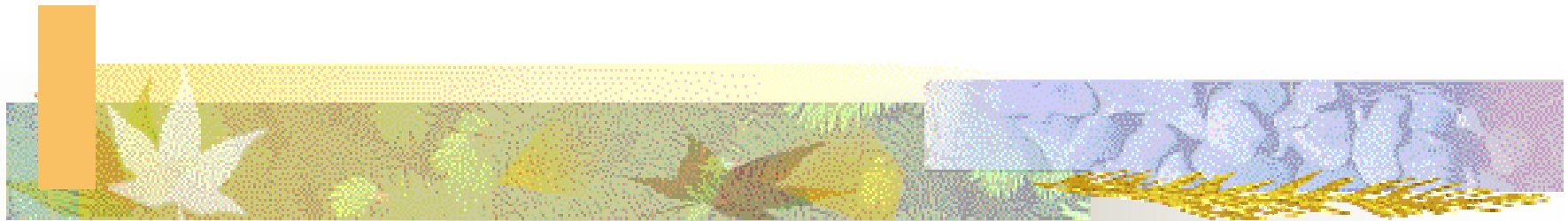


Knowledge management implications of Articuable Tacit Knowledge: Ethical and Realistic dimensions in IT



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Goals

- Test for *articulable Tacit Knowledge (aTK)* in individuals
- Map intra-organisational diffusion of aTK among IS personnel
- Testing approaches
- Definition: Practical tacit knowledge
 - *articulable implicit managerial IT knowledge*



Research questions ...

1. Are there observable tacit knowledge differences between how 'experts' handle the tacit knowledge issues in the organisation from those of novices? In other words how do experts differ in their approaches to those of novices?
2. Can we identify other tacit knowledge rich personnel based on the similarity of their answers with that of the expert group?
3. Are there certain biographical parameters (i.e. age, gender, ethnicity, years of IT experience, ACS level, highest formal qualification) that differentiate IS individuals who have accumulated more tacit knowledge from those with significantly less tacit knowledge?
4. Do people clique with one another based on biographical factors such as ethnicity? If so, does it affect tacit knowledge transfer?
5. Is there evidence of tacit knowledge 'bottlenecking' taking place?
6. Are there observable differences in knowledge diffusion patterns between IS personnel depending upon the character of the organisation?

Managerial ethics: four views

Utilitarian view

Decisions are made solely on the basis of their outcomes or consequences.

Rights view

Decisions are concerned with respecting and protecting individual liberties and privileges.

Theory of justice view

Decision makers seek to impose and enforce rules fairly and impartially and do so by following legal rules and regulations.

Integrative social contracts view

Decisions should be made on the basis of empirical (what is) and normative (what should be) factors.

(Source: Robbins *et.al.* 2003)

Jeremy Bentham (1748-1832)

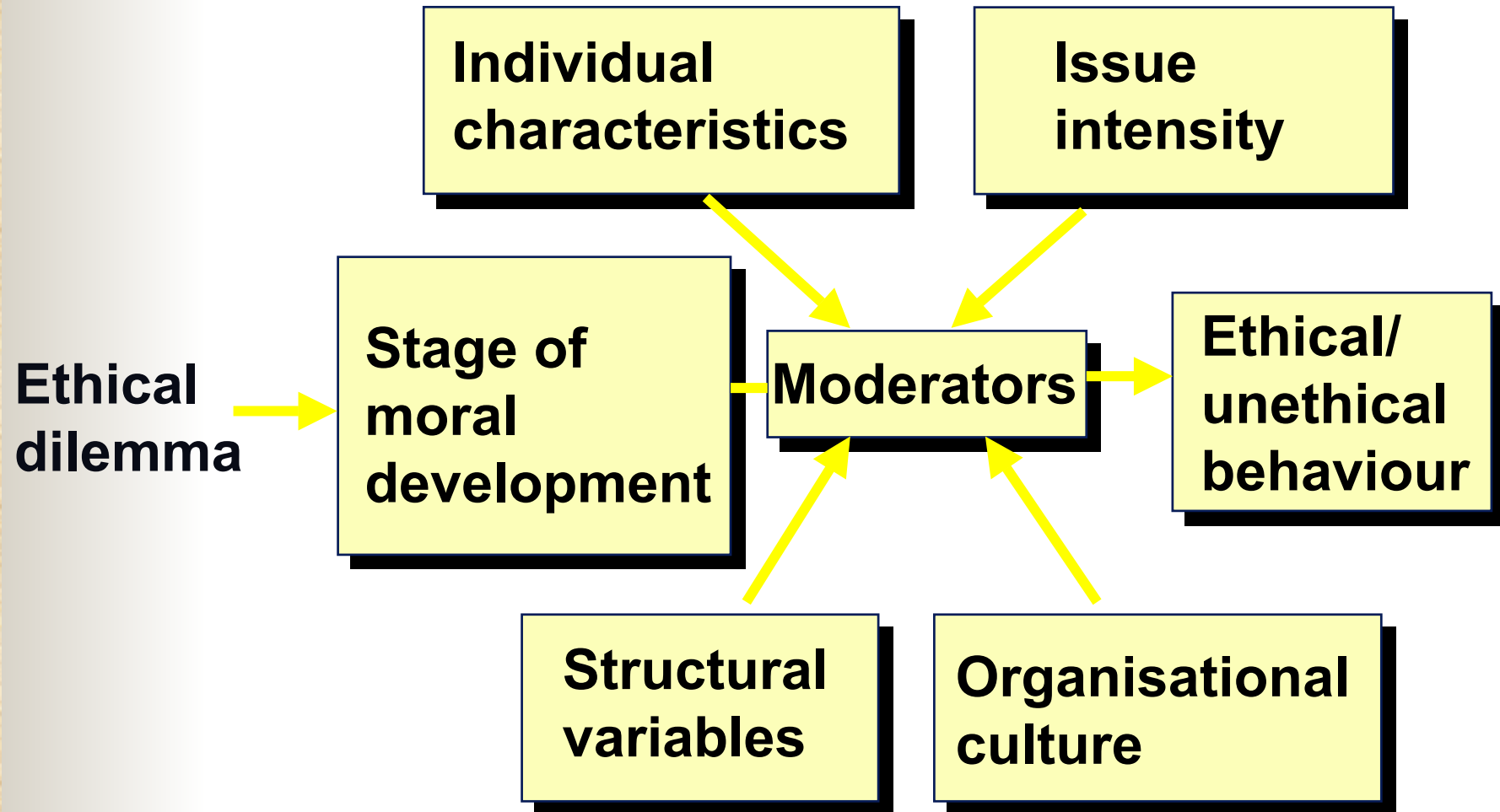
British utilitarianism

Source: <http://www.cs.ucl.ac.uk/external/atanu/jb.html>

Technolog



Factors affecting ethical behaviour



(Source: Robbins *et.al.* 2003)



What is a professional?

- **Someone who takes pride in his or her work**
- **Someone who does a good job**
- **Someone who is ethical**
- **Someone who believes in good customer service**
- **Someone who is highly trained and qualified**
- **Is licensed by the state**
- **Originally one who ‘professes’**
- **Generally white collar people licensed by the state**
 - **John (bricklayer) “is professional”**
 - **Cathy (doctor) “is a professional”**

(Source: www.codebookcity.com)



Professional

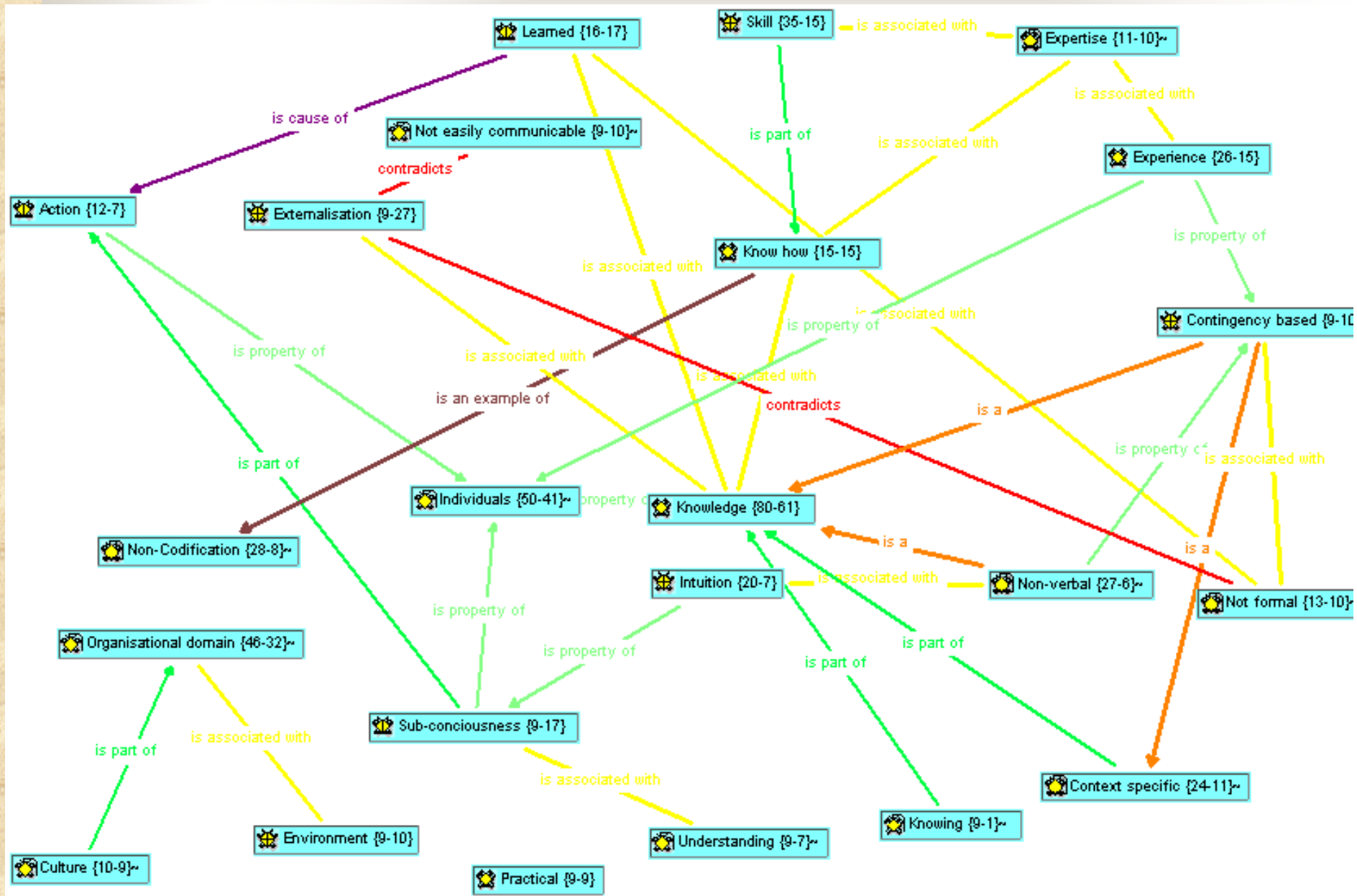
- 1. There is a requirement for extensive intellectual training that involves mastering a complex body of knowledge**
- 2. There is an expectation of contribution to society through services provided**
- 3. There is an assumption of autonomous judgment in work carried out on the basis of expertise**
- 4. There is a regulated set of behavioural standards embodied in a code of ethical conduct**

(Source: Spinello 1997 in Burmeister 2001a)



Tacit knowledge?

- Grounded theory
 - Content analysis
- Formalisms (Weber 1997)
- Articulable implicit managerial IT knowledge





Approaches to testing

- Larkin (1980)
 - Physics problem solving
- Benner (1984)
 - US Air Force
- Scott (1990; 1992)
 - Nursing mothers
- Reber (1993)
 - Anagram puzzles
- Reed, Hock and Lockhead (1993)
 - length of images
- Noh (*et.al.* 2000)
 - AI/cognitive maps
 - Case Based Reasoning (CBR)
- Herbig, Büssing and Ewert (2001)
 - nursing
 - Delphi
 - simulation technique (Frederiksen 1966)



Testing ..

- Sternberg (*et.al.* 1985-)
 - critical incident technique (interviews)
 - simulation approach (observation)
- Tests
 - explication based
 - psychological domain
 - individualistic
 - positivistic
 - student populations

Research background ..

- Busch, Richards and Dampney (1999-)
 - knowledge management domain
 - Ontology
 - theory separate from human understanding
 - Epistemology
 - largely positivistic
 - some qualitative (Stenmark 2001)
 - the importance of organisational domains
 - the contextual nature of tacit knowledge
 - the highly individualistic nature of the knowledge
- individualistic
- non-random
- IT domain
- Some triangulation
 - FCA
 - SNA
 - qualitative Emphasis on knowledge flows
- Emphasis on the IT workplace
 - NOT student populations
 - non-anonymity



Research background ..

- Major outcomes include ..
 - creation of a tacit knowledge inventory
 - tacit knowledge formalisms
 - articulable/inarticulable
 - usage of FCA (Formal Concept Analysis)
 - Wilcoxon matched pairs test
 - some difference in results *ethically*
 - Some identification of knowledge bottlenecking along
 - ethnic lines (trivial)
 - Organisational hierarchy
 - influenced by character of organisation
 - usage of IT

Tacit knowledge inventory

- 3 components
 - Electronic questionnaire
 - Javascript
 - Cgi
 - Perl
 - Html
 - Java
 - 1. Biographical ->
 - 2. Social Network Analysis (SNA)
 - 3. The inventory itself

Part A: Biographical Details

1. Gender:

Male Female

2. Please provide information pertaining to your age

Please select your age group Age range

<PLEASE SELECT>

3. If a language OTHER than English is spoken in your home environment, please select these from the lists below:

Please begin by answering the MAIN language other than English spoken in the home

.....

If applicable, select the next major language in order of usage in the home

.....

Please fill in the language related information, where applicable

And the next language after this?

.....

And yet another?

.....

4. Please provide details relating to occupational status, simply select the occupation CLOSEST to your role

What IS the CLOSEST MAIN job you are CURRENTLY in?

SNA questionnaire component

Part B: Social Network Analysis

1. Please select individuals of relevance to yourself, select the levels of importance and frequency and type of contact

Please note that you may have more than one (1) type of intra-organisational relationship with someone, if so please select another set of relationship information for the same individual

1. Select the people you network with from the lists below:	2. Add the details with these tools	3. This is the list of people you have selected, should you wish to change preferences, please use the tools provided
<p>A. Select firstly the section, then your Contacts:</p> <p>-- SECTION -- -- PERSON --</p> <p>B. Frequency of contact:</p> <p>-- CONTACT FREQUENCY --</p> <p>C. Importance of the person:</p> <p>-- PERSON IMPORTANCE --</p> <p>D. Importance of the occasion:</p> <p>-- MEETING TYPE --</p>	<p>You may use this button to clear your results and begin again:</p> <p>Clear All</p> <p>Having selected the correct combination on the left, click this button to add the details to the right window:</p> <p>Add Details --></p> <p>Should you change your mind regarding a relationship combination you have selected for any one individual, you may use this button to remove the record:</p> <p>Remove a Result</p>	<p>Here are your results!</p> <div style="border: 1px solid black; height: 200px;"></div>

2. Please provide feedback on whom you feel is SUCCESSFUL or PROFICIENT in what they do within the IT section of your organisation? Or in other words are there some GURUs you know of in the IT section ... ?

Successful persons?

When satisfied with your Social Network Analysis Relations, click the submit button below which will take you to the Tacit Knowledge Section.

SUBMIT

Tacit knowledge sample scenario

Scenario 3

You as a team leader are responsible for implementing a payroll system for another branch within the parent organisation. Although you are expected to do the bulk of the work (55%), you do have five other colleagues able to help as you so desire. The project should take 12 months in total to complete.

You have undertaken some of the initial systems design work largely yourself for the past couple of months, and you now require your colleagues to further help you with the next stage which is mainly that of coding.

You are comfortable with hierarchy, however some of your team members are not. You delegate some tasks to subordinates within your team. One of the team members who specialises in programming has been allocated some software specification work, but would prefer really just to be programming. This person has performed well on coding related tasks in the past, but at this point in time lacks project management skills which would prevent him from becoming an effective team leader. Nevertheless you feel that the person should at least do some of the software specification work.

Rate each of the following responses in relation to the given scenario. It is advisable to read all of the responses before replying.

2. Consider approaching a mentor within the organisation or perhaps the Human Resources section, in the expectation they might provide you with some advice as to how to handle the individual in question

ETHICAL

Choose one:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Extremely Bad		Neither Good nor Bad			Extremely Good	

REALISTIC

Choose one:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Extremely Bad		Neither Good nor Bad			Extremely Good	

Figure 1: illustrating scenario 3, answer 2 of the IS articulable tacit knowledge inventory

Result comparisons ..

■ Experts vs. others

- colleagues asked to choose
 - concept of proficiency
 - how did experts answer?

■ Likert scale data

- experts answering differently differently?
- which particular scenarios and answer options different?
- which scenarios greatest degree of variation ethical/realistic answers
- Identification of **expert non-experts**

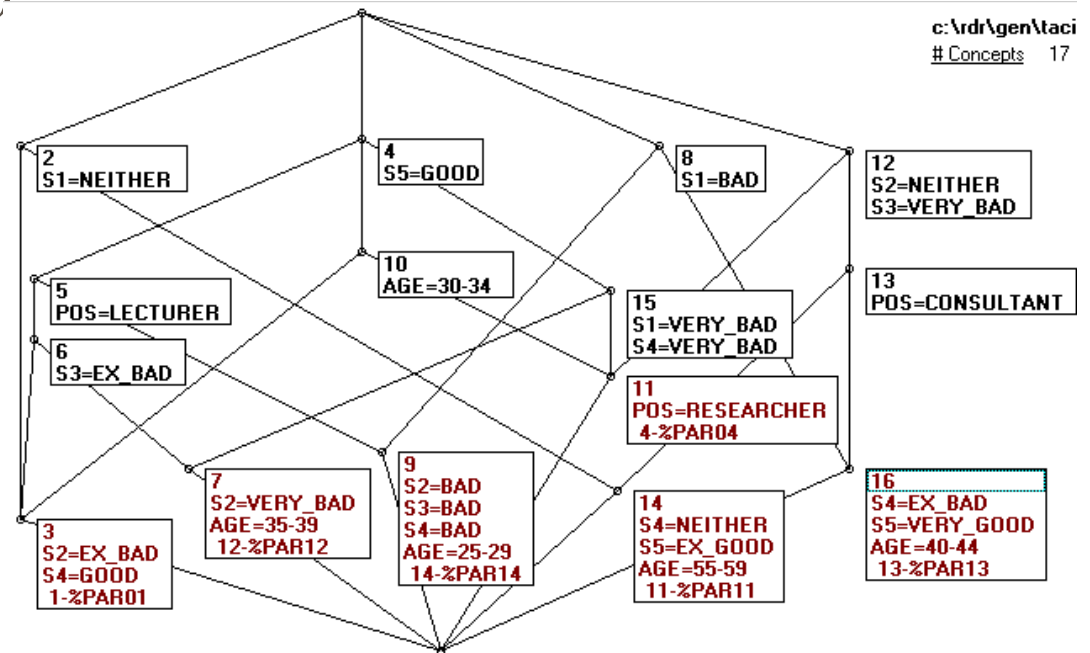


Wilcoxon test

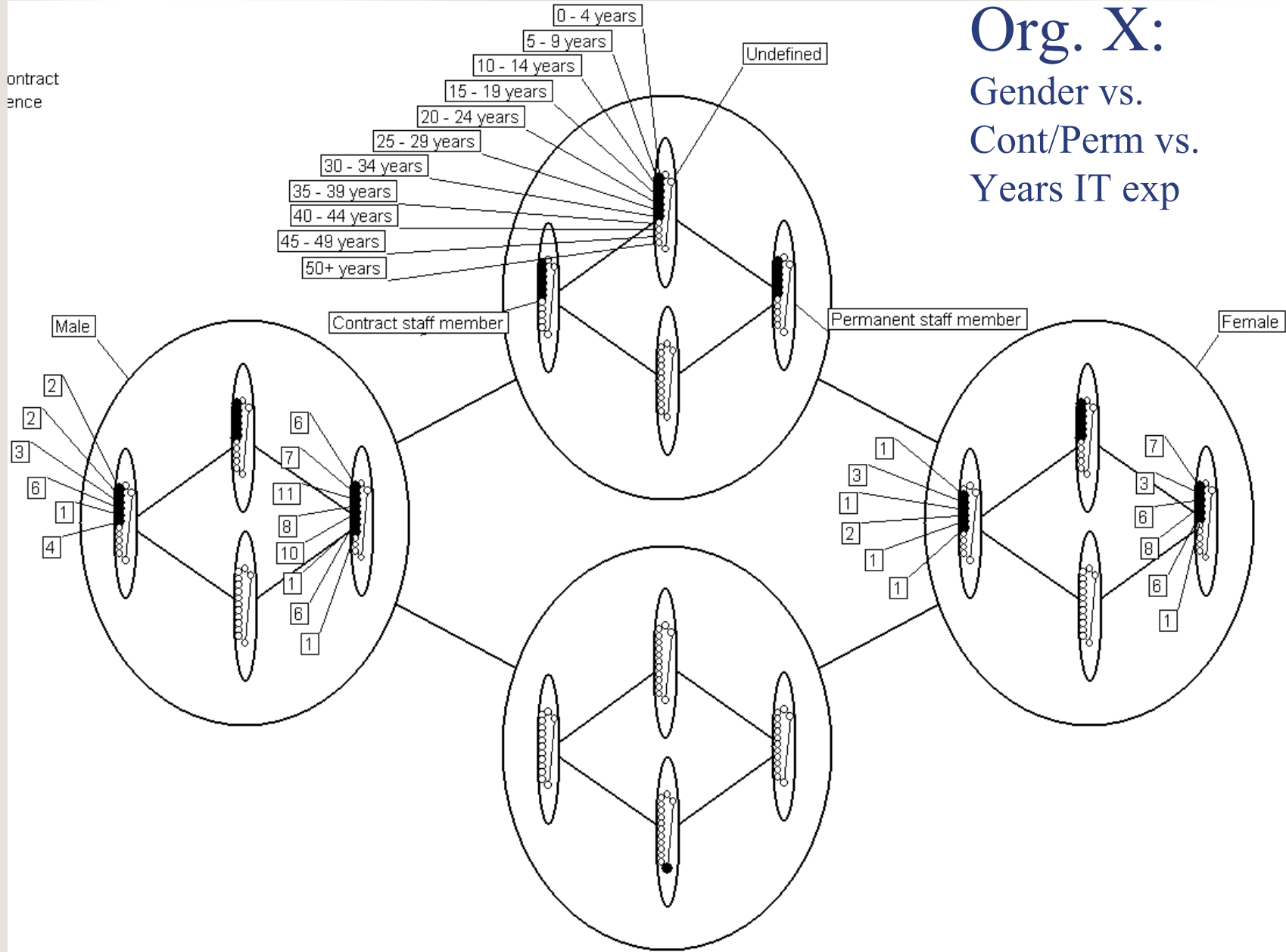
- A Wilcoxon test for matched pairs was conducted on the data
- Limitations with regard to sample size
- Granularity of this approach
 - Adoption of Formal Concept Analysis
- Results
 - No statistical significance when ENE treated with ‘other’
 - When ENE added to experts
 - Statistical significance for ethical answers

Formal Concept Analysis

- Lattice theory (Wille 1982, 1999)
- (G)egenstande (Objects)
- (M)erkmale (Attributes)
- (I)deale (Relationships)
- Lattices as a result
 - explore relationships between objects
 - used to compare with descriptive statistics



Org. X: Gender vs. Cont/Perm vs. Years IT exp



Contract
staff member

Male

Contract staff member

Permanent staff member

Female

Undefined

Scenario 8

You have been in the IS Department for about 2 years now and are coding some software that will be used to process photographs from speed cameras.

The problem is if you insist upon completing the project yourself, it will not be due on time, consequently you need to consider having other people helping you.

Several people have volunteered, but you consider that their skills are not appropriate. You are also somewhat possessive of this project and rather than have the boss come in and delegate people, you would prefer to deal with the issue of help yourself.

The fact that your last project which you mostly (70%) completed by yourself, happened to work fairly well, means that you feel confident you will be successful as an individual once again.

Rate each of the following responses in relation to the given scenario. It is advisable to rate responses before recording them.

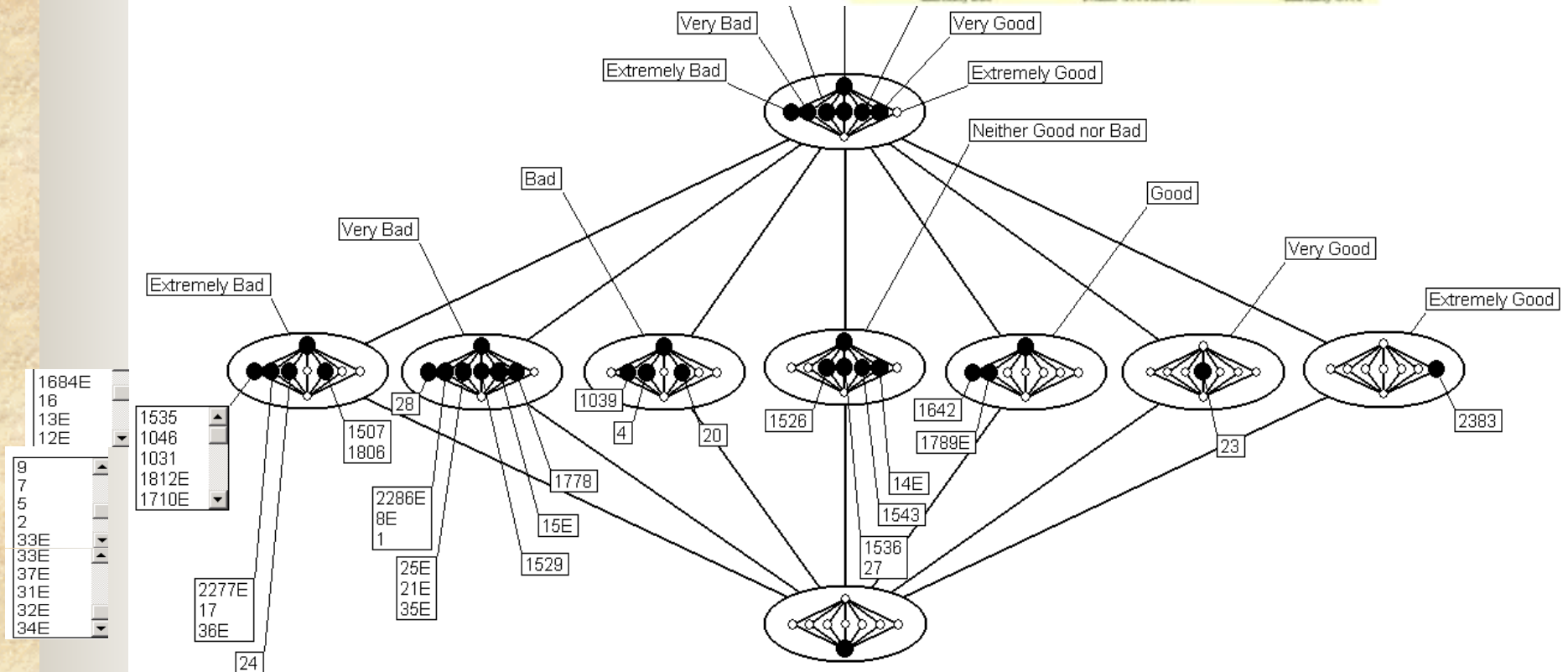
Scen8_4eth
Scen8_4rea



Org. X

4. Decide that as the boss is simply going to allocate more 'volunteers' to the project, when you have already decided an exit strategy, simply hand the project over to these 'volunteers' and go and do something else.

ETHICAL			
Choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rate	Extremely Bad	Neither Good nor Bad	Extremely Good
REALISTIC			
Choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rate	Extremely Bad	Neither Good nor Bad	Extremely Good



Org. X

Experts vs. Normal	
Experts	32
Normal	76
Gender	
Females	40
Males	68
Age	
20 – 24 years	6
25 – 29 years	9
30 – 34 years	6
35 – 39 years	28
40 – 44 years	26
45 – 49 years	19
50 – 54 years	9
55 – 59 years	3
60 - 64 years	1
Undef.	1
Job Titles	
Account manager	1
Analyst	4
Analyst: Business	6
Analyst: Technical	11
Application programmer	13
Business Development Manager	1
Business Systems Analyst	3
Clerical Support	1
Computer Engineer	1
Computer Systems Engineer	1
Contractor	9
Data Administrator	1
Data Architect	1
Database Administrator: Junior	1
Information Modeller	1
IT Salesperson/Consultant	1
Network Manager	1
Programmer	2
Project Director	1
Project Manager	19

Software Engineer	24
Systems Administrator	5
Qualifications	
High School Leaving	4
Trade Diploma	2
High School Certificate	14
Associate Diploma	7
Bachelor Degree	35
Honours Bachelor Degree	5
Graduate Certificate	2
Graduate Diploma	9
Graduate Bachelor	7
Masters	19
Doctorate	1
Higher Doctorate (probably Doctorate)	2
Undef.	1
Years of IT Experience	
0 – 4 years	15
5 – 9 years	13
10 – 14 years	23
15 – 19 years	22
20 – 24 years	19
25 – 29 years	12
30 – 34 years	2
35 – 39 years	1
Position	
Permanent	81
Contract	27
Years with the organization	
0 – 6 months	9
7 – 12 months	20
1 – 2 years	34
3 – 4 years	16
5 – 6 years	7
7 – 8 years	3
9 – 10 years	2
11+ years	17

Subordinates responsible for	
None	68
1 – 4	15
5 – 9	14
10 – 14	2
15 – 19	2
20 – 24	2
25 – 29	1
40 – 44	1
50+	1
Undef.	2
ACS Level	
ACS-0	4
ACS-1	3
ACS-2	25
ACS-3	59
ACS-4	15
ACS-5	1
Undef.	1

ACS Level 0: Clerical computing work, not university graduate level

ACS Level 1: Little practical experience in IT work, may be supervising ancillary staff

ACS Level 2: Experienced and capable of performing wide range of general IT work

ACS Level 3: Experienced in specialised IT areas, well developed liaison skills

ACS Level 4: Managing a number of teams and the allocation of resources

ACS Level 5: Typically report to CEO, manage major function, extensive IT coordination

Table 1: illustrating demographic breakdown for organisation X

Orgs. Y and Z

Gender	
Female	1
Male	6
Age	
30 – 34 years	1
35 – 39 years	1
50 – 54 years	4
55 – 59 years	1
Current job title	
Analyst: Business	1
Business Systems Analyst	2
Information Management Consultant	4
Highest Qualification	
Bachelor Degree	2
Graduate Diploma	1
Honours Bachelors Degree	2
Masters	2
Years of IT Experience	
0 – 4 years	1
5 – 9 years	1
10 – 14 years	3
30 – 34 years	2
Position	
Permanent	6
Contract	1
Years with the organization	
1 – 2 years	2
3 – 4 years	1
5 – 6 years	2
11+	2
No. of Subordinates	
None	5
5 – 9	2
ACS levels	
ACS-2	1
ACS-3	3
ACS-4	2
ACS-5	1

Table 1: Organisation Y

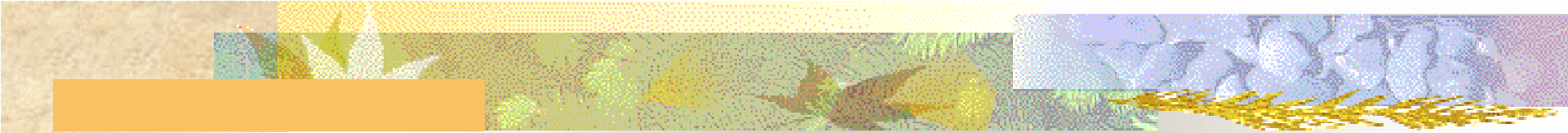
ACS Level 1: Little practical experience in IT work, may be supervising ancillary staff
ACS Level 2: Experienced and capable of performing wide range of general IT work
ACS Level 3: Experienced in specialised IT areas, well developed liaison skills
ACS Level 4: Managing a number of teams and the allocation of resources
ACS Level 5: Typically report to CEO, manage major function, extensive IT coordination

Gender	
Female	1
Male	10
Undef	1
Age	
20 – 24 years	3
25 – 29 years	2
30 – 34 years	3
35 – 39 years	2
50 – 54 years	2
55 – 59 years	1
Current job title	
Business Development Manager	1
Business Systems Analyst	1
Contractor	1
Help Desk Support	3
Network Manager	1
Programmer	1
Project Director	1
Project Manager	1
Software Engineer	9
System Administrator	1
Highest Qualification	
High School Certificate	2
Bachelor Degree	6
Graduate Certificate	1
Graduate Diploma	1
Graduate Bachelor	7
Masters	2
Years of IT Experience	
0 – 4 years	5
5 – 9 years	3
10 – 14 years	2
20 – 24 years	2
Position	
Permanent	9
Contract	3
Years with the organization	
7 – 12 months	1
1 – 2 years	3
3 – 4 years	1
5 – 6 years	3
7 – 8 years	2
9 – 10 years	1
No. of Subordinates	
None	6
1 – 4	3
5 – 9	2
15 – 19	1
ACS levels	
ACS-2	4
ACS-3	5
ACS-4	1
ACS-5	2

Table 2: Organisation Z

General differences ...

Scenario	Controversial answer (way of dealing with the scenario)	Attitudinal differences between the groups
<p>Scenario 2: A network manager wishes to install a network (IBM Token Ring). You are junior, but realise there is a better way. You have experience yourself. You are a CNE (Certified Novell Engineer). Manager has more work experience. Manager has been able to get equipment cheaply. You think Ethernet is cheaper and simpler.</p>	<p>Answer 2: Best not to 'get above your station'. You are junior, leave it there.</p>	<p>Experts differentiate ethically and realistically. In reality experts are more favourable. Non-experts don't differentiate.</p>
	<p>Answer 6: Ignore the situation. Little you can do. If something goes wrong, it's not your fault.</p>	<p>Experts differentiate ethically and realistically. Ethically, experts are more negative. Non-experts don't differentiate.</p>
<p>Scenario 4: System design for another organisation. You are a team leader, senior, experienced. Junior programmers in your team from <i>client</i> firm. Junior <i>client</i> programmers make irrelevant suggestions for project inclusion. You feel they like the sound of their own voices.</p>	<p>Answer 2: Talk to someone senior in <i>client</i> organisation. Express your concerns. Hope <i>their</i> senior management can sort out issues.</p>	<p>Both groups differentiate realistically. In reality, experts are more negative, non-experts are more positive.</p>



Scenario 6: Senior person in your section is close to retirement. Mostly an administrator at this stage of life, but likes to ‘keep his hand in’. You feel his knowledge is outdated. You respect him, but not on same ‘wavelength’. Senior person wants to help with systems analysis on a project for a client firm. He has a friend in the client firm. Your company policy is business and friends don’t mix.

Answer 1: Show senior person better way to do analysis tasks. Hope he will ‘see the light’. See your better way of doing things.

Both groups agree realistically.

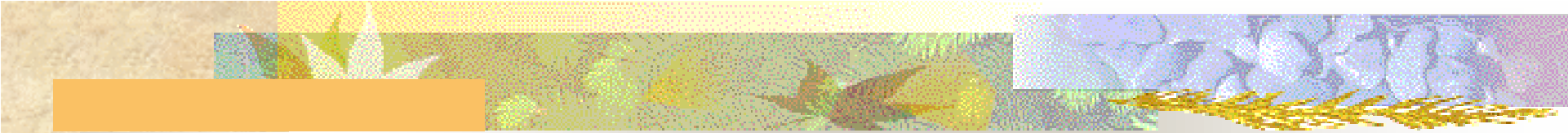
Ethically non-experts are more positive.

Scenario 8: You are with current IS job for 2 years. You are working on software project. You are possessive of project. If you insist upon completing it yourself, it will not be done on time. Some colleagues have volunteered to help you. You feel their backgrounds are not appropriate. However you really would rather not have the boss make extra staffing help decisions for you.

Answer 8: Send out an email asking for expressions of interest to help you. You are ‘casting a wider net’ in effect. Decide upon replies whom to have help you. If no replies, then accept the boss’s decision as to who will be allocated to you.

Both groups vary ethically and realistically

Experts are ethically slightly more positive, realistically slightly more negative than the non-expert group.



Scenario 10: There exist a number of ways of looking at system success. A system that meets the specifications within cost but ‘sits on the shelf’ may be successful. A system that works perfectly but over budget may also be considered successful. Another view is a system that is utilised and is on or under budget.

Answer 2: As long as clients are happy, regardless of your opinions, this is all that counts.

Both groups agree realistically.
Ethically experts are more negative about this. Non-experts are more positive than their realistic values.

Answer 4: Just because the system wasn't implemented, it doesn't matter because another team couldn't have done the job better anyway.

Both groups vary ethically and realistically
Experts are ethically slightly more positive, realistically slightly more negative than the non-expert group.

General differences ...

- Experts
 - greater awareness of status related issues
 - problems related to avoiding responsibility for issues
 - non-experts seem to be a little happier to 'pass the buck'
 - going over a superior's head less of a good idea
- taking issues outside of the organisation is less of a good idea
- see less wrong with showing superior better way of doing things
- better idea of practical logistics, what may be good in theory, not good in practice
- Little more guilt if system implemented, not quite what it could have been

Significant *ethical* differences between the two groups

<p>Scenario 1: You are a DBA. You are in a team working on a database modelling exercise which you think is trivial. UML with object orientation is being used. You feel a simple relational E-A model would suffice. Your senior, the DA has decided the UML object approach will be used. You get on okay with the DA, but even better with the CIO.</p>	<p>Answer 3: You protest to the DA, saying you have too much work to do to be involved in this trivial exercise.</p>	<p>+2.0 (agree more ethically)</p>
	<p>Answer 8: Fully go along with it and hope the DA and CIO will notice your enthusiasm. The point being you hope you will be given better projects in future in lieu of cooperation.</p>	<p>+2.0 (agree more ethically)</p>

<p>Scenario 2: A network manager wishes to install a network (IBM Token Ring). You are junior, but realise there is a better way. You have experience yourself. You are a CNE (Certified Novell Engineer). Manager has more work experience. Manager has been able to get equipment cheaply. You think Ethernet cheaper and simpler.</p>	<p>Answer 6: Ignore situation. Little you can do. If something goes wrong, it's not your fault.</p>	<p>-2.0 (disagree more ethically)</p>
	<p>Answer 7: Agree 'in principle' with the network manager hoping the network manager will support you for one of your projects in future</p>	<p>-2.0 (disagree more ethically)</p>
<p>Scenario 4: System design for another organisation. You are a team leader, senior, experienced. Junior programmers in your team from <i>client</i> firm. Junior <i>client</i> programmers make irrelevant suggestions for project inclusion. You feel they like 'the sound of their own voices'.</p>	<p>Answer 6: Listen to the junior visitors, but if the project is overdue 'wash your hands' of the matter, saying the visitors wanted these irrelevant features included.</p>	<p>-2.0 (disagree more ethically)</p>
<p>Scenario 6: Senior person in your section is close to retirement. Mostly an administrator at this stage of life, but likes to 'keep his hand in'. You feel his knowledge is outdated. You respect him, but are not on the same 'wavelength'. Senior person wants to help with systems analysis on a project for a client firm. He has a friend in the client firm. Your company policy is business and friends don't mix.</p>	<p>Answer 1: Show senior person better way to do analysis tasks. Hope he will 'see the light'. See your better way of doing things.</p>	<p>-2.0 (disagree more ethically)</p>
	<p>Answer 7: Place the 'no business/friends' company directive on the workplace noticeboard after hours.</p>	<p>-2.5 (disagree more ethically)</p>

<p>Scenario 10: There exist a number of ways of looking at system success. A system that meets the specifications within cost but ‘sits on the shelf’ may be successful. A system that works perfectly but over budget may also be considered successful. Another view is a system that is utilised and is on or under budget.</p>	<p>Answer 2: As long as clients are happy, regardless of your opinions, this is all that counts.</p>	<p>-3.0 (disagree more ethically)</p>
	<p>Answer 6: System success is just a matter of resource allocation. In this case the combination of time and/or skills wasn’t correct.</p>	<p>-2.0 (disagree more ethically)</p>
<p>Scenario 11: A new team member seems to lack basic software engineering competency. The person is more of a technical writer. You feel nevertheless he should be more technically competent. You are not the team leader, but you feel you should point out software deficiencies. The current project has critical deadlines, you are facing a fine time deadline.</p>	<p>Answer 7: Consider asking boss for extra team member, implying new team member not most suited to the project, but his skills will improve.</p>	<p>-2.0 (disagree more ethically)</p>
<p>Scenario 16: Large public sector organisation. 120 ‘back office’ IT staff, 40 ‘front office’ IT staff supporting 6,000 people. Systems integration is a major task. You are responsible for updating the organisational application portfolio. Some platforms: hardware/software have to go. You don’t actually know all the platforms the organisation has.</p>	<p>Answer 5: Establish a pilot team to evaluate organisational systems. Once management has made up its mind which systems it wants to keep, keep those, and decommission the remainder. You are stalling/’passing the buck’ basically.</p>	<p>-2.5 (disagree more ethically)</p>



Ethical differences ...

- Experts ..
 - seem more comfortable with telling superiors that their plate is full enough
 - if they are to be given extra work
 - then it is best not to grumble but tackle the task at hand
 - less enthusiastic about passing responsibility for tasks onto others
- would prefer to be noticed for working harder
 - they do seem less comfortable with being a 'yes' person
- seem to feel less at ease with covert means of gaining advantage
- more responsible for a project's success

Significant *realistic* differences between the two groups

Scenario	Controversial answer (way of dealing with the scenario)	Expert opinion
<p>Scenario 1: You are a DBA. You are in a team working on a database modelling exercise which you think is trivial. UML with object orientation is being used. You feel a simple relational E-A model would suffice. Your senior, the DA has decided the UML object approach will be used. You get on okay with the DA, but even better with the CIO.</p>	<p>Answer 3: You protest to the DA, saying you have too much work to do to be involved in this trivial exercise.</p>	<p>+2.0 (agree more in reality)</p>
	<p>Answer 4: Consider asking the DA to clarify why UML, so other team members can see the benefits of using this technique. You hope in doing so DA rethinks his decision. Either that or other team members see things your way.</p>	<p>-2.0 (disagree more in reality)</p>
	<p>Answer 8: Fully go along with it and hope the DA and CIO will notice your enthusiasm. The point being you hope you will be given better projects in future in lieu of cooperation.</p>	<p>+3.0 (agree more in reality)</p>
<p>Scenario 2: A network manager wishes to install a network (IBM Token Ring). You are junior, but realise there is a better way. You have experience yourself. You are a CNE (Certified Novell Engineer). Manager has more work experience. Manager has been able to get equipment cheaply. You think Ethernet cheaper and simpler.</p>	<p>Answer 1: Approach network manager with contacts of your own, who could offer an even better deal.</p>	<p>+2.0 (agree more in reality)</p>
	<p>Answer 7: Agree 'in principle' with the network manager, hoping the network manager will support you for one of your projects in future.</p>	<p>-2.0 (disagree more in reality)</p>

<p>Scenario 4: System design for another organisation. You are a team leader, senior, experienced. Junior programmers are in your team from a <i>client</i> firm. Junior <i>client</i> programmers make irrelevant suggestions for project inclusion. You feel they like ‘the sound of their own voices’.</p>	<p>Answer 2: Talk to someone senior in <i>client</i> organisation. Express your concerns. Hope <i>their</i> senior management can sort out issues.</p>	-2.0 (disagree more in reality)
	<p>Answer 6: Listen to the junior visitors, but if the project is overdue ‘wash your hands’ of the matter, saying the visitors wanted these irrelevant features included.</p>	-2.0 (disagree more in reality)
<p>Scenario 7: You are a senior ‘back office’ programmer, working in a team. ‘Front office’ team has been busy liaising with clients. Front office team has not communicated well with your team on this project. Documentation occurred but front office simply handed over to your team. Front office team had also made some extra ‘promises’ to the client in terms of deliverables. Not only is your team a little in the dark about total deliverables, but your group may have to redo some front office tasks, conducting some interviews with clients yourselves. Basically the project is not working to plan.</p>	<p>Answer 5: Ignore the whole issue. If anything goes wrong, chances are the front office will take the blame anyway.</p>	-2.0 (disagree more in reality)
	<p>Answer 8: Perhaps the front office is correct after all. Decide at the end of the day to follow their lead.</p>	-2.0 (disagree more in reality)
<p>Scenario 9: Your team is from an outsourced firm working on a large QA system for a public sector organisation. Many teams are involved, even from other outsourced firms. The probity (checking) team will work on the project after you. You are generally satisfied with the way things have gone. A certain component is niggling you. Your team has done as the specifications required, but you realise the system won’t properly work as is.</p>	<p>Answer 6: Fix the problem yourself even if this means unpaid overtime.</p>	-2.0 (disagree more in reality)

Scenario 12: There is a competent but slow technical services manager under you. Because of his job requirements and his having to liaise with external clients you feel it would be better if job turnaround time was reduced. The technical manager has been in the organisation for 5 years, you have only been here for 2.

Answer 7: Make an appointment to see the manager in question (perhaps do lunch). Ask him what extra resources/training he might require to improve through time.

-2.0
(disagree more in reality)

Scenario 16: Large public sector organisation. 120 'back office' IT staff, 40 'front office' IT staff supporting 6,000 people. Systems integration is a major task. You are responsible for updating the organisational application portfolio. Some platforms: hardware/software have to go. You don't actually know all the platforms the organisation has.

Answer 6: Decide to travel to all branches of the organisation to get a better feeling for the most important platforms. Those not mentioned, need not be maintained. Backup tapes exist of data anyway. Should any hardware/software ultimately be re-required, your organisation has a mirroring arrangement with another in the public sector.

-2.0
(disagree more in reality)

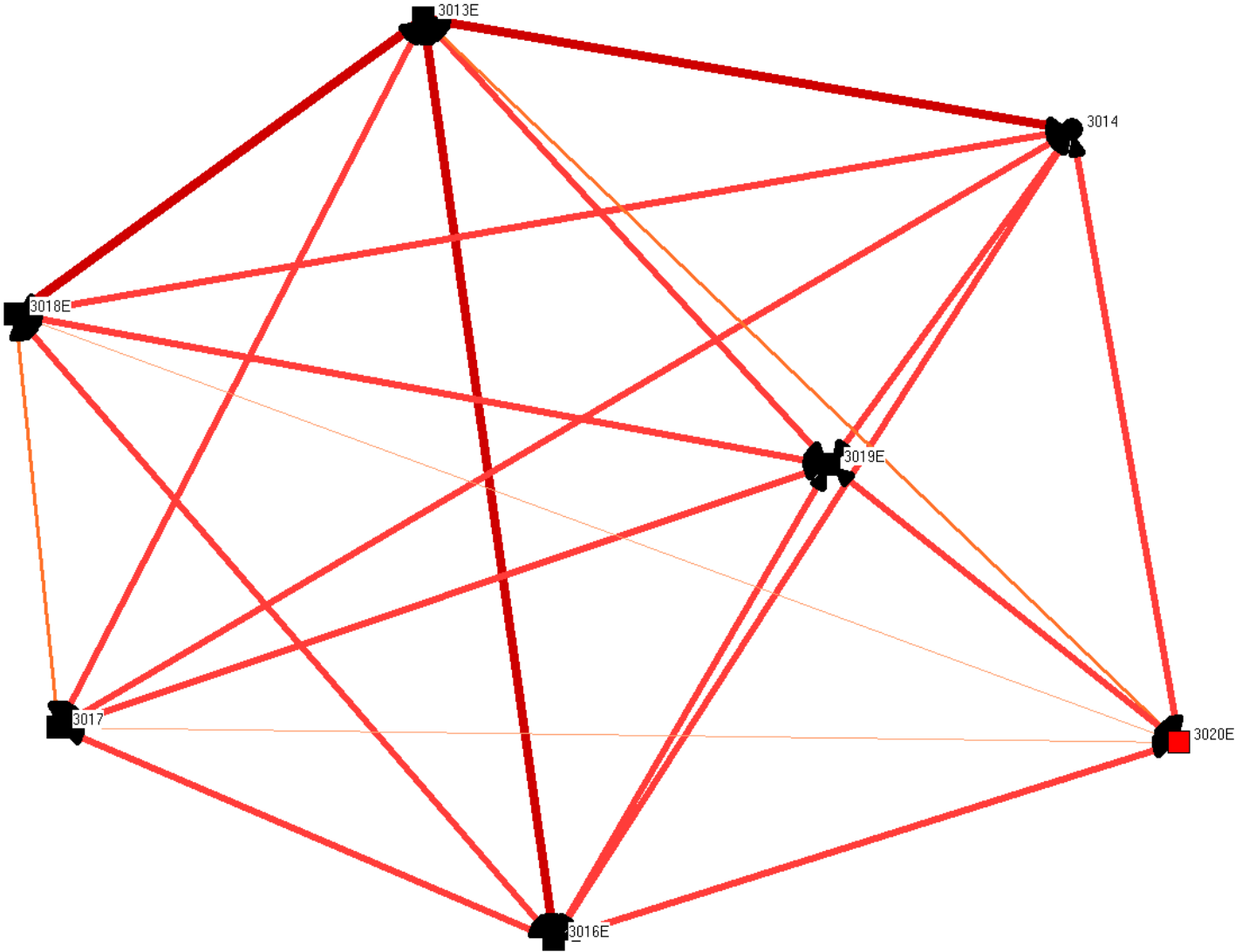


Realistic differences ..

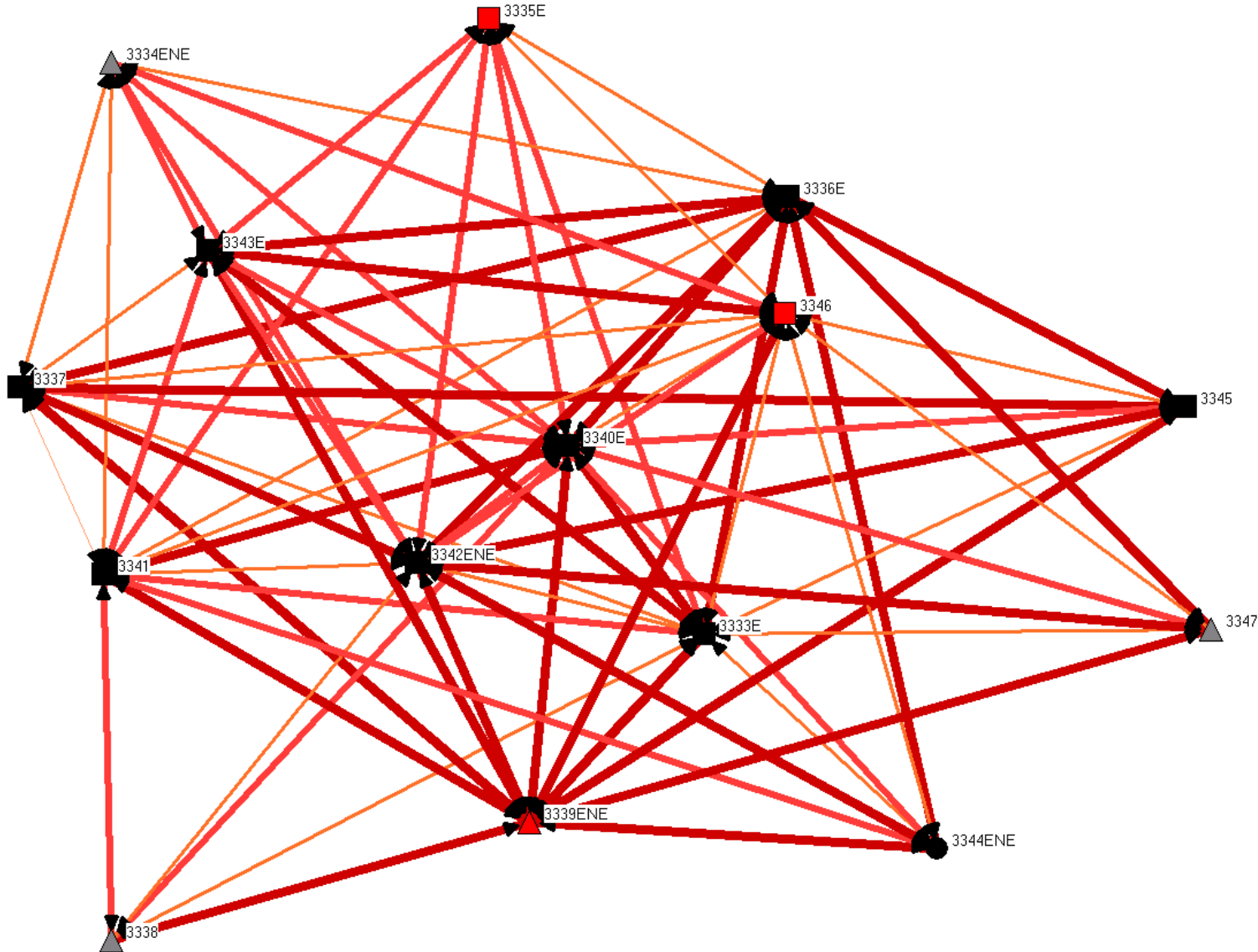
■ Experts

- seem far happier in practice to say they are already overcommitted
- seem far less comfortable in practice questioning the decisions of a superior
- agreeing with superiors if the task at hand needs to be done, seems to rate more highly with experts in practice
- seem more content in practice with offering management alternatives if they know of them
- appear less inclined practically to want to achieve means with ulterior motives
- seem less inclined to 'pay lip service
- have reduced interest in 'passing the buck
- tend to be leaders from a practical point of view, rather than followers
- are less interested in unpaid overtime
- appear less interested in practice in asking subordinates what extra help they may require
- are reluctant to commit themselves to exercises where outcomes are likely to be less clear

Org Y: Contact Frequency



Org Z: Contact Frequency





Research questions ...

1. Are there observable tacit knowledge differences between how 'experts' handle the tacit knowledge issues in the organisation from those of novices? In other words how do experts differ in their approaches to those of novices?
2. Can we identify other tacit knowledge rich personnel based on the similarity of their answers with that of the expert group?
3. Are there certain biographical parameters (i.e. age, gender, ethnicity, years of IT experience, ACS level, highest formal qualification) that differentiate IS individuals who have accumulated more tacit knowledge from those with significantly less tacit knowledge?
4. Do people clique with one another based on biographical factors such as ethnicity? If so, does it affect tacit knowledge transfer?
5. Is there evidence of tacit knowledge 'bottlenecking' taking place?
6. Are there observable differences in knowledge diffusion patterns between IS personnel depending upon the character of the organisation?



Summary

- *Articulable implicit managerial IT knowledge*
- Differences between the groups (experts/others)
- Expert non-experts
- Use of tools
- Thanks to:
 - The late C.N.G. 'Kit' Dampney
 - Dr. Debbie Richards
 - Dr. Lee Flax
 - Prof. Mike McGrath

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