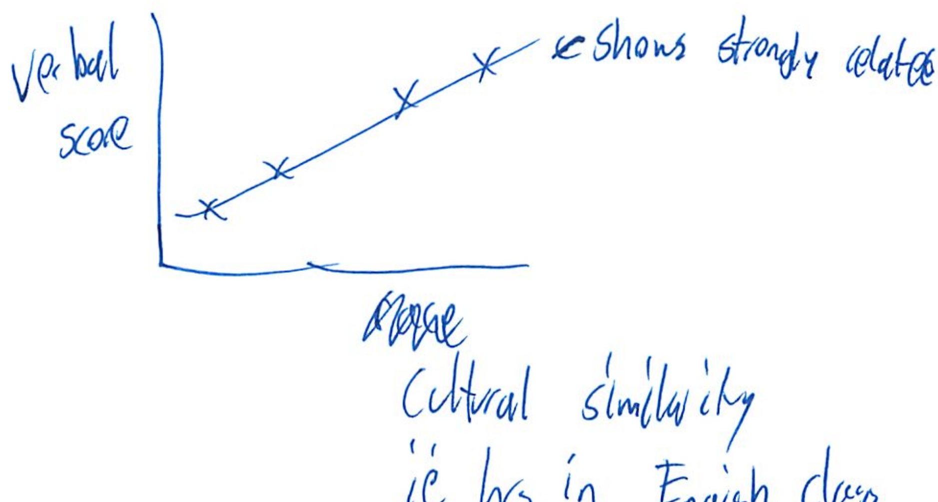
Graphic ways to show 1 variable

Histogram

- shape
- center
- spread

(~~[illegible]~~ This is too simple - I want to get better at this - but this is too simplistic Need to get better at the stat tools)

Then compare verbal score to cultural bias



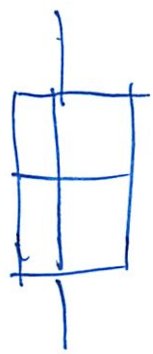
3

Normal dist → bell shaped

Spread

- min
- medan
- max
- st dev

Box plots



More advanced tests later

(She didn't realize we saw this in middle school

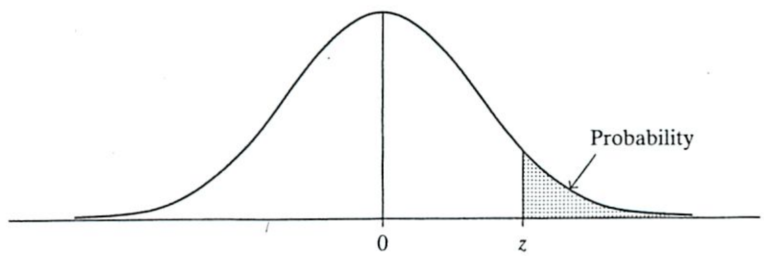
"Are you familiar w/ median ...")

Density curves

- add to 1

(And our paper intro was pretty simplistic)

TABLE A: Normal curve tail probabilities. Standard normal probability in right-hand tail (for negative values of z, probabilities are found by symmetry).



z	Second Decimal Place of z .00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641
0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
0.7	.2420	.2389	.2358	.2327	.2296	.2266	.2236	.2206	.2177	.2148
0.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681
1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559
1.6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455
1.7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
1.8	.0359	.0352	.0344	.0336	.0329	.0322	.0314	.0307	.0301	.0294
1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0239	.0233
2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110
2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0048
2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
2.7	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
2.9	.0019	.0018	.0017	.0017	.0016	.0016	.0015	.0015	.0014	.0014
3.0	.00135									
3.5	.000233									
4.0	.0000317									
4.5	.00000340									
5.0	.000000287									

Source: R. E. Walpole, *Introduction to Statistics* (New York: Macmillan, 1968).

4

(Handed out a normal table)

Data collected is ideally bell shaped

Differences b/w spread and mean

- how many st devs something is from

68 - 95 - 99.7

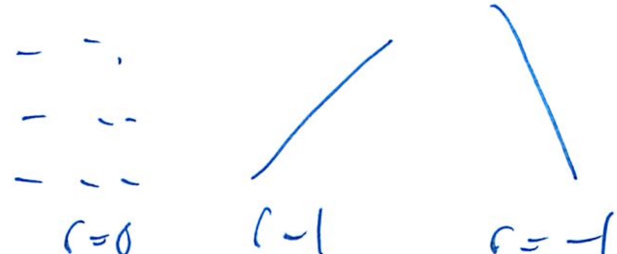
σ 2σ 3σ

Relationship b/w 2 variables → bivariate analysis

Scatter plot

Correlation -1 to 1

- how close is it to a line



$r=0$ $r \sim 1$ $r=-1$

5

Regression for when 1 variable explains/predicts another
Two-way table describes two discrete values

Tools
Excel - basic stats
SPSS
Stata) other widly known stat programs
- write .do code
- can encode data as enum (value lable)
sum educ
sum educ, detail
for encoded table
Use tab race
for freq of response
hist educ - for continous

6

Can impose binning

hist educ, bin(10)

↑ hence 10 bins

Scatter

- shows relationship b/w 2

Corr income educ

to make the #

reg income incomp

- not covered today

tab race sex

↑ both discrete

bysort . race i sum prestige

- conditional table

15.301 Recitation April 6th

Analyzing Quantitative Data II

Sources:

Babbie, Earl. 2007. *The Practice of Social Research*. Belmont, CA: Thomson Wadsworth.

Moore, David S. 2000. *The Basic Practice of Statistics* (2nd ed.). New York, NY: Freeman & Company.

Statistical Inference

- When we select a sample, we know the responses of the individuals in the **sample**. Often, we are not content with information about the sample. We want to *infer* from the sample data some conclusion about a wider **population** that the sample represents.
- **Statistical inference** provides methods for drawing conclusions about a population from sample data.
- We cannot be certain that our conclusions are correct – a different sample might lead to different conclusions. Statistical inference uses the language of probability to say how trustworthy its conclusions are.

Statistical Inference (cont'd)

- The two most common types of statistical inference are:
  - confidence intervals
  - significance tests
- Both types of inference are based on the **sampling distribution** of statistics. That is, both report probabilities that state what would happen if we used the inference method many times.
- Note: Inference is most reliable when the data are produced by a properly randomized design. Statistical tests and confidence intervals cannot remedy basic flaws in producing the data.

Sampling Distributions and the Law of Large Numbers

- **Law of Large Numbers**: As the number of observations drawn at random from a population increases, the mean $\bar{X}$ of the observed values gets closer to the mean μ of the population.
- What if our sample is small? What can we say about $\bar{X}$ from 10 subjects as an estimate of μ? We ask: "What would happen if we took many samples of 10 subjects from this population?"
- The **sampling distribution** of a statistic is the distribution of values taken by the statistic in all possible samples of the same size from the same population.

4/6

Confidence Intervals

- Example: The president of a large community college wishes to estimate the average distance students travel to campus. A sample of 64 students who commute to campus was randomly selected and yielded a mean of 35 miles and a standard deviation of 5 miles.
- How accurately does the mean that our sample yielded represent the population mean?
- Confidence interval: estimate ± margin of error
- Tradeoff between accuracy and confidence.
- Most commonly: 90%, 95%, 99% confidence

CLT and Z-scores

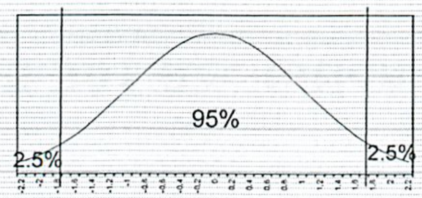
Some things that we need to know before we learn how to calculate confidence intervals:

- **Central Limit Theorem (CLT)**: When n is large, the sampling distribution of the sample mean $\bar{x}$ is approximately normal.
- "large" – rule of thumb: more than 30 observations
- **Standardizing**: As the 68-95-99.7 (slides March 20th) rule suggests, all normal distributions share many common properties. In fact, all normal distributions are the same if we measure in units of size σ about the mean μ as the center. Changing to these units is called *standardizing*. A z-score tells us how many standard deviations the original observation falls away from the mean, and in which direction.

$$Z = \frac{(X - \mu)}{\sigma}$$

CLT and Z-scores (cont'd)

- The standard normal distribution has a mean of 0 and a standard deviation of 1.
- What do "95% confidence" and "$z_{a/2}$=1.96" (see next slide) mean? Practice using the z-table.



Confidence Intervals (cont'd)

- Example on previous slide. Construct a 95% confidence interval estimate for the true mean distance commuting students travel to campus.
- We are given that:
  $\alpha = 0.05$
  $z_{a/2}=1.96$
  $\bar{x} = 35$
  $s = 5$
  $n = 64$
  $\sigma_{\bar{x}} = s/\sqrt{n}$
- Calculating: 35 ± 1.96 x 0.625 = 35 ± 1.225. That is, we are 95% confident that the average distance will lie between 33.775 and 36.225 miles.

Significance Tests

- *Confidence intervals* are one of the two most common types of statistical inference. Use a confidence interval when your goal is to estimate a population parameter. The second most common type of inference, called *tests of significance*, has a different goal: to assess the evidence provided by data about some **claim** concerning the population.

- An example: Manufacturers test new colas for loss of sweetness before marketing them. Tasters give a "sweetness score" of 1 to 10 to a sample of 10 colas and evaluate the same colas again after 4 months. Suppose that their scores have a mean of 0.3, when a mean of 0 means no loss in sweetness.
  - Is this a big enough difference to claim that colas lose sweetness in storage or is it an artifact of the particular samples and tasters that were used?

Significance Tests (cont'd)

- Some vocabulary:

  In our example, we are seeking evidence for a loss in sweetness. The **null hypothesis** says "no loss" on the average in a large population of tasters. The **alternative hypothesis** says "there is a loss." So the hypotheses are:

  $H_0 : \mu = 0$

  $H_a : \mu > 0$

- The probability that the observed outcome would take a value as extreme or more extreme than that actually observed is called the **P-value** of the test. The smaller the P-value is, the stronger is the evidence against H_0 provided by the data.

Significance Tests (cont'd)

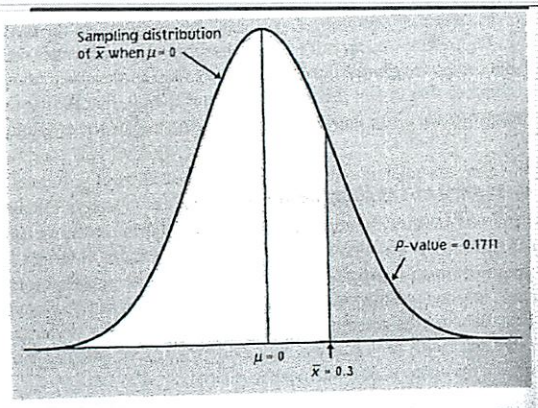


Figure 6.10 *The P-value for the result $\bar{x}$ = 0.3 in the cola taste test. The P-value is the probability (when H_0 is true) that $\bar{x}$ takes a value as large or larger than the actually observed value.*

The figure shows the P-value when 10 tasters give a mean sweetness loss $\bar{x}$=0.3. It is the probability that, if μ=0 is true, we observe a sample mean at least as large as 0.3. This probability is P=0.1711. That is, we would observe a sweetness loss this large or larger about 17% of the time, just by the luck of the draw in choosing 10 tasters, even if the entire population of tasters would find no loss on average. A result that would occur this often is not good evidence against H_0.

Note: We assume a sampling distribution of $\bar{x}$ for 10 tasters that is normal and has (if Ho is true) μ=0 and st. dev. = 0.316. From that we can calculate the z-score (formula slide 6).

Significance Tests (cont'd)

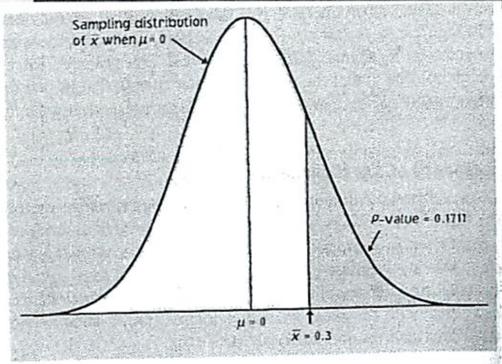


Figure 6.10 *The P-value for the result $\bar{x}$ = 0.3 in the cola taste test. The P-value is the probability (when H_0 is true) that $\bar{x}$ takes a value as large or larger than the actually observed value.*

If the tasters had found a mean sweetness loss $\bar{x}$=1.02, the P-value would have been P=0.0006. This means that we would very rarely observe a sample sweetness this large if H_0 was true. The small P-value provides strong evidence against H_0 and in favor of H_a.

The decisive value of P is called the *significance level*. We write it as α. If we choose α = 0.05, we are requiring that the data give evidence against H_0 so strong that it would happen no more than 5% of the time when H_0 is true.

15.301

4/9

(1 min late)
(Got made fun of)

Carter Racing

What are the items

This is the big race
- TV, etc

Could you get $ if race otherwise

: Race + not hard

What are the costs for each

All 4 other people said No in my group

2 Groups Yes

3 Groups No

Yes: Its sports - you need to race

This is from a real case

②

Video of actual decision

Q: What was their thought process

It was actually the Challenger Space Ship

Change Launch Commit criteria?

Know low temp is a factor

Big implications

Where is the connection

What does soot color mean?

Don't really have enough data

Also happened at 75°

Qualify by Contract 40°-90°

Why not brought up before?

Contractor relied on on

(3) Everone has same goals

~~[illegible]~~

?Only recommend if good data

Won't ~~[illegible]~~ override ~~[illegible]~~ recomendation

Putting them all in their hands

More a management decision

Safer at >53°

But need to go w/ for management ~~[illegible]~~

Allow persople to disagree

No one did

(I would said safer, point at how much risk to take

Human lives - so smaller risk tolerance)

"Towards the end of the discussion

Post

But case had now or never

I said diff risk amts

Is drivers' life on the line? in race

Data didn't draw successes

(4)

Asked wrong qu
    Conditional on temp, prob of erosions goes ↑
    Looked at wrong qu

Prof: Fund mistake was in how they made a decision ~~decision~~

- High Stakes, High Presure env
    - public presure
    - already pushed back late
- Disparate Goals
    - Morton-Thiokol - Can't disappoint client
- Incomplete + Ambigious Data
    - That's life
- Poor group process
    - dis. unstructured
    - no clear leader
    - grp too big

(5)

[illegible] - No explicit cost benefit/analysis

- bullying, emotional
- not problem solving
- data not presented clearly

Book: The Challenger Launch decision

L movie accurate

Prof: - emotional appeal stupid

---

2 ways to think about

Advocacy vs inquery

Advocacy	inquery
- trying to win	- problem solving
- get converts	- goal: get collective sol
- others are competitors	- reveal gaps
- hide gaps	- examine dissent
- suppress dissent	

6

Set the stage for problem solving

Help people feel safe to present disenting views

Assess your + group's orentation

Q: What was 12 Angry Men

Created inquery setting

Then much more aggressive at the end

Was he sincere at inquery?

- Not really - was tatic
- But did help get to the situation

Sometimes people have an agenda but appear integrative

Presentation of duty

└ No one thought clearly about it

Why not?

- Pressure
- "I want to win" mindset

7

So wrong mindset heading in

Wed: Careers

2 chaps about managerial careers

The process of climbing the ladde

WHAT WENT WRONG

High Stakes, High Pressure Environment
- --public pressure
- --had been multiple delays
- --discussion late at night

Disparate Goals/Interests
- --Morton-Thiokol didn't want to disappoint NASA
- ---NASA: avoid more embarassment

Incomplete and Ambiguous Data

Poor Group Process
- --discussion unstructured
- --no clear leader
- --group too large
- --no discussion of costs/benefits of going and not going
- --bullying, emotional
- --not problem solving
- --Boisjoly doesn't present data clearly

ADVOCACY V. INQUIRY

ADVOCACY	INQUIRY
--aim is to win, get converts	--put forward your view as partial, ask about others
--forcefully present your view	--goal is collective solution
--view others as competitors	--others are colleagues
--hide gaps in your case	--reveal gaps in your case
--suppress dissent, find it annoying	--examine dissent

CREATING AN INQUIRY PROCESS

Setting the stage
- Build a climate of psychological safety
- Frame the group decision -making task as a collective learning process

Leading the discussion
- Promote inquiry, seek input, weigh issues together
- Continually assess your own and the group's orientation

Reviewing the process
- How did we do?
- What should we keep?
- What can we do better?

Read 4/9

Men and Women of the Corporation

Rosabeth Moss Kanter

BasicBooks
A Division of HarperCollins*Publishers*

yeri

Read 4/12
Late

MORAL MAZES

The World of Corporate Managers

Robert Jackall

OXFORD UNIVERSITY PRESS
New York Oxford

How to get ahead

L How orgs work

Both of the readings were ethnographies

L Go in depth into what you are reading

Two we read are famous

- Motivation
- Moving Ahead
- Nature + Consequences of Failure

What drives people?

L promotion

Moving up (I called in Level up)

Both were written 20 years ago

Today:

Equity - having something of your own

Moving around orgs while rising

2

Job Tenure has fallen

People want to job hop

Focus on

- Money
- Job duties - doing cool stuff
- Power

Has this gone away?

Nope

Motivations are now more diverse

Feel powerful + more important

Gain recognition

Economist POV

HR School of Thought → succession charts, etc

Ability tournament

└ promotion

(3)

Just better - doesn't ~~know~~ matter how much better

How optimum outcome is achieved

Ability / Merit is very ambigious

Kanter / Jackell think its a lot more about
- Social skills
- luck
- etc

Jackell's World

Performance + ~~[illegible]~~ accomplishments only get you so far
Basic confidence is min req
Also need social skills
- appearence (dressing well & picking up ~~[illegible]~~ cues)
- wear a mask → self reg expression
  - actors

Get along
- long hrs
- work in groups
- ~~[illegible]~~ suck up
- happy & upbeat

(4)

Or Tangental to can you do a job

I said this is good at MIT

Student: Like Peck in 12 O Clock High

- forces himself to be inauthentic

Part is self selecting

fewer rules apply in academia

people go into this

is optimal in some sense

Jackell is deeply cynical

↳ inauthentic

Need mentor / patron

Part of a clique

Warfare - if your ~~[illegible]~~ boss's rival gets ahead, your damaged

Is ~~[illegible]~~ all this stuff "merit"

5

Jachel says nothing about optimality

We don't if this co doing well

Kanter / Inesco

Opp breeds more opp

- ambitious
- moving up gets you noticed

Failure breeds more failure

- get stuck

Some social process - not a tournament

"Fast track" - identified early

↓

Self fulfilling prophecy

get more responsibility

Stuck

- no ladder
- wrong route
- ind failure

(6)

But then change ~~and~~ self
- disengagement
- looking to peers for satisfaction
- "its other people's fault"
- conservative resistance

Story about path dependence

Gender dynamics
- She writes about this

its Social dynamics in gender

Jackell ; Drones
- dehumanizes
- deeply cynical

Firm's Goal

Get people working in right direction

7

Canter: Structure creates behavior

People not intrinsically
Their social context affects their behavior

Jackall: People are gaming the system

Both True

Prof: Why management is so hard!

How to get people to work in firms' interest

pay
benefits
promotion
monitoring
culture

Problems today: Orgs flatter

Harder to move up
So how motivate people?

- intrinsic → better proj
- bonus

- praise
- recognition

Find out why they want to be promoted

(8)

But Saleries are expensive!

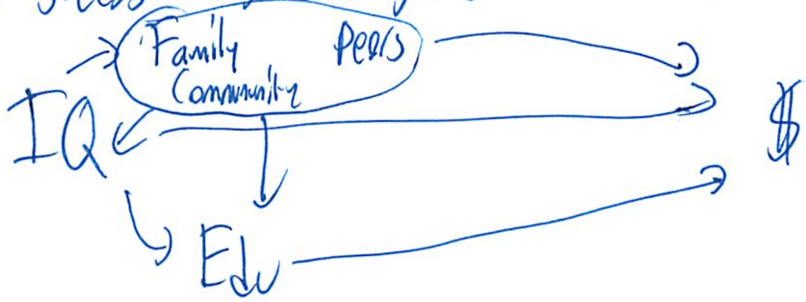
Prove co is best in its field

For you Whats the game?

How do you play the game?

Research on who gets ahead

Define sucess as earnings (for research)



Measure each path

Whats important and whats note

Note not race, gender

Study of white men in Wisconsin

R^2 = % of varience our model can explain

= .\$27 ← not that much 70% unexplainable

9

IQ alone = 9%

A lot of ~~stuff~~ ~~other~~ factors we can't explain/measure

└ Could be luck

THEMES

- WHAT DO WE LEARN ABOUT MOTIVATION?
- WHAT DO WE LEARN ABOUT THE PROCESS OF MOVING AHEAD?
- WHAT DO WE LEARN ABOUT THE NATURE AND CONSEQUENCES OF FAILURE?
- WHAT ARE PEOPLE TRYING TO ACCOMPLISH, WHAT IS THE GOAL OF THE GAME IN KANTER/JACKELL?

The Game

"It was hard for success to mean anything but movement in a large hierarachial organization like Indsco"

Kanter

…There is a strong moral imperative for success"

Jackell

ECONOMIC MODELS OF CAREERS

"WE ASSUME PEOPLE ARE RANKED IN TERMS OF ABILITY SO THAT IT IS EFFICIENT TO ASSIGN HIGHER ABILITY WORKERS TO HIGHER LEVELS OF THE JOB LADDER"

(gibbons and waldman)

HOW IN PRINCIPLE DO FIRMS DO THIS?

IS THIS THE KANTER/JACKELL WORLD?

what is the basic thrust of Kanter?

what is the basic thrust of Jackell?

11/7

HOW DO YOU GET AHEAD IN JACKELL'S WORLD?

How To Get Ahead: Jackell's World

- The role of performance
- The role of presentation of self
- The role of politics

WHAT DOES JACKELL SAY ABOUT THE ROLE OF PERFORMANCE?

Criteria

"Managers rarely speak of objective criteria for achieving success…

Performance

"Corporations do demand, of course, a basic competence and sometimes specialized training and experience…a weeding out process takes place among the lower ranks of managers during the early years…"

"People are all good at that level…"

"No one in a line position who regularly misses his numbers will survive…a person who always hits his numbers but lacks some or all of the required social skills will not rise…a person who sometimes misses his numbers but who has all the desirable social traits will rise."

WHAT DOES JACKELL SAY ABOUT PRESENTATION OF SELF?

Presentation of Self

- Dress right
- Self control, "avoid excessive gravity and unwarranted levity…blunt agressiveness with blandness" "mask and intention behind bland smiling faces"
- Team player

  be interchangable with others

  put in long hours

  work in group, no prima donna

  "bow to whatever god holds sway"

  "happy, upbeat, can-do approach"

- "Managers up and down the corporate ladder adopt their public faces quite consciously; they are, in fact, the masks behind which the real struggles and moral issues of the corporation can be found"
- What does this mean?
- What is it like to live this life?

WHAT ROLE DOES POLITICS PLAY IN JACKELL?

Politics

- Be allied with the winners
- Have a "patron"
  provides opportunity for visibility
  cues into political developments
  helps make contacts

KANTER'S VIEW OF CLIMBING

OPPORTUNITY BREEDS MORE OPPORTUNITY
HOW?

FAILURE BREEDS MORE FAILURE
HOW?

FAST TRACKS AND FAILURES

WHAT IS A "FAST TRACK"

KANTER QUOTES A MANAGER AS SAYING THIS HAPPENS IN "STRANGE AND DEVIOUS WAYS"

WHAT DOES THIS MEAN?

FAILURE

- WHAT CAUSES FAILURE? HOW DO PEOPLE GET STUCK?

STUCK

- WHY
  - NO LADDERS
  - INDIVIDUAL FAILURE
  - WRONG ROUTE
  - WRONG KIND OF PERSON

HOW DO PEOPLE RESPOND WHEN THEY ARE STUCK?

STUCK REACTIONS

- DISENGAGEMENT
- REDUCED COMMITMENT TO ORGANIZATION
- LOOK TO PEERS FOR SATISFACTION
- CONSERVATIVE RESISTENCE

SO DOES FAILURE BREED MORE FAILURE?

JACKELL CALLS THESE PEOPLE "DRONES"

WHAT DOES HE MEAN?

ARE THEY?

THE FIRM'S GOAL

GET THE RIGHT PEOPLE WORKING IN THE RIGHT DIRECTION

HOW DOES WHAT WE HAVE DISCUSSED COMPLICATE THIS?

THE FIRM'S PROBLEM: I

- HOW DO YOU GET PEOPLE TO WORK IN THE FIRM'S INTEREST IF SO FOCUSED ON SELF-INTEREST?

Eliciting Effort

- Pay
- Benefits
- Promotion
- Monitoring
  - By Peers
  - By Management
- Culture

THE FIRM'S PROBLEM II

- DO YOU WANT JACKELL'S KIND OF PEOPLE IN YOUR ORGANIZATION?

THE FIRM'S PROBLEM III

- HOW MOTIVATE PEOPLE WHO DON'T MOVE UP?
- AS ORGANIZATIONS GET FLATTER HOW MOTIVATE IF PROMOTIONS SCARCE?

QUESTIONS

- WHAT DO WE LEARN ABOUT MOTIVATION?

  DO YOU BELIEVE IT?
- HOW GENERALIZE THESE STORIES?
- WHAT DOES THIS MEAN FOR YOU

15.301 Recitation

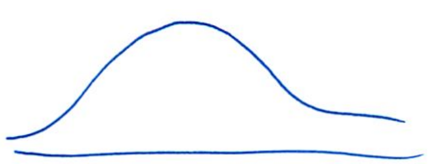
4/13

Quant 2

(15 min class)

Stat inference

- have a sample
- lets us draw conclusion for whole pop
- prob of how valid our conclusions are
- confidence intervals ← more meaningful
- significance test ← more popular
- sampling dist of stats
  - └ reliable to make an inference



↑ answers should be distributed like this

but may have

(2)

Central Limit Theorm

L (missed, go back + review)

More robust when large # of respones

L 30 + approx normal

Regression 100+

L well several variables for robust outcome

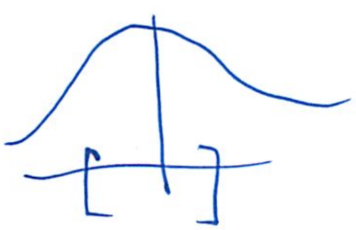
law of large #s

L as gets larger, get more confident

Confidence integral

estimate ± margin of estimate

as range ↑, the prob people fall into range ↑



(3)

100% sure all MIT students are age 0-200

L but not meaningful

L she is calling this "accurate" for some reason.

Certainty $\perp$ accuracy

$$z = \frac{(x-\mu)}{\sigma}$$

z-scores

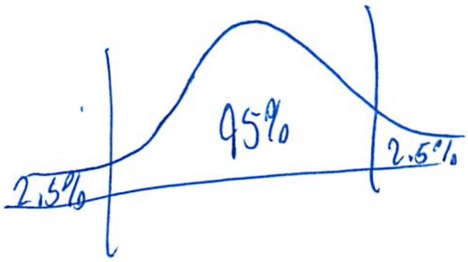
L how many st devs from mean

Also A-scores

L not on slides here

Standardizing is an important part of making any inferences

(4)



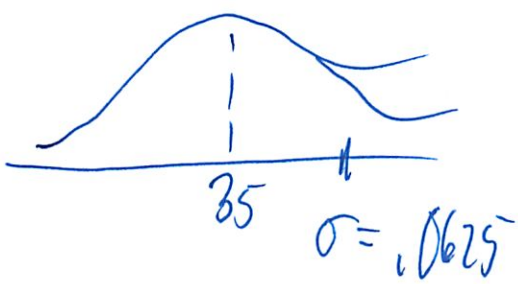
95% certanltiy distance b/w 33.775, 36.225 miles

$35 \pm 1.96 \times .0625$

z-score σ

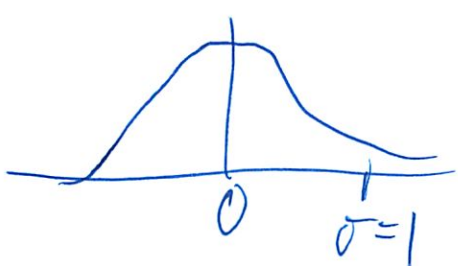
Want 95% certanity

Own data



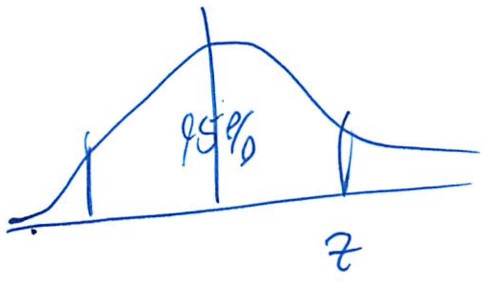
Want 95% of responses to fall in

Normalize



(5)

z-value such that 95% fall in



$\frac{100-95}{2}$

Look in table for .025

L is z = 1.95

So say ~~a~~ 95% confident in range 35 ± 1.225
a # will fall into

99% ~~a~~ certanlity is 35 ± 2.58 · .0628

Significance Test

Some claim about pop in a whole

Is ~~[illegible]~~ .3 a big enough ~~chance to~~ difference?

~~that is a~~

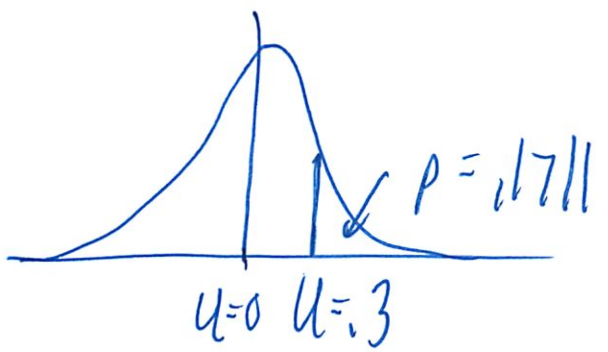
(6)

null hyp → no difference → $\mu = 0$

alt hyp → there is a loss → $\mu > 0$

P-value – prob that observed outcome that would take

a value as extream than actually observed



So we observe a sweetness loss this large or

larger ~17% of the time

(if we picked tester on avg)

This is pretty often – so not good evidence againts H_0

7

(So we assume it will be ~~all~~ normal around 0 ~~xx~~ if null hyp. Is .13 which has 17% chance of happening by accident w/ null hyp. We define this as too large a prob to happen by accident)

CTA yes

What is pass-fail test criteria

99%

~~99~~ 95% ← often

98%

So p value must be < .05

(CO'd in 6813 - but can be both ways - abs value)

Note! Center does not have to be 0

So look at $\bar{x} - \mu$

8

if $\bar{x} = 1.01$

This has p-val .0006

So very strong evidence againts H_0

for H_a

Tabulated Normal Tail Probabilities

For the normal distribution, for each fixed number z, the probability falling within z standard deviations of the mean depends only on the value of z. This is the area under the bell-shaped normal curve between $\mu - z\sigma$ and $\mu + z\sigma$. For every normal distribution, this probability is 0.68 for $z = 1$, 0.95 for $z = 2$, and nearly 1.0 for $z = 3$.

For a normal distribution, the probability concentrated within $z\sigma$ of μ is the same for all normal curves even if z is not a whole number—for instance $z = 1.43$ instead of 1, 2, or 3. Table A in Appendix A, also shown next to the inside back cover, determines probabilities for any region of values. It tabulates the probability for the values falling in the right tail, at least z standard deviations above the mean. The left margin column of the table lists the values for z to one decimal point, with the second decimal place listed above the columns.

TABLE 4.2: Part of Table A Displaying Normal Right-Tail Probabilities

	Second Decimal Place of z									
z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641
					....					
					....					
1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681
1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559
					....					
					....					

Table 4.2 displays a small excerpt from Table A. The probability for $z = 1.43$ falls in the row labeled 1.4 and in the column labeled .03. It equals 0.0764. This means that for every normal distribution, the right-tail probability above $\mu + 1.43\sigma$ (that is, more than 1.43 standard deviations above the mean) equals 0.0764.

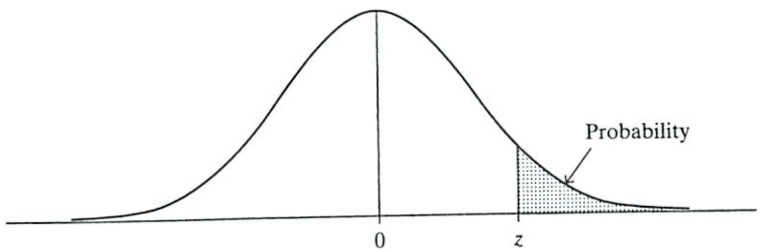
Since the entries in Table A are probabilities for the right half of the normal distribution above $\mu + z\sigma$, they fall between 0 and 0.50. By the symmetry of the normal curve, these right-tail probabilities also apply to the left tail below $\mu - z\sigma$. For example, the probability below $\mu - 1.43\sigma$ also equals 0.0764. The left-tail probabilities, called *cumulative probabilities*, are given by many calculators and software.

Normal Probabilities and the Empirical Rule

The probabilities in Table A apply to the normal distribution and also apply approximately to other bell-shaped distributions. This table yields the probabilities for the Empirical Rule. That rule states that for bell-shaped histograms, about 68% of the data fall within 1 standard deviation of the mean, 95% within 2 standard deviations, and all or nearly all within 3 standard deviations.

For example, the value two standard deviations above the mean has a z-value of 2.00. The normal curve probability listed in Table A opposite $z = 2.00$ is 0.0228. The right-tail probability above $\mu + 2\sigma$ equals 0.0228 for every normal distribution. The left-tail probability below $\mu - 2\sigma$ also equals 0.0228, by symmetry (see Figure 4.5). The total probability more than two standard deviations from the mean is $2(0.0228) = 0.0456$. Since the probability more than two standard deviations from the mean equals 0.0456, the probability between $\mu - 2\sigma$ and $\mu + 2\sigma$ (i.e., within two standard deviations of the mean) equals $1 - 0.0456 = 0.9544$. (Here, we've used rule (1) of the probability rules at the end of Section 4.1, that $P(\text{not } A) = 1 - P(A)$.) When a

TABLE A: Normal curve tail probabilities. Standard normal probability in right-hand tail (for negative values of z, probabilities are found by symmetry)



z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
	Second Decimal Place of z									
0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641
0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
0.7	.2420	.2389	.2358	.2327	.2296	.2266	.2236	.2206	.2177	.2148
0.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681
1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559
1.6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455
1.7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
1.8	.0359	.0352	.0344	.0336	.0329	.0322	.0314	.0307	.0301	.0294
1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0239	.0233
2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110
2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0048
2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
2.7	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
2.9	.0019	.0018	.0017	.0017	.0016	.0016	.0015	.0015	.0014	.0014
3.0	.00135									
3.5	.000233									
4.0	.0000317									
4.5	.00000340									
5.0	.000000287									

$\frac{100-95}{2}$

$\frac{100-99}{2}$

Source: R. E. Walpole, *Introduction to Statistics* (New York: Macmillan, 1968).

15.301 Recitation April 13th

Analyzing Quantitative Data III

Sources:

Babbie, Earl. 2007. *The Practice of Social Research*. Belmont, CA: Thomson Wadsworth.

Moore, David S. 2000. *The Basic Practice of Statistics* (2nd ed.). New York, NY: Freeman & Company.

Inference continued…

- Last week we saw:
  - Statistical inference provides methods for drawing conclusions about a population from sample data.
  - confidence intervals
  - significance tests, for inference about the mean of one population

- Today, inference for:
  - comparing the means of two populations (two sample z-test)
  - comparing the means of more than two populations (ANOVA)
  - studying relationships among variables (chi-square)

z-test

- Main concepts:
  - Null & alternative hypothesis
  - P-value and α
  - Confidence level $(1-\alpha)$
- Null hypothesis (H_0) is the hypothesis we want to reject. It usually states that there is no phenomenon
- Alternative hypothesis (H_A) is the hypothesis under exploration. It usually states that there is a difference between a parameter and a value.
- Remember:
  - Hypotheses are statements of causality between two or more variables
  - Asymmetry: we are able to *reject* but not to *accept* hypotheses.

z-test: examples of hypotheses framing

1. Taking an exam while listening to loud music affects the exam score.
2. Taking an exam while listening to loud music decreases the exam score.

1. H_0: $Score_{music} = Score_{\sim music}$
   H_A: $Score_{music} \neq Score_{\sim music}$
2. H_0: $Score_{music} \geq Score_{\sim music}$
   H_A: $Score_{music} < Score_{\sim music}$

4/13

Z-test: example

Comparing two teaching methods.
Is treatment more successful than control?
Test at the 1% significance level.

	Treatment	Control
Sample mean	85	83
Sample SD	3	2
N	75	60

Z-test: example (cont'd)

Comparing means, z test statistics, one tailed (right tailed):

$H_0: \mu_t \leq \mu_c$

$H_A: \mu_t > \mu_c$

Test Statistic: z-test

$$z = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Decision Rule: For a significance level $\alpha = 0.01$, reject the null hypothesis if the computed test statistic value z=4.6291 > z_α =2.33, p=.000002 (from z-table).

Conclusion: We reject the null hypothesis at the 1% significance level.

ANOVA example

Example: Three sections of a statistics class each taught by a different professor: morning, afternoon, evening. Is there any variation in how well students do in the course depending on the section?

$H_0: \mu_{morning} = \mu_{afternoon} = \mu_{evening}$

The null indicates that all groups have the same average score.

$H_A: \mu_{morning} \neq \mu_{afternoon} \neq \mu_{evening}$

The alternative is that all means are not the same

Note: the alternative is not that all means are different. It is possible that some of the means could be the same.

ANOVA example (cont'd)

	Ave Score	SD	# of students
Morning	4.12	1.3	313
Afternoon	3.99	1.3	340
Evening	4.37	1.3	297
	4.15		950

Calculate the ANOVA statistic in three steps (next slides):

1. Calculate the Variation Between Groups
2. Calculate the Variation Within Groups
3. Calculate the F statistic

(Note: the standard deviation in this example is equal by assumption)

ANOVA example (cont'd)

1. Calculate the Variation Between Groups:

$BSS= \eta_1 (\bar{x}_1-\bar{x})^2 + \eta_2 (\bar{x}_2-\bar{x})^2 + \eta_3 (\bar{x}_3-\bar{x})^2$

$= 313 (4.12-4.15)^2 + 340 (3.99-4.15)^2 + 297 (4.37-4.15)^2 =$
$=23.36$

➢ Divide the BSS by the number of degrees of freedom to get an estimate of variation between groups. The degrees of freedom are equal to the number of groups minus 1.

Between Mean Squares = BSS/df = 23.36/2 = 11.69

ANOVA example (cont'd)

2. Calculate the Variation Within Groups:

$WSS= (\eta_1 -1) SD^2_1 + (\eta_2 -1) SD^2_2 + (\eta_3 -1) SD^2_3$

$= (313-1) 1.3^2 + (340-1) 1.3^2 + (297-1) 1.3^2 =$
$= 1600.43$

➢ Divide the WSS by the number of degrees of freedom to get an estimate of variation within groups. The degrees of freedom are equal to the number of cases minus 1.

Within Mean Squares= WSS/df = 1600.43/949 = 1.69

ANOVA example (cont'd)

3. Calculate the F test statistic

F= Between Mean Squares/ Within Mean Squares
= 11.68/1.69 = 6.91

➢ Compare this value to a standard table for the F distribution to calculate the significance level of the F value. In this case, the significance level is less than .01.

➢ We reject the null. Students' performance varies significantly across the three classes.

➢ Now what? Pair wise comparisons (t- or z-tests, if samples >30) can be performed to determine which pair or pairs of means caused rejection of the null hypothesis.

Chi-Squared Tests

Used to examine differences with **categorical variables**, e.g. religion, political preferences.

Used in two circumstances:

1. Estimating how closely an observed distribution matches an expected distribution (**goodness of fit**), e.g. how male/female distribution in 15.301 matches that at MIT.

1. Estimating whether two random variables are independent (**test of independence**), e.g. performance for men vs. women.

Chi-Squared Test of goodness of fit - example

Example: An MIT researcher, based on MIT data, believes that 50% of the students in 15.301 turn in their assignments on time; 25% turn in early; 25% turn in late. Assume a sample of 80 15.301 students and test his hypothesis.

H_o: the observed data fit the MIT distribution
H_A: the observed data do not fit the MIT distribution

Step 1:

Category	expected	observed
On-time	40	38
Early	20	23
Late	20	19

Chi-Squared Test of goodness of fit – example (cont'd)

Step 2:

Discrepancy score:

$$X^2 = \frac{(\text{Expected Freq} - \text{Actual Freq})^2}{\text{Expected Freq}}$$

$= (40\text{-}38)^2/40 + (20\text{-}23)^2/20 + (20\text{-}19)^2/20 =$
$= 4/40 + 9/20 + 1/20 = = 3/5$

Step 3:

Locate C, at $\alpha = 0.05$, df = n-1 = 3-1 = 2, C = 5.991

Critical value C (at α), Reject H_o if $X^2 \geq C$

Since $X^2 = 0.6 \leq 5.991$, we fail to reject Ho, i.e. there is not enough evidence to reject the null hypothesis.

Chi-Squared Test of independence – example

Example: Consider an experiment on the effectiveness of early childhood intervention programs. In the experimental group, 73 of 85 students graduated from high school versus 43 out of 82 for a control group. We want to test whether the experimental group and control differ in likelihood of graduation.

	Graduated	Failed	Total
Exp	73	12	85
Control	43	39	82
Total	116	51	167

Chi-Squared Test of independence – example (cont'd)

- One way to answer that is to see whether the column (graduated or failed to graduate) *depends on* the row (experimental or control condition). If the columns are not contingent on the rows, then the rows and column frequencies are independent.
- The null hypothesis is that there is no relationship between row and column frequencies. The alternative hypothesis is that there is a relationship.
- The first step is to compute the expected frequency for each cell under the assumption that the null hypothesis is true. See next slide for how to do this.

Chi-Squared Test of independence – example (cont'd)

- Once the expected cell frequencies are computed, enter them into the original table (the expected frequencies are in parentheses).

  e.g. (shaded cell) →Expected (116*85)/167 = 59
  →Observed = 73

	Graduated	Failed	Total
Experimental	73 (59.0)	12 (26.0)	85
Control	43 (57.0)	39 (25.0)	82
Total	116	51	167

- The formula for the chi-square test for independence is:

$$X^2 = \frac{(\text{Expected Freq} - \text{Actual Freq})^2}{\text{Expected Freq}}$$

Chi-Squared Test of independence – example (cont'd)

- From the formula, we get: observed $X^2 = 22.139$
- As in the z-test, we need to compare our observed X^2 with a critical value: the critical X^2 from the table
- In order to find the X^2 in the chi-square table, we need to know the degrees of freedom. The degrees of freedom can be calculated using (R-1)*(C-1) where R is the number of rows and C is the number of columns. In this example, our degrees of freedom = 1
- From the table: X^2 critical = 6.63 at the 99% level
- Decision: Since our observed X^2 is bigger than the critical value, we reject the null at the 99% level.

In the series

Labor and Social Change

edited by Paula Rayman
and Carmen Sirianni

We Can't Eat Prestige

The Women Who Organized Harvard

4/19
Late

John Hoerr

Temple University Press
Philadelphia

15.301

4/18

Fri: Roger + Me

Next week: Corp Social Responsibility

Today: Unionized

- Have you worked at a union firm?

- Words associate w/ unions
  - united
  - purposeful
  - min wage
  - strike
  - work rules
  - bargining
  - factory
  - blue collar
  - benefits
  - representation
  - lawsuits

- Corrupt, inefficent?

Prof: Will be balanced, but I'm pro-union

This is very political

②

People join for

↑ wages
↑ benefits
want work rules
representation

Work rules can be inefficent
less so as time goes by
but also prevent abusive bosses

Some say in workplace

Acomplish goals through barginoing
Can legally strike
or just threaten to

Play politics
state + nationwide

(3)

Historically blue-collar factories or construction

but Harvard clerical workers

teachers

nurses

Politically very contraversal

WI tried to restrict public employee

7% of private sector workers are unionized

50s ~35%

30% public sector " "

Germany ~30% of private sector

Sweeden 88% " " " "

What forms can unions take to help econ?

(4)

How do you get a union?

- Boss can diminish urge to join union by paying better wages
- Usually one starts if their is a problem
- Organizer talks to people
- Boss tries to discourage you
  - but no threats
  - or fire organizer
- If 30% of workers sign card
- Then NLRB sets up election
  - secret ballot

(Wagner act during New Deal

- Real world want 60% to sign card
- If 51% want Union, co must recognize union + bargain w/ it. Does not have to sign contract
  People can go on strike, or it won't work out
- Unions at weakest point here

(5)

Contracts typically 3 years

Some are flexible

Contracts are public

Only 1 in 4 org drives lead to election

1 in 4 elections won

Very hard, got much hard

Public sector unions are different

Can't go on strike

More political

If in union can't bargin individually

Does not apply to managers

Weak enforcement mechinism

Civil action or NLRB

But huge backlog

Systematically understaffed

(6)

Unions wanted 2 things

1. - no election, but 51% sign card
   - Canada has it
   - 2 arguments
     - secret ballots feel right
     - Unions would intimidate people to sign cards

2. Speed up process, higher fines

American Unions

AFL-CIO - national federation of unions
- not a union
- like a biz association
  Lie Chamber of Commerces

UAW
USW
UC

national unions
- usually same industry
- but not strictly

(7)

Locals - for individual plants

Can also have unaffiliated local unions

Some bargain nationally
or specific local contracts

Unions are a democracy
- by law

- presidents are elected

- Union members are more politically active
- but some are corrupt in elections

Members can circulate a petiton to decertify
30% card then election
Very rare

Boss has to deal w/ unions

8

Large decline in union membership

- decline of key sectors
- ~~people~~ less abusive emp
- people better educated
- Employers more agressive opposing unions

Will they ever come back?

African Americans are more likely to be in unions

Young people are substinally less interested in unions

Survey (on slide)

"association" → non adversarial

Survey shows ~~people~~ ~~who~~ more people want a union

then have one

esp one that is not adversaral

unions think labor laws should change

9

What do unions do?

- ↑ wages 17.8%

  make ~~the~~ ~~mo~~ distribution more narrow

  - ideology → equality
  - political → not a poorer class

  help women a lot + groups at a disadvantage

- productivity unclear
  - depends on relationship

- turnover down

- profitability - prob down but not always
  - almost certainly down

- employment levels down → more capital ~~than~~

- exclude workers?

  if density ↓ - little power anyway

  density ↑ - most people in union

  perhaps in middle

but mostly

(11)

No min # of people in unions

Unions are disappearing
might grow w/ immigrants
But not hopeful

As a society are we better of w/ or w/o unions
- economic
- democratic (voice)

Union members want to stay in union 90%
highly satisfied

TRENDS IN UNION MEMBERSHIP

	1977		2009
ALL WAGE AND SALARY	26.8%		13.6%
PRIVATE SECTOR	23.3%		7.2%
PUBLIC SECTOR	40.1		37.4

PERCENT UNION MEMBERS, WAGE AND SALARY EMPLOYEES, 2009

PERCENT WOMEN	12.7
PERCENT MEN	14.4
PERCENT BLACKS	25.4
PERCENT HISPANICS	11.3
PERCENT ASIANS	12.5
PERCENT WHITES	13.4
PERCENT AGE 25-34(MEN)	11.9
PERCENT AGE 55-46 (MEN)	19.1

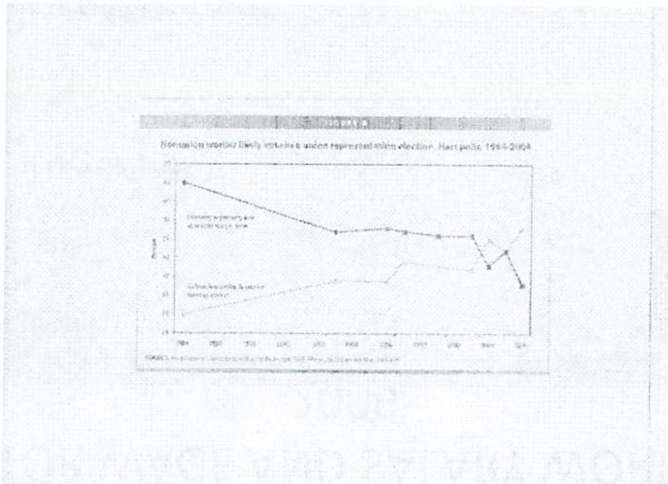
PERCENT UNION MEMBERS,PRIVATE SECTOR WAGE AND SALARY WORKERS, 2009

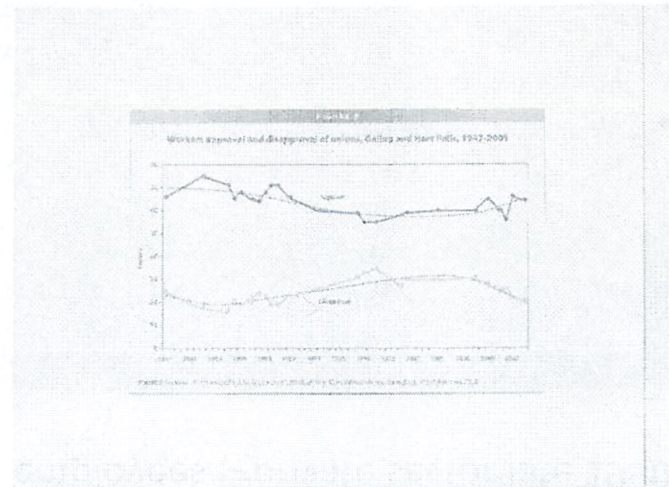
MANUFACTURING	11.9
CONSTRUCTION	15.0
UTILITIES, TRANSPORTATION	23.4
WHOLESALE, RETAIL	5.8
PROFESSIONAL, BUSINESS SERVICES	2.3
PRODUCTION OCCUPATIONS	17.7

INTERNATIONAL MEMBERSHIP RATES, all employees (=private sector late 1990s)

	1970	1990	2003
GERMANY	32%	31%	23% (22%)
FRANCE	22	10	8 (4%)
U.K.	45	36	29 (19%)
SPAIN	-	13	16 (15%)
ITALY	37	39	34 (36%)
DENMARK	60	75	70 (65%)
NORWAY	57	58	53 (44%)
NETHERLANDS	37	24	22 (19%)
CANADA	32	33	28 (18%)
			SOURCE: BLANCHFLOWER, BJIR, 2007

4/18





Voting Preferences, 2001

Would vote for an association and union = 39%

Would vote for association but against union =35%

Would vote for union but against association=2%

Would vote against both = 14%

Not sure = 10%

source: Freeman EPI brief

UNION WAGE IMPACT I

AVERAGE GAIN = + 17.8% AFTER CONTROLS FOR WORKER AND JOB CHARACTERISTICS

WAGE DISTRIBUTION NARROWER

UNION WAGE IMPACT II

Percentage Low Wage By Union Status, Private Sector

	All	Men	Women	High school degree or less	Some college	White	Black	Hispanic
union	6.9%	3.6%	13.3%	9.7%	4.1%	6.0%	10.1%	16.2%
non-union	19.5%	14.8%	24.6%	32.3%	15.7%	18.4%	29.5%	37.5%

Source: 2006 Census Outgoing Rotation Group. See notes for description of data preparation.

UNION IMPACTS: EMPLOYER VIEW

WAGES UP

PRODUCTIVITY: UNCLEAR; DEPENDS ON RELATIONSHIP

TURNOVER: DOWN

PROFITS: PROBABLY DOWN BUT NOT ALWAYS

UNION IMPACT, WORKER VIEW

WAGES UP, BENEFITS UP

JOB SECURITY UP

JURISPRUDENCE UP

VOICE UP

INDIVIDUAL AUTONOMY, BARGAINING: DOWN

EMPLOYMENT LEVELS: MAYBE DOWN BUT NOT NECESSARILY AND NOT FOR INCUMBENT WORKERS

INTERNATIONAL DIFFERENCES

- MULTIPLE UNIONS
- EXTENSION
- CORPORATISM
- ROLE OF UNION IN POLITICS

RELATIONSHIP QUALITY

- SOUTHWEST AIRLINES
- FIRESTONE

= A TALE OF TWO RELATIONSHIPS

FOR SOCIETY

MORE DEMOCRATIC?

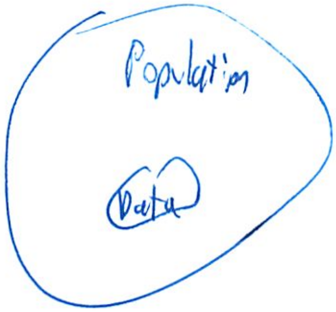
VOICE FOR EMPLOYEES

TRAINING IN DEMOCRACY

15.301 Tutorial

4/20

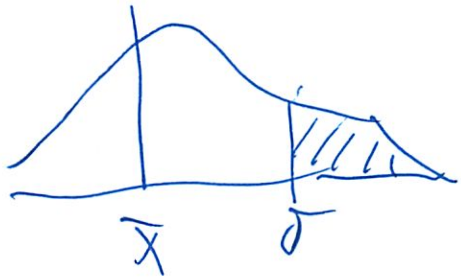
Today
Quant Data cont



How provide support that data represents population?

Confidence interval

$$\bar{X} \pm 1.96 \cdot \sigma$$



Prob that your results are sig.

Same as cola example

Usually designated w/ $\underbrace{***}_{\text{3 stars}}$ $\approx 99\%$

2

** $\approx 95\%$

* $\approx 98\%$

but not fixed

can take it out and redefine the stars

Today z-test, t-test

< when > 30 they are almost equal

ANOVA

Chi-square

- usually when not #

	Catholics	protistants	buddists
female			
male			

Next week: regression

(3)

Z-test

Null hyp N_0
alt hyp H_A trying to test

Statement of causality

It matters how frame hyp
1. Taking an exam while listening to music affects score H_0 ~~#~~ $=$
H_A $\neq$
2. " decreases score H_0 $\geq$
H_A $<$

So 1. ~~#~~ 2 tests, harder to pass, but more studying
Just meaningful to see a difference

(9)

	Treatment	Control
mean	85	83
SD	3	2

Is the difference meaningful

1% confidence level

? same as previous

So here z-test

$$z = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

So for 1% $a = .01$

(99% level

reject H_0 if $z = 4.62 > z_a = 2.33$

$p = .00002$

= got this approximation Obs by luck

So reject H_0,
So strong evidences that is a diff

(5)

You never "accept H_A"

When is z-test low?

- random groupings

  + shirt color affect math score

~~Also~~

ANOVA

3 means

analysis of variance b/w means

ex: Do scores vary b/w morning, afternoon, evening

H_0: $\mu_{morning} = \mu_{afternoon} = \mu_{evening}$

H_A $\neq$ $\neq$

[All are not the same

not just 2 of them

6

Say have

		morn	afternoon	eve	
	mean	4.12	3.88	4.37	4.15
	σ	1.3	1.3	1.3	

Or

$m = \Delta$

$a = x$

$e = 0$

$\bar{x} \sim \sigma$

Grouping is ~~un~~ very meaningful

~~Variance within b/w group~~

1. Variation B/w Groups
2. " Within Groups
3. F-stat

⑦

1. B/w groups

$$BSS = n_1 (\bar{x}_1 - x)^2 + n_2 (\bar{x}_2 - x)^2 + n_3$$

weight — # of samples

diff from total main mean

$$\text{B/w mean squares} = \frac{BSS}{df}$$

2. Within groups

$$WSS = (n_1 - 1) SD_1^2 + (n_2 - 1) SD_2^2 + (n_3 - 1) SD_3^2$$

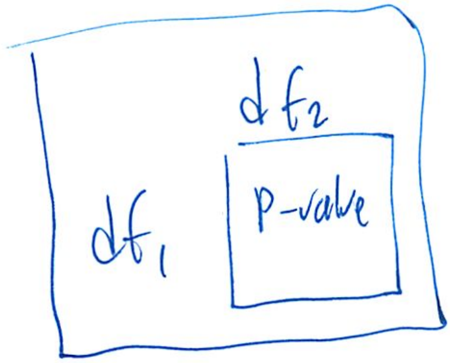
$$\text{within mean square} = \frac{WSS}{df}$$

3. F-stat

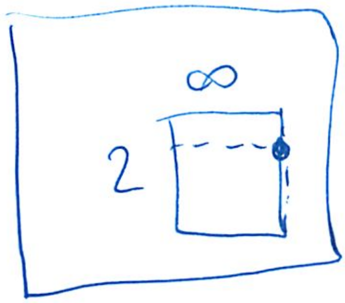
$$F = \frac{\text{B/w mean squares}}{\text{within mean square}}$$

Say it value sig or not

8



At 95% - confidence see p-value at each intersection of dfs



(review)

Chi-Squared

diff w/ categorical variables

ex religion, political pref

1. goodness of fit w/ expected

   ex how 15.301 gender dist matches MIT

2. test of ind.

   ex test scores b/w men + women

(9)

ex) effectiveness of childhood intervention programs

	Graduated	Failed	Total
exp	73	12	85
control	43	39	82
total	161	51	167

So 59 = expect w/ no assoiation
but is 73

expected

59	26
57	25

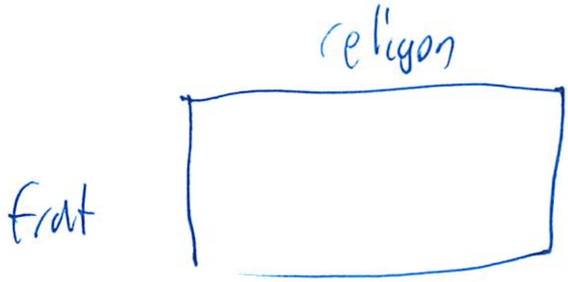
So is this real or noise?

$$\chi^2 = \frac{(\text{expeted freq} - \text{actual freq})^2}{\text{expected freq}}$$

(10)

Degrees of freedom -

how much can fill in w/o being over determining



If χ is bigger than critical value

↳ we can reject Ho

15.301 Recitation April 20th

Analyzing Quantitative Data IV

Sources:

Babbie, Earl. 2007. *The Practice of Social Research*. Belmont, CA: Thomson Wadsworth.

Moore, David S. 2000. *The Basic Practice of Statistics* (2nd ed.). New York, NY: Freeman & Company.

Regression Analysis

- The general formula for describing the association between two variables is Y= f(X). This formula is read as "Y is a function of X," meaning that values of Y can be explained in terms of variations in the values of X. Stated more strongly, we might say that X causes Y, so the value of X determines the value of Y.

- Regression analysis is a method of determining the specific function relating Y to X. There are several forms of regression analysis, depending on the complexity of the relationship being studied.

Regression Analysis

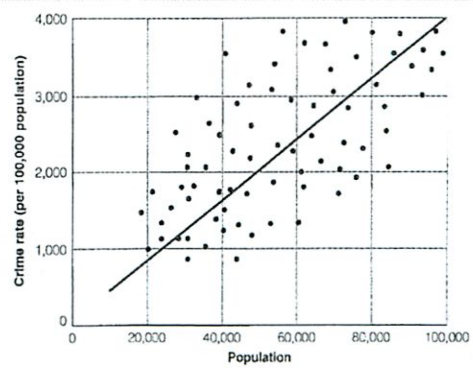
- The linear regression model has important descriptive uses. The regression line offers a graphic picture of the association between X and Y, and the regression equation is an efficient form for summarizing that association.

- The regression model has inferential value as well. To the extent that the regression equation correctly describes the general association between the two variables, it may be used to predict other sets of variables.

Regression Analysis

- The figure represents a (hypothetical) relationship between population and crime rate in small- to medium-size cities.

- In this figure, we can't superimpose a straight line that will pass through all the points in the scatterplot. But we can draw an approximate line showing the best possible linear representation of the several point.



4/20

The regression equation

- The general format of the regression equation is Y'=a+b(X), where *a* and *b* are computed values. *X* is a given value on one variable, and *Y* is the estimated value on the other.
- The values of *a* and *b* are computed to minimize the differences between actual values of Y and the corresponding estimates (Y') based on the known value of *X*.
- The sum of squared differences between actual and estimated values of *Y* is called the *unexplained variation.* It is the difference between the total variation and the unexplained variation.
- R-square is the variation that is being explained.

An example

Table 11.1 Infants' crying and IQ scores

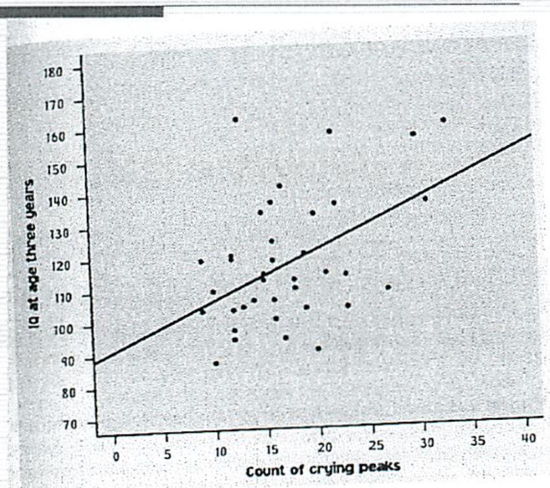
Crying	IQ	Crying	IQ	Crying	IQ	Crying	IQ
10	87	20	90	17	94	12	94
12	97	16	100	19	103	12	103
9	103	23	103	13	104	14	106
16	106	27	108	18	109	10	109
18	109	15	112	18	112	23	113
15	114	21	114	16	118	9	119
12	119	12	120	19	120	16	124
20	132	15	133	22	135	31	135
16	136	17	141	30	155	22	157
33	159	13	162				

An example (cont'd)

We are interested in predicting the response from information about the explanatory variable. So we find the least-squares regression line for predicting IQ from crying.

$\hat{y} = 91.27 + 1.493x$

Because r^2=0.207, only about 21% of variation in IQ scores is explained by crying intensity.



Regression output

```
Regression Analysis
The regression equation is
IQ = 91.3 + 1.49 Crycount

Predictor        Coef      StDev        T        P
Constant       91.268      8.934    10.22    0.000
Crycount       1.4929     0.4870     3.07    0.004

S = 17.50          R-Sq = 20.7%
```

Confidence intervals for the regression slope

- The slope β of the true regression line is usually the most important parameter in a regression problem. The slope is the rate of change of the mean response as the explanatory variable increases.
- We often want to estimate β. The slope b of the least-squares line is an unbiased estimator of β.
- A confidence interval is useful here because it shows how accurate the estimate b is likely to be.

$$b \pm t^* SE_b$$

- In this example (n=38, 95% confidence, df=36):
  $b \pm t^* SE_b = 1.4929 \pm (2.042)\,(0.4870)$

Testing hypotheses for the regression slope

- We can also test hypotheses about the slope β.
- The most common hypothesis is:

$$H_o: \beta = 0$$

- A regression line with slope 0 is horizontal. That is, the mean of y does not change at all when x changes. So this H_o says that there is no true linear relationship between x and y.
- In our example: t=3.07 and P-value=0.004 which means that there is evidence of a linear relationship.

15.301 4/20

Roger + Me

His Dad worked for GM

GM was a big role in Flint

Then shut down the factory

11 plants

(good to re-watch) - now that I ~~watch~~ know a bunch more

making $ billions in profit

(have a diff viewpoint - know their goals
- diff value systems

Flint in disrepair
- evictions
- some people say not as bad

GM funded a theater
- half price tickets
- their sponsors sing

2

Crime is a problem

retrained them as jail workers

Rich people talk about welfare

Lazy?

Lots of mail forwarding

Moved to tourism

Hotel

- no tourism

and even a festival marketplace

and autoworld

- Me + My Body

15.301

4/23

(15 min late)

Giving a Talk (writing instructor)

Don't memorize talk or use note cards

Can do outline for your lectern

Language on slides

Use parallel constructions

ie Start sentances w/ verbs/commands

Graphics are a part of it

Pratice!

Common pitfalls

- pics/videos don't work

- groups disagree on stage

- concluding weakly

~~Up~~

Promote questions

Show patterns

(2)

Bar chart better → eaiser to read

45 sec - 1 min

Match clip art to tone of talk

Link color w/ meaning

≥ 20 point

Use slide title <u>or</u> graph title

---

1. Focus your thoughts
2. Make great slides
3. Practic from an outline

Exercise: What can be an attention getter

Can take a little survey

Quote etc

Describe research question

Us: Ask how many feel confident here

Then: We looked at this by race, gender, etc

(3)

Just sees it exists

Email for article

Preparing and presenting successful oral reports

Managerial Psychology 15.301 Spring 2012
Dr. Karen Boiko
Writing Across the Curriculum at MIT

Today's topics

- Preparing
- Presenting
- Pitfalls

And in particular:

- Using language effectively
- Creating good graphics for technical information
- Using slides effectively

The assignment

- Presentations of your Group Projects will take place May 11 during section meetings
- Plan for a 12-minute talk and 3 minutes Q&A
- All team members must prepare & present
- You'll be evaluated by your TA for content and Harlan or me for delivery
- The criteria we'll use will be posted on Stellar.

What makes presentations successful?

You have lots of experience as a listener!

- What do you expect from a speaker?
- What are your pet peeves?

4/23

It' s all about keeping your audience interested

Boring presentations are:

- Not well focused
- Needlessly complex
- Poorly illustrated
- Unenthusiastic

5

Preparing: Consider your audience

- Who is your audience?
- What' s your relationship to them?
- What are they likely to know?
- What might they ask?

6

Preparing: Shape your talk to be successful

- Like a paper, a talk needs to be **shaped**, with a clearly marked Introduction and Conclusion, and clear transitions between sections
- Provide cues as you move from point to point: *"Now that I 've explained our rationale, Jenna will outline our experimental design."*
- For this talk, follow the sequence of your Group Report

7

Preparing: Craft an effective opening

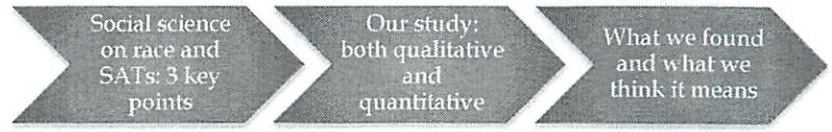
- Remember to **introduce yourself** (1st speaker) and each other
- Start with an **attention-getter**—a way for audiences to immediately relate to your topic
- Follow with the **need** (aka "motivation") —why do it?
- Follow that with the **task**—what you did

8

Preparing:
Craft an effective opening

- Now your audience is motivated to hear about your work, and you can preview it for them
  - Note: You may want to state your main message up front as part of your preview
- It is often useful to provide an agenda; just make sure it's not generic . . .

A fairly effective agenda or "mapping" slide



. . . and not so much

- Introduction
- Literature Review
- Design and methods
- Results and Discussion
- Conclusion

Preparing:
Focus on language

- Since the essence of a talk is the *talk*—the narrative with which you weave all the elements together—choosing the right words is important
- So is speaking fluently:
  - **Rehearsing your talk includes rehearsing sentences**, so that the right word is at hand and you don't stumble and halt your way through your presentation

Preparing: Focus on language

- Don’ t memorize your talk
- But *do* create and learn an outline
- *Do* memorize your opening and closing sentences
- Don’ t use note-cards
  - Use the notes function on PowerPoint, or
  - Use a single sheet with your outline in large font (for the lectern, not your hands)

Preparing: Focus on language

Language on slides matters, too:

- Use parallel constructions to facilitate grasping points at a glance
- Proofread slides carfully: typos distrac adiences

Preparing: Give yourself time to . . .

- Coordinate graphics with group members
  - Plan the content and sequence of visuals while organizing the talk, not as a separate process
- Rehearse as a group, at least 2-3 run-throughs
- Check out the room and equipment: Make sure you have a back-up laptop, cables &/or dongles, flash sticks, laser pointers . . .

To present a great talk

- Straighten up
- Face the audience
- Smile
- Show that you are happy to be here
- Dare to speak (relatively) slowly and loudly
- Accept that in the end, by giving a talk, you express who you are.

(points courtesy of BRICS, U. of Aarhus, Denmark)

What are some common pitfalls?

What are some common pitfalls?

- Forgetting that your audience doesn' t know what *you* know about your subject
- Not timing your talk
- Not using slides effectively
- Concluding w e a k l y. . . .

Turning data into graphics

Effective graphics accomplish several things.
They:

- Condense information and reduce data
- Focus attention by clarifying relationships and highlighting patterns
- Add to audience appeal
- Promote thinking and discussion

source: *The MIT Guide to Science and Engineering Communication*, J. Paradis and M. Zimmerman

Turning data into graphics

Avoid tables

- Tables don' t convey visual patterns and may obscure significant events or trends
- On slides, lengthy tables are impossible to read
- If you must use tables, limit the number of columns and rows, and clearly distinguish headings from results (boldface or color)

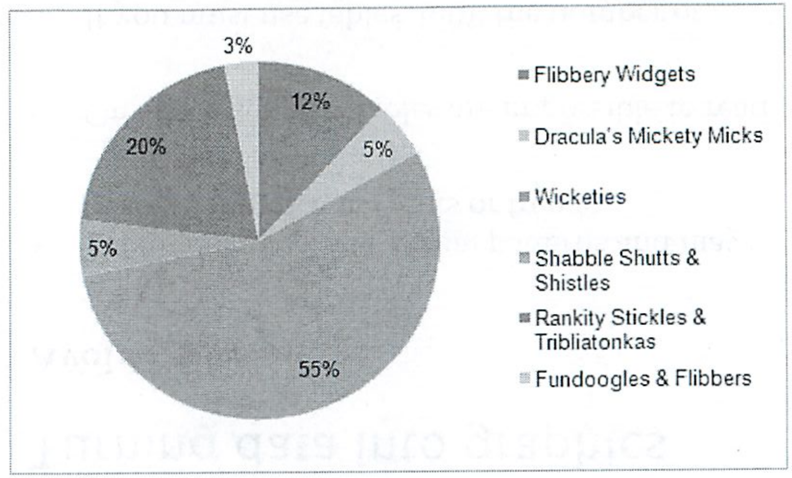
Turning data into graphics

Choose the graphic design that best supports your purpose.

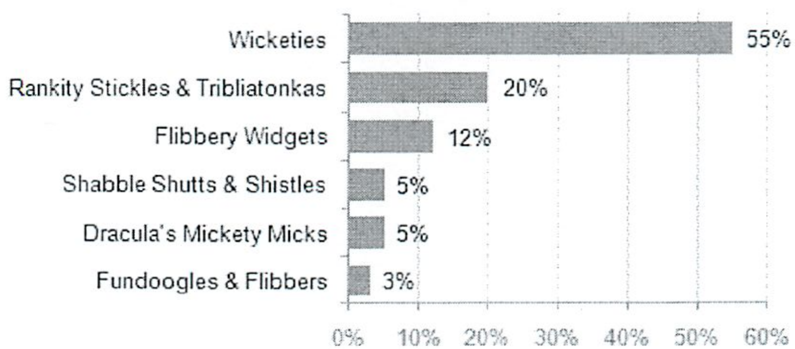
- For **a simple percentage breakdown** of a given sample, the pie chart or the 100 percent bar chart is most effective.

(Next slide image source: Gilligan on Data weblog by Tim Wilson)

Pie charts are pretty, but very limited in utility



With several categories, bar charts tell the story at a glance

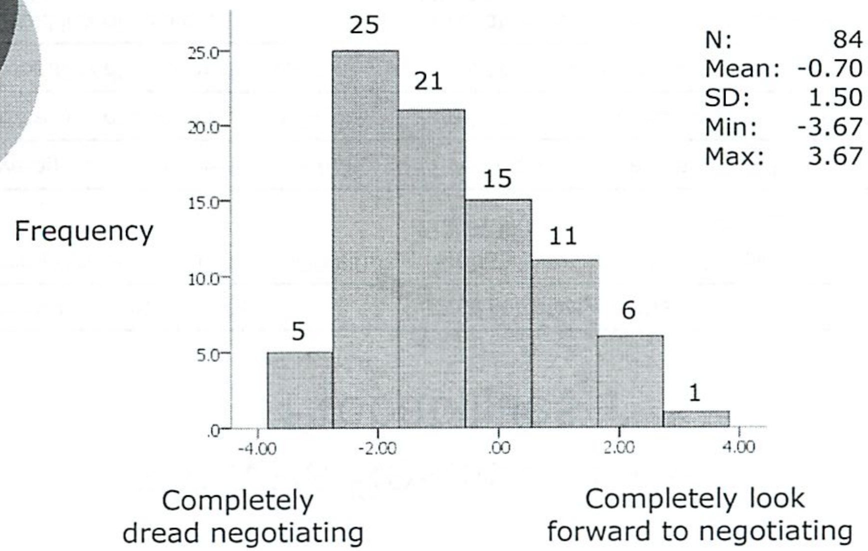


Source: Gilligan on Data weblog by Tim Wilson

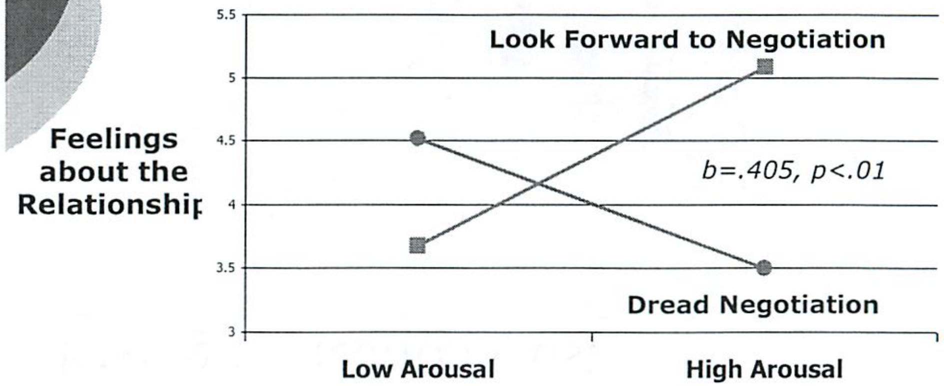
Turning data into graphics

- For **comparisons**, pie charts are not as effective as line graphs or bar charts
- **Correlations** demonstrate or suggest the mutual influence (covariance) of two variables. Plot the independent variable on the horizontal scale on a line graph or scatter chart:
  - Make sure not to confuse comparison with correlation
  - Scale your Y axis so that it doesn't distort the story your data tells
- Here are two successful examples by a previous 15.301 TA:

Participants have different associations with negotiating



Increased arousal polarizes feelings about the negotiation relationship



What do you know about using slides successfully?

Using slides successfully

- Don' t overwhelm your audience – figure on 45 seconds - 1 minute per slide
- Match your visual tone to the tone and purpose of your talk
- Keep template and borders consistent
- Use color strategically; link it to meaning
- Avoid pale colors (esp. yellow) and be careful with "knock-out" (reverse) colors, e.g., green on black…
- Beware distracting backgrounds, elaborate templates, and distracting animation
- Fonts should be legible: ≥ 20 points

Effective slides?

29

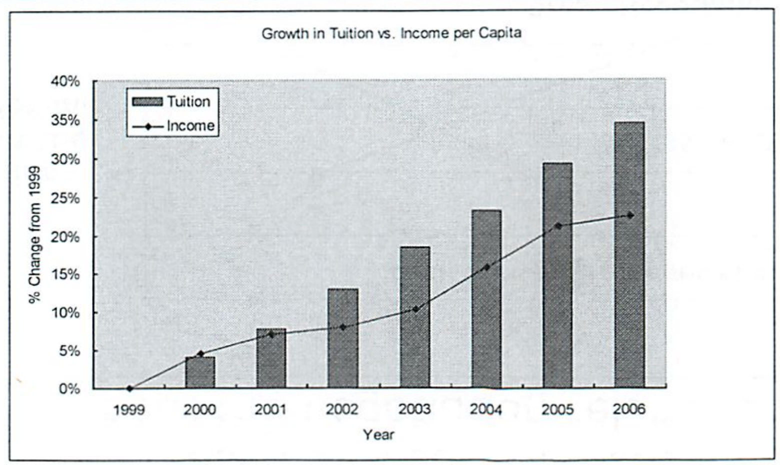
3. The Analysis

	1-Year Risk	5-Year Cost	Comments
RCNC1	0.03%	$114	High Cost
RCNC2	2.53%	$50M	High Risk
CTC	0.03%	$68M	2nd Best
HIC	NONE	$65M	Best Overall
Self-Ins	2.53%	$23M	High Risk

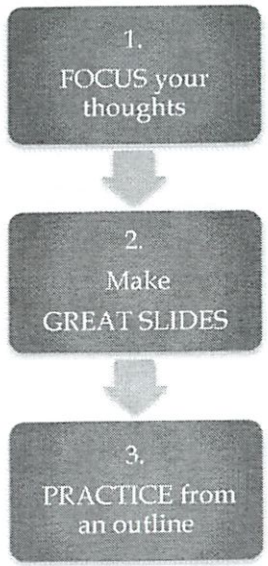
Analysis Results – Crash Probabilities

Without sensitivity analysis	With sensitivity analysis
Probability of a crash = 1 / 5000000	Probability of a crash = (1 / 6666666) (25% More safer due to new flights)
Average flights in a year = 124403	Average flights in a year = 124403
Probability of zero crashes = 97.5%	Probability of zero crashes = 98.15%
Probability of One crash = 2.42%	Probability of One crash = 18.32%
Probability of Two or more crashes = 0.030%	Probability of Two or more crashes = 0.017%
Conclusion: Probability of 2 crashes is very unlikely	Conclusion: Probability of 2 crashes is very unlikely

Rising Education Cost



In short:



Exercise: Opening your talk

Now compare what you wrote with what your group-mates wrote. Discuss why you made the choices you did. See if you can come up with a best description of your motivation.

Exercise: Crafting an opening

- What could you use as an attention getter at the top of your group' s presentation?
- How would you describe your research question in 1-2 sentences?
- Write these down.

Resources

- Your Communication Instructor:
Boiko@mit.edu, breindel@mit.edu
- The MIT Writing Center
http://writing.mit.edu/wcc
- The Mayfield Handbook
https://web.mit.edu/21.Guide/www/grf-com.htm (certificate required)
- *The MIT Guide to Science and Engineering Communication*, J. Paradis and M. Zimmerman (print)

15.301 4/2/05

Corporate Social Responsibility

What are firms trying to do?

Who are firms responsible to?

Classical: shareholder value

But might annoy buyers who boycott

└ so might not be profit maximizing

Costco documentary this week

1. Diff market

Avg income 90k

high quality

2. Less profitable

What is the objective

Today: Roger + Me

– Michael Moore's ~~first~~ 1st film

②

Flint

- Unemp was at 5% in 1999
- but at 13.8% now

Who are the stakeholders?

- Shareholders
- Employees
- local community
- Management
- Suppliers
- Union

Much of the world → stakeholder capitalism

Many stakeholders to take care of

Employees: income
job security
(not all have same interest)
ie cutting jobs might keep me afloat

(3)

Community) value of house ↓

management) depends where on the chain they are
middle management - looks like the workers
top managers often have stock options
and pressure to keep job - stay on top
Prof: Roger Smith did a terrible job in general

Suppliers) want to $ buy stuff

Union) are their interest different?
Union dues
~~the~~ political operations
Union boss getting reelected
(he called me out for using language "union boss")
if give concessions here, must drop everywhere
Can't just give up on it

(4)

Should we care about the other stakeholders?

- externality
  - but not a market failure to close plants if no one buying cars
- publicity
  - buyers want to Buy American
- Long Flo movie
  - Japanese seen a much better HR practice
- Strong Japanese comp
  - Does GM have to cut capacity?
  - Assuming it does ← could also adopt TPS
  - Must it care about stakeholders?

Japan TPS → lifetime employment + high quality

Prof: Roger Smith wants to leave a legacy
- might not be good for shareholders
- emphasize short term

⑤ ie no investment in R+D to ↑ profits

Then retire and co is in problem

Should the firm care about anyone besides the shareholder?

- Reputation - can't open a store
- ↑ productivity

Do you care about workers after you lay them off?

Any responsibility?

Severance?

Ding shareholders to take care of someone?

implicit contract?

OE: At the end of the week we're even

Or do we take care of you as a family?

~~Don~~

Paying taxes helps community

(6)

Does max shareholder value the most econ. efficient

Most of world does not rely on

Worker made an investment?

Treat diff b/w how long you worked here

Can you max. efficiency w/o being nice to emp

Better way to manage

Do you keep an inefficient worker?

- drags co down
- then might hurt everyone
- ~~could~~ do you pay severance?
- 6 months notice?

7

Movie is all about the inefficiencies

Apple

Whats happening?

Are they evil people?

Enjoy killing people? No

But profit maximizing?

Does their PR line up w/ what is actually happen

Are standards diff in China?

How do you enforce labor standards?

What are the negitive consequences

Conflicting incentives

L squeeze suppliers

Do you draw the line? Where?

They are very profitable

15.301 Recitation 4/27

Final presentation May 11

- Do data analysis tomorrow

Practice May 9th

Us

400 respones

Will send out survey again tonight

Analyze data this weekend

Show it correlation

Baseball

Just sent out survey yesterday

120 emp

Did a few interviews

Still explitory stage

SAT

About to send survey

①

Regression

$\boxed{Y = f(x)}$ → well more like $\boxed{Y = f(A, B, C)}$ ↓ multiple?

?? is there a function

? can be continuous or categorical

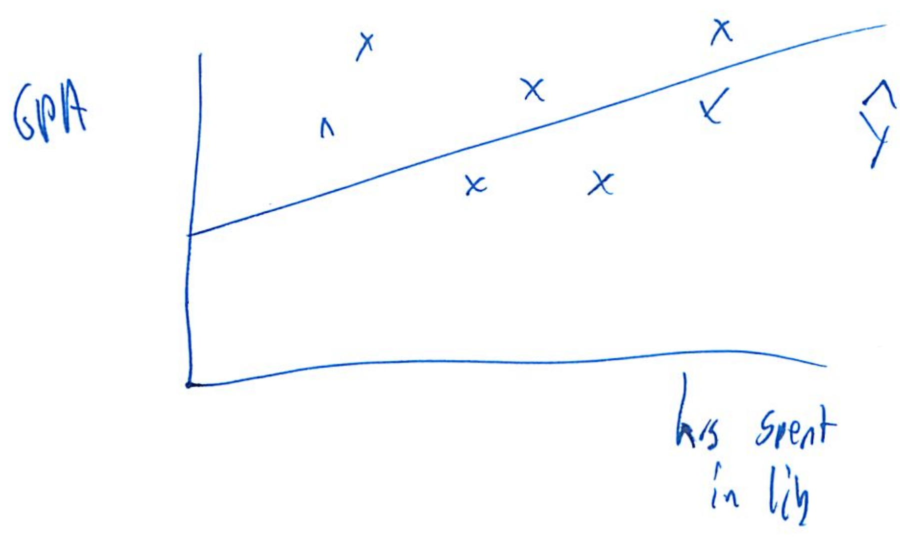
Can y explain changes in x

Can see multiple facts, and control for variables + see what variables matter

Can add more variables

→ To what extent does x influence y

Extension of correlation
 ↳ add more variables

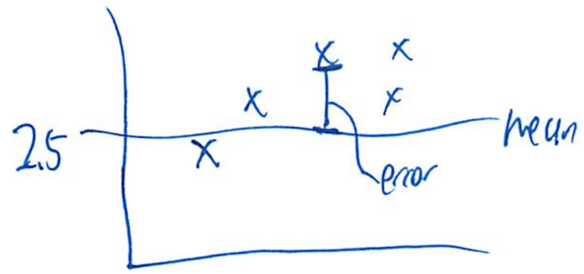


$\hat{y} = ax + b$
prediction line

(3)

Ordinary ~~Linear~~ Least Square Regression (OLS)

- minimize the square of the error
- error = $y - \hat{y}$
- Could also draw mean (to see what error is I think)



- Goal: describe data w/ an eq w/ minimal error

- $R^2 = \dfrac{TSS - SSE}{TSS}$

TSS = total sum of squares
SSE = sum of squared errors

(4)

Are other functions than best fit

- ~~Max likelihood~~

- if dep variable is continuous ; OLS
- if " " " ~~discrete~~ ; Logistic regression (Logit)
dichotomous

$\downarrow$

max likelihood

All of econ is variation of regressions

R^2 = the reduction in total error
the % of the data that is explained
by the line

~.2 - .3 normal
.9 too close!

Put together measures to be able to make
statements

(5)

~~Beta~~ confidence interval

~~(missed)~~ So H_0 is $\beta = 0$

How close does linear describe?

Do you have confidence that there is no relation?

Can have dummy variables

gender   1 male
         0 female

<u>But</u> not religion   1 Buddist
                          2. Catholic
                          3 Jewish

Instead   Buddist   1 Yes
                    0 No

          Catholic 1 Yes
                    0 No

          Jewish   1
                    0

15.301 Recitation April 27th

Analyzing Qualitative Data

Sources:
Babbie, Earl. 2007. *The Practice of Social Research*. Belmont, CA: Thomson Wadsworth.

Qualitative Analysis

- Qualitative analysis is the nonnumerical examination and interpretation of observations for the purpose of discovering underlying meanings and patterns of relationships.
- Qualitative research methods involve a continuing interplay between data collection and theory.
- Anselm Strauss and Juliet Corbin (1994) talk about theory as consisting of "plausible relationships proposed among concepts and sets of concepts."
- Whereas qualitative research is sometimes undertaken for purely descriptive purposes – such as the anthropologist's ethnography detailing ways of life in a previously unknown tribe – here we focus primarily on the search for explanatory patterns.

Discovering Patterns

- John and Lyn Lofland (1995) suggest six different ways of looking for patterns in a particular research topic. Let's suppose that you are interested in child abuse in a certain neighborhood.
  1. Frequencies: How often does child abuse occur among families in the neighborhood under study?
  2. Magnitude: What are the levels of abuse?
  3. Structures: What are the different types of abuse? Are they related in any particular manner?
  4. Processes: Is there any order among the elements of structure?
  5. Causes: What are the causes of child abuse?
  6. Consequences: How does child abuse affect victims?

Strategies for cross-case analysis

- For the most part, in examining your data you will look for patterns appearing across several observations that typically represent different cases under study.
- Cross-case analysis: an analysis that involves an examination of more than one case.
- Two types (Huberman & Miles, 1994):
  - *Variable-oriented analysis*: If we are trying to predict the decision to attend college, we might consider variable such as gender, socioeconomic status, parental expectations, etc.
  - *Case-oriented analysis*: we attempt to understand each case fully.

22/11

Grounded Theory

- Qualitative researchers attempt to establish theories on a purely inductive basis.
- Grounded theory was first developed by the sociologists Glaser and Strauss (1967).
- This approach begins with observations rather than hypotheses and seeks to discover patterns and develop theories from the ground up.
- In addition to the fundamental, inductive tenet of building theory from data, grounded theory employs the "constant comparative method." According to this method, concepts and relationships among concepts arise from the data by comparing cases and incidents.

Qualitative Data Processing I

- Whether you've engaged in participant observation, in-depth interviewing, or any other qualitative data collection method, you'll now be in the possession of a growing mass of data – most typically in the form of textual materials. Now what do you do?
  - **Coding**: The key process in the analysis of qualitative social research data is coding – classifying or categorizing individual pieces of data – coupled with some kind of retrieval system.
  - **Writing memos**: The coding process involves more than simply categorizing chunks of text. As you code data, you should also be using the technique of "memoing" – writing memos or notes to yourself and others involved in the project.

Qualitative Data Processing II

- **Concept mapping**: Often we can think about relationships among concepts in a graphical format, a process called concept mapping.

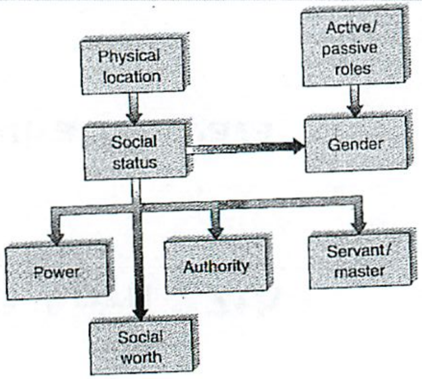


FIGURE 13-3
An Example of Concept Mapping

The classics

- "In anthropology, what the practitioners do is ethnography. [...] But it is not these things, techniques and received procedures, that define the enterprise. What defines it is the kind of intellectual effort it is: an elaborate venture in, to borrow a notion from Gilbert Ryle, "**thick description**." (*Clifford Geertz*)
- "By participant observation, I mean a technique [...]. It's one of getting data, it seems to me, **by subjecting yourself**, your own body and your own personality, and your own social situation, to the set of contingencies that play upon a set of individuals, so that you can physically and ecologically penetrate their circle of response to their social situation [...]." (*Erving Goffman*)

15.301

4/30

Walmart

Some Brown student is recruiting for an internship w/ a hotel workers union

MIT union contracts up for negotiation this summer

L ~~want to~~ students can influence

$450/week

What responsibilites do corps have to their communites

~8.50/hr avg wage

↓ retail wages

but shoppers save a lot of $

does cater to low-income wages

Walmart wants to open in Osterman-ville

- Political opposition like most places it tries to open

②

Pro

Cut prices ↓ 15% — plus in area
— hundreds of $ a year in savings

Dalles has lots of Walmarts
very low unemp
Portland has high unemp
personal exp

Avg Walmart has ___ jobs

More efficient supply chain

Negotiate on your behalf

People can still shop at old ~~old~~ stores
└ People have a choice where to shop

Larger selection — if community wants to shop there

Help purchasing power

Offer to pay for infrastructure

Bring in tax $

One will open in the next town over

(3)

Emp discounts

$4 prescription drug program

Cost cutting innovation

Supplemental income

Always low prices. Always

Correlation not causation

Wages only ↓ 3.5%

Retail emp only ↓ 2-4%

largest corp employers in the world

Cheap health insurance

Local purchasing program

(Re presented)

Should have worked w/ them more

Not pushed freedom/competition

(4)

Con side

Low wage side

Part-time

Push old people

People expendible

Wages go down ?

Squash competion - not provide competion

Irreversable

Ferct $ back to national org

City Council

Wants to hear about manf.

(3)

More to talk about

- organic
- energy efficent
- green lable

Manuf - cut wages

- pressure suppliers - very small margin

Rebut: local purchasing program

citi: will ↑ commerce

Town just becomes a Wal Mart

- no soul

Q) If ~~the~~ Wal Mart opened next door

Net less

Debate over

25% wanted it

75% didn't

6

WalMart Bribery Scandle

- new weapons againts Walmart
- esp for local opponents

How much real benefits vs transfers?

- more efficent IT
- eliminate waste in products
- economies of scale
  - large central warehouses

But also transfers

Wages ↓ at Walmart and nationwide

Job losses 2-4%

Stockowners at suppliers poorer

What do you value more?

distributional

7

Externalities

Do you want to pay more for small stores?

Comes down to a political choice

Questions to ask
- Whose are the stakeholders?
- What are their interests?
- Do you think they have "standing"?

What strategy maximizes profits?
Is being nice to workers part of that?

Should firms take less profits for CSR?

Should the public put limits on externalities?
Should we limit profits?
Just standard op procedure - or force?

Organizing *Beyond* Barriers

Internships at UNITE HERE

Person advertised in class

2012 Organizing Internships

Los Angeles

UNITE HERE announces its 2012 summer internship program, Organizing Beyond Barriers.

In 2011, the Organizing Beyond Barriers Summer Program trained 112 "Summer Organizers" on campaigns in our hotel, gaming, and food service union organizing campaigns. The program emphasized movement building, one-on-one organizing skills, and "Always Be Recruiting,"—developing hundreds of volunteers who participated in rallies, picket lines, delegations, and door-to-door community outreach. Organizing Beyond Barriers combined field work, classroom training, and mentorship from UNITE HERE lead organizers and rank-and-file leaders.

Trainings included house visits skills, immigrant rights, LGBTQ rights, labor history, the economic crisis, and comprehensive campaign strategy and planning. Summer organizers were trained in 24 UNITE HERE locals, including but not limited to: **Chicago, Indianapolis, Los Angeles, Boston, New York, San Francisco, Oakland, Sacramento, Phoenix, and Hawaii**.

Boston

In 2012, Organizing Beyond Barriers will include both an Alternative Spring Break Program in Ohio and Summer Organizer placements lasting for eight weeks. Summer internships will include a weekly stipend of $450 per week. Dates and summer city placements will be announced in Feb. 2012. UNITE HERE does not pay for housing, so every effort will be made to match up summer organizers with union campaigns and cities where applicants can line up their own housing.

APPLICATION DEADLINES: FOR EARLY ACCEPTANCE: MAR 1, 2012
FINAL DEALINE FOR ALL APPLICATIONS: APRIL 30, 2012
Application at : http://jobs.unitehere.org/internapp.php

UNITEHERE!

For more information, contact Haley Kossek at: hkossek@unitehere.org
231-492-3398

going to SCALE
Jeffrey L Bradach
Stanford Social Innovation Review; Spring 2003; 1, 1; ABI/INFORM Global
pg. 18

Michael E Plasmeier

From:	Stella Kounelaki <stellak@MIT.EDU>
Sent:	Tuesday, May 01, 2012 10:05 PM
To:	Styliani Kounelaki
Subject:	[15.301] process going forward
Follow Up Flag:	Follow up
Flag Status:	Flagged

Hi all,

A few notes about the last couple of weeks of the semester:

1. We will have lecture as usual tomorrow (Wed) and Monday (May 7).

2. On May 9th there will be no class. We will hold practice presentation sessions for the teams that have signed up. I will email details about logistics to these teams asap.

3. On Friday May 4th there are sections as usual - only there are no slides. It will be a wrap-up section. Under May 4th I have posted the grading templates for the paper and the presentation. Please take a look.

4. On Friday May 11th it's presentations time! Presentations will happen in sections (regular time & room). TAs and WAC staff will be there to evaluate.

5. On Monday May 14th there will be a presentation of the 3 best projects (TAs will nominate one from their sections and from those the TA team will select 3). We will be in touch with the nominated teams over the weekend.

6. Finally, on Wed May 16th there is a final wrap-up lecture. Group projects are due at 5pm. Please make arrangements with your TAs.

Good luck with everything! Please let me know if there are any questions!

stella

15.301

Non-Profits

5/2

Today: Non-profit org

Are they all that diff?

Distinctive and similar challenges

Would you set up a non profit or for-profit?

~~XX~~ Hospital?

- accountability
- actually quite the same
- incentives
- Salaries + practices similar
- suck the $ out

Profi: Ans not clear

non-profits have a mission
not just bad quality

People trust non-profits more
esp when can't easily observe quality

2

Or to provide gov-like services gov does not provide

Or if you want to redistribute more

Have ~~..~~ a private country club

- can you discriminate?
- One golf ~~..~~ club doesn't let women join
- But only a race?
-

Only insure a certain type of people

Or if service too controversal for gov

- religion
- planned parenthood

Non profit

Can make a surplus

Can't distribute to shareholders

No tax

③

But can pay its managers a lot

Controversy should it collect revenue

How much of a biz mentality

Some you can donate to for a tax deduction

Others you can't

Issues

- Can't pay market wages
- multiple constituencies
- mission/culture vs good management
- how do you evaluate? measure?
- multiple conflicting revenues

but same

- branding
- Competition
- growth
- obtaining capital

(4)

Is mission to provide free?

Harvard: Investment Management Co make $10 mil
Compariable to private sector
But way out of range for Harvard

Quite a few students in the class worked in it
2-3 professionals at a site
rest are free labor
Community based

3 lenses
(blast from the past)
~~the~~ Structural
very grass rootes
each affiliate ind
Is it like McDonalds?
affiliates much more ind
Why do you need a HQ

(5)

For national PR / brand
Share best pratices
Central fund raising
Redistribute
- from where easy to raise $ to where needed

Cons
What is HQ doing for us?
They don't do anything
Raise local $ for local

What is the overall mission?
- education / advocacy
Other poor issues
Christian

Its growing very fast
How biz-like should it be?
inefficent
Stealing

6

He belives in the mission

L Thinks maximize w/ biz practices

Teach For America in a similar place

big national org

Should it try to attack a large mission?

wide-spread school reform

Change mission to be too controversal -> lose donors...

Whats the goal of Habitat?

- build as many houses as possible?
- apartments - max # of families
- legislative issues
- "end poverty housing"

How do you measure it?

Mission-driven non profit

- ie not set up a private swim clubs

2

Fuller ended up in a sex scandle

└ got kicked out

Habitat is kicking along

15.301 Recitation ~~[illegible]~~ 5/4

Qualative Data

Explain w/o H's

Trying to propose/explain theories

Or descriptive purposes

Search for explanitory patterns

How to collect

- Participation
- Observation
- Interview
- Methods: Journal, note taking, recording, unstructured survey
  - ~~[illegible]~~ short answer

Jon Van Maanen - Sloan Prof wrote about working at Disney (heard correctly?)
  └ yeah

(21)

Patterns

1. Frequencies

2. Magnitude

3. Structures

4. Processes

5 Causes

6. Consequences

Could be sensitive discussions

Cross case analysis

More than one case

more often → Variable oriented - look at differences

Case-oriented - try to understand each case fully

③

Grounded Theory

establish theorys on inductive basis

begin w/ obs not hyp

- Think about content used in each part...

  how they are related in each part

Data Processing

Coding assigning #s to sentances

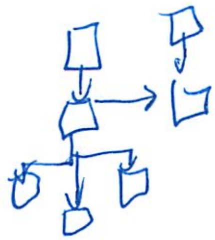
Classifing / categorizing

Memos - take notes as well

- aux. tool

- so remember meaning

Concept Mapping try to draw a graph/process flow



(4)

Some say be very involved

You can't really do a study on just qualitative research

Generally researchers choose 1 or other track

Projects - PPTs will be graded w/o watching presentation

15.301 Recitation April 27th

Analyzing Qualitative Data

Sources:
Babbie, Earl. 2007. *The Practice of Social Research*. Belmont, CA: Thomson Wadsworth.

Qualitative Analysis

- Qualitative analysis is the nonnumerical examination and interpretation of observations for the purpose of discovering underlying meanings and patterns of relationships.
- Qualitative research methods involve a continuing interplay between data collection and theory.
- Anselm Strauss and Juliet Corbin (1994) talk about theory as consisting of "plausible relationships proposed among concepts and sets of concepts."
- Whereas qualitative research is sometimes undertaken for purely descriptive purposes – such as the anthropologist's ethnography detailing ways of life in a previously unknown tribe – here we focus primarily on the search for explanatory patterns.

Discovering Patterns

- John and Lyn Lofland (1995) suggest six different ways of looking for patterns in a particular research topic. Let's suppose that you are interested in child abuse in a certain neighborhood.
  1. Frequencies: How often does child abuse occur among families in the neighborhood under study?
  2. Magnitude: What are the levels of abuse?
  3. Structures: What are the different types of abuse? Are they related in any particular manner?
  4. Processes: Is there any order among the elements of structure?
  5. Causes: What are the causes of child abuse?
  6. Consequences: How does child abuse affect victims?

Strategies for cross-case analysis

- For the most part, in examining your data you will look for patterns appearing across several observations that typically represent different cases under study.
- Cross-case analysis: an analysis that involves an examination of more than one case.
- Two types (Huberman & Miles, 1994):
  - *Variable-oriented analysis*: If we are trying to predict the decision to attend college, we might consider variable such as gender, socioeconomic status, parental expectations, etc.
  - *Case-oriented analysis*: we attempt to understand each case fully.

5/4

Grounded Theory

- Qualitative researchers attempt to establish theories on a purely inductive basis.
- Grounded theory was first developed by the sociologists Glaser and Strauss (1967).
- This approach begins with observations rather than hypotheses and seeks to discover patterns and develop theories from the ground up.
- In addition to the fundamental, inductive tenet of building theory from data, grounded theory employs the "constant comparative method." According to this method, concepts and relationships among concepts arise from the data by comparing cases and incidents.

Qualitative Data Processing I

- Whether you've engaged in participant observation, in-depth interviewing, or any other qualitative data collection method, you'll now be in the possession of a growing mass of data – most typically in the form of textual materials. Now what do you do?
  - **Coding**: The key process in the analysis of qualitative social research data is coding – classifying or categorizing individual pieces of data – coupled with some kind of retrieval system.
  - **Writing memos**: The coding process involves more than simply categorizing chunks of text. As you code data, you should also be using the technique of "memoing" – writing memos or notes to yourself and others involved in the project.

Qualitative Data Processing II

- **Concept mapping**: Often we can think about relationships among concepts in a graphical format, a process called concept mapping.

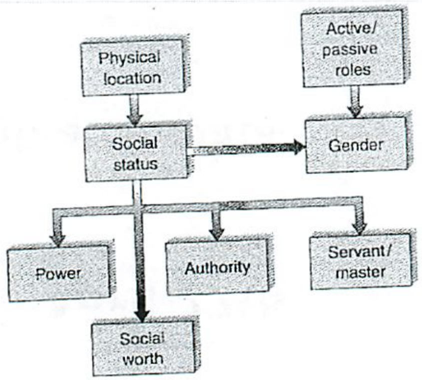


FIGURE 13-3
An Example of Concept Mapping

The classics

- "In anthropology, what the practitioners do is ethnography. [...] But it is not these things, techniques and received procedures, that define the enterprise. What defines it is the kind of intellectual effort it is: an elaborate venture in, to borrow a notion from Gilbert Ryle, "**thick description**." (*Clifford Geertz*)
- "By participant observation, I mean a technique [...]. It's one of getting data, it seems to me, **by subjecting yourself**, your own body and your own personality, and your own social situation, to the set of contingencies that play upon a set of individuals, so that you can physically and ecologically penetrate their circle of response to their social situation [...]." (*Erving Goffman*)

15.301 Grp Mtg 5/6

~~A~~ Found in lit review

t test b/w Caucsain + AA vs ASQI

1. Can you do that

2. How would you do that?

└ AA 1 or 0

eliminate all but AA + Caucasian

See if ~~diff~~ diff

Is that valid?

↳ Ask Joe

Do tests 1st

~~D~~ Lizz thinks

Lizz wants to make all of the slides

info by ~~Mon~~ ~~night~~ tue at 7

②

Olivia more self concept
Change over

Add more to methods ASQI + SQI Peter

Lizz Adds discussion

Paper due next Wed

Draft done Sat night

All together Mon night

Me ~~seperate~~ narrate table
assume Caucasian is baseline

↓ Oh another Disney article

ARTICLE

paid by Euro Disney; that might have lessened the financial burden on Euro Disney, these executives say.

Unfamiliar with the French market, Disney made mistakes in selecting contractors, French construction-industry officials say. Two general contractors filed for bankruptcy during construction, forcing Disney to pay twice for the work done by subcontractors, once to the failed general contractors and again to the 60 or so smaller firms that carried out the work. Euro Disney won't say how much the double payment cost, but French industry sources peg the amount at about 200 million francs, a number Disney has said is too high.

Bad press has dogged Euro Disney since the opening. Mr. Eisner and his management team dismissed early criticism by scornful French intellectuals as the ravings of an insignificant elite. But the mainstream press, too, described every Disney setback with glee. "There was a perceived arrogance on our part," concedes one former executive. The effect, he adds, was to demoralize the work force and cut down on initial French visitors. "Working for Euro Disney has a very pejorative connotation," says Patrick Roger, a union official at the park. "When I tell people that I work there, they say 'you poor thing.'"

MODULE 11

Managing for the Future

ORGANIZATIONAL BEHAVIOR & PROCESSES

Managing Organizational Change I

Read 5/8
Late

DEBORAH ANCONA, THOMAS KOCHAN
JOHN VAN MAANEN, MAUREEN SCULLY, D. ELEANOR WESTNEY
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MODULE 11

15.301

5/7

(Stella teaching)

Practice Wed - 12 min, + 3 min for qu

Present Fri

~~Oral Pres~~

Best present Mon

- Organizational Change

  top down or bottom up

  is change such a big thing to an org

  MIT could make a small or large change

    EdX - how does that effect it

  Unfreeze → change → re-freeze

  Why resistance to change?

    fear of unknown

    lose power? (3 lense look)

②

10 Commandments

#4 Create a sense of urgency

Power, culture, influence

(she's all over the place)

Leader driving vision

Need to negotiate

engage other people in the process

formal vs informal org

Stakeholders

motivation change/incentives

Urgency

externally vs internally induced change

establishing coallitions

L Sam in 12 Angry Men

avoid groupthink

L could we all be wrong?

(3)

- like in Carter Racing/NASA case

Networks

- how communicate?
- FB
- Email

Might step on toes if do thing wrong way

Do orgs change?
Or do they just die?

Hollywood, RIAA, Newspaper, TV
Don't want to throw away old model

~~Forgot to email~~

Good orgs encourage change/innovation
(Have you ever heard an org that failed
for being too innovative...?)

(4)

Whats your mission statement?

Threats to identity

Incentives might be aligned w/ old model

Strategy Won't Travel Case

	Culture	Strategy	Political/power
Strategy Vision			
Tactics How tools Implementation			

What was the problem?

Groups didn't like each other

didn't talk

(5)

Groups didn't respect each other
Low morale

CEO changed
└ top-down

So what did Carter do?
MBA
from consulting firm

Appointed Kelle as project leader
└ long time emp in co
tries to bridge the 2 groups
align the co much better

Weekly problem chats
SPITS
- cross functional
- short term

(6)

- Very MIT way of doing things

Softball game ← strategy

Brains vs Brawn t-shirts ← culture

~~What values~~

Culture: What values + sterotypes + assumptions to change

↳ t shirts are an artifact of this

How long did it take?

- a year
- having keller who could listen to both sides
- puts emphasis on comm
  - bottom-up ← *

Did a recipe come out of this?

Can cut + paste?

Not really ...

(7)

Or did she just do the tactics w/o the Strategy

No ~~keller~~ - context diff

Didn't recustomize ~~group~~ plan for that mine

People didn't really participate

~~[illegible]~~

Didn't assess this mine's culture

Focus on the vision again
L + goals

	Culture	Strategies	Politics
Strategy	Values Stereotypes assumptions	Communication	2 groups
Implementation	artifacts t-shirts	problem charts SPITS Softball game	keller

8

Stella is ~~trying~~ ~~to~~ working for Singapore - MIT

they want to recreate student groups

recustomize the goals - creativity

don't just copy

- Norms of people there
- Student run

ASA, UA

no trust in Greece

would the trust be part of the society

Just ent competition would not work w/o other stuff

L negitive word in Greece