



## Academic Lecture Listeners

A selection of university lectures from top universities

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## **Sell your ideas like Steve Jobs – Carmine Gallo**

Stanford University [Link: <http://www.youtube.com/watch?v=0q-wvAleUgk>]

From your notes try to answer some of these questions

1. What is the title of the presentation?
2. What does he mean by 'a new way at looking at an old problem'?
3. What's the name of his best seller?
4. What is the premise he starts with?
5. In the Steve Jobs (S.J) informal meeting video, what does he state about passion?
6. What is the reference to Richard Tate?
7. What was the reference to Starbucks about?
8. What do you understand from 'the big picture' and the reference to Twitter?
9. What do you understand from creating a story with a hero and a villain?

10. S.J presentations have 3 elements, what are they?
11. How did S.J introduce the iPad?
12. How should you bring numbers into a presentation?
13. What is discussed on the topic of 'picture superiority'?
14. What is discussed on the topic of 'emotionally charged events'?
15. What are the 3 main points with mastering stage presence?
16. Are you selling dreams or products and why?
17. S.J talks about the Apple Brand - name some of the things he says?
18. What is the 'one more thing...' in Apple presentations?
19. The final summary is....
20. Critical thinking: Do you agree with this lecture? What did you like / dislike? Can we all be like Steve Jobs? Maybe, some people have more charisma than others? Can we always be passionate about everything we present? Surely, Apple's 'think differently' and 'believe in your dreams' are intelligent marketing phrases - made to make us think we are special, when we are really the same as everyone else? Anything else?

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## **Sell your ideas like Steve Jobs – ANSWERS**

1) What is the title of the presentation?

The new rules of persuasive presentations

2) What does he mean by 'a new way at looking at an old problem'?

How do we sell our new ideas effectively?

3) What's the name of his best seller?

The presentation secrets of Steve Jobs

4) What is the premise he starts with?

'A person can have the greatest idea in the world but if that person cannot convince others - it doesn't matter!'

5) In the Steve Jobs (S.J) informal meeting video, what does he state about passion?

People with passion can change the world for the better.

6) What is the reference to Richard Tate?

Created a board game called 'Cranium' – everyone said it wouldn't work, followed his dreams, inspires self-esteem, HQ is fun and enthusiastic, sold a million games with no advertising. Great ideas come from feeling – don't take No for an answer.

7) What was the reference to Starbucks about?

The CEO in interviews doesn't talk about coffee but selling a workplace

8) What do you understand from 'the big picture' and the reference to Twitter?

The brain craves meaning before details and if you can't summarise your idea in 140 characters then your sales pitch isn't good. (Examples; Tiger / Morgan Stanley / MacBook Air slide 'the thinnest notebook' / the Beatles on iTunes)

9) What do you understand from creating a story with a hero and a villain?

Presenting is like telling a good story and people want a hero and a villain. Examples were that IBM and Apple. Also it can also be problem and a solution, example of the I-phone)

10) S.J presentations have 3 elements, what are they?

To inform, educate and entertain

11) How did S.J introduce the iPad?

By identifying its tasks and using the Netbook as the villain.

12) How should you bring numbers into a presentation?

By contextualising them. Examples; 5GB iPod = 1,000 songs in your pocket / Cisco 320 TB router 'powerful enough to download congress library in 1 sec'

13) What is discussed on the topic of 'picture superiority'?

A picture aids 65% memory processing only 10% using a word. Brainstorm ideas before making a p.p.t - pictures means using more thought.

14) What is discussed on the topic of 'emotionally charged events'?

More emotion/feeling in p.p.t the more the presentation is remembered. This is because it releases dopamine into the brain that records the event. Examples; SJ taking the MacBook Air out of an envelope.

SJ introduces the iPhone by not showing it first but by engaging the audience 'today Apple will reinvent the phone'.

Also Bill Gates talking about Malaria – he pretends to release Malaria Mosquitoes into the room.

15) What are the 3 main points with mastering stage presence?

65% of impression on people is through facial/gestures/body language

1) eye contact (80-90%). 2) open posture. 3) hand gestures

16) Are you selling dreams or products and why?

Selling dreams - people only care about themselves and what's in it for me??

17) SJ talks about the Apple Brand - name some of the things he says?

Think differently, people need inspired products to change the world, serve the people, in craziness we see genius, focus on the customer to articulate vision.

18) What is the 'one more thing...' in Apple presentations?

Dream bigger and believe in your dreams.

19) The final summary is....

Deliver and communicate your ideas with confidence, clarity and passion.

20) Critical thinking: **your own ideas here!**

## **Infrastructure development in the UK– Lord Foster**

Oxford University [ <http://www.youtube.com/watch?v=MPWctvB1ZvI> ]

From your notes try to answer some of these questions

1. What is the outline?
2. What is his definition of 'infrastructure'?
3. What is the point about the two sculptures 'Rodan sculpture' and 'Henry Moore'?
4. What are the problems that the UK is suffering from at the moment?
5. What are the problems concerning Heathrow?
6. Who is responsible for the infrastructure of the environment?
7. Why does he show a picture of a classic car, and the iPhone?
8. Why does he discuss carrots and food?
9. What is said about past inspirations like 'Bazellgette', 'Stevenson', 'Turner', 'Glenfinnan' and 'crystal Palace'?

10. Why does he focus on 'William Henry Barlow'?
11. What is a 'haha'? And how does it connect to the talk?
12. What are 'green belts' and what is difference between the UK and Europe here?
13. What is the landscape initiative?
14. How can this new system help shipping?
15. What is the suggestion for congestion in London?
16. What are the parallel benefits of replacing the Thames Barrier?
17. What is important concerning airport passenger numbers and Heathrow?
18. What can the proposed new airport bring?

19. What are the upsides and downsides of this initiative?

20. How would travelling to the Thames estuary airport work?

21. What will happen to Heathrow?

22. Where will the finances come from?

23. Summary

24. Why does he finish with Big Ben 'One minute to midnight'?

*Critical thinking: What do you think about this lecture? Do you agree? What don't you agree with? Do governments plan too much in the present? Does his lecture focus more on the new airport than the proposed spine joining the north to the south? What could be the problems with the proposed landscape initiative train lines? Do people want cycling/hiking paths next to these? Would there be a view or any scenery to look at on the train? What could be problematic with the new orbital and airport? Heathrow has just opened a new terminal and passenger transport system - what will happen to that? Is it a good investment for a country in an economic crisis, crippled by debt? Should the UK invest no matter what? What could be the alternatives? Anything else?*



## Infrastructure development **ANSWERS**

1. What is the outline?

Infrastructure – a project with Halcrow the engineers and Volterra

2. What is his definition of 'infrastructure'?

Uses a picture of a girl jumping freely in a field to show confidence in the future, awareness of the needs to come, and an investment into future generations. The quality of life we enjoy today is based on the initiatives of people in the 19C.

3. What is the point made about the two sculptures 'Rodan sculpture' and 'Henry Moore'?

Public space has a cultural dimension - nobody knows who these belong to. Henry Moore gifted in 1967. Since 2001 denied ownership due to maintenance. **Point:** that cultural dimension is important - appearances matter. Magnifies the environmental at the Marco scale as all these bodies of governance fail to take responsibility at a micro scale.

4. What are the problems that the UK is suffering from at the moment?

Ports - difficult to move the goods from the ports around the countries. The physical infrastructure is insufficient congested roads; railway systems are at saturation point, no known infrastructure to come. Electricity power stations are running down. We need to bring broadband to the North, unemployment in the North is twice that of the South, house shortage in South East, an airport that once was a vital hub is being overtaken.

5. What are the problems concerning Heathrow?

Once a vital hub is now being overtaken and needs development and expansion. Also, its situation exposes risk and noise to a much larger population of people than anywhere in Europe. Statistically you could argue that an accident waiting to happen.

6. Who is responsible for the infrastructure of the environment?

Shows a chart of all bodies. Government and non- cabinet departments plus executive agencies - **Point:** it is diffuse. There is hope in that the HM Treasury has an infrastructure plan for 2010. One missing significance omission from the report is aviation. **Question:** Does a body have strength in long-term judgments?

7. Why does he show a picture of a classic car, and the iPhone?

Innovators / engineers in the past have been concerned with the aesthetic / civic dimension, the beauty of the lines, universal appeal. SJ father was a classic car restorer. Inside is as beautiful as outside.

8. Why does he discuss carrots and food?

Carrots goes through a beauty test / for every 3 baskets of food 33% (40% in India, Singapore 20%) is wasted. 1.3b tonnes thrown away / cost 1b to dispose. Silver lining is infrastructure to create plants (moral imperative to reduce waste) that create energy from waste. Example is a plant in the Netherlands 300,000 tonnes of waste services 70,000

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households. **Point:** the processing of waste to energy. At a community city-wide scale shows great potential.

9. What is said about past inspirations like 'Bazelgette', 'Stevenson', 'turner', 'Glenfinnan' and 'crystal Palace'?

Joseph Bazalgette 1819-1891 - integration of a sewer system incorporated district & circle transportation below ground, lightening systems, planting trees. Civic dimension is inexplicitly woven into the utilitarian response. George Stevenson 1781-1848 example growth of the railway in 1830 was 150km / 1850 was 11,500km. Turner 1844 heroic works of the beautified the landscape. Glenfinnan Viaduct 1897-1901 reflected the landscape tradition. Celebrating industry through wallpaper - crystal palace great exhibition in 1851 - celebrates the confidence and belief in the future. (Discusses the innovation of Stevenson's gauge used in modern railways today.)

10. Why does he focus on 'William Henry Barlow'?

William Henry Barlow 1812-1902 tradition of the great engineers - St Pancras. The construction shot showed he planned for growth **Point:** - looking far ahead, optimism about future generations / not concentrating on the present

11. What is a 'haha'? And how does it connect to the talk?

Lancelot 'capability' Brown 1718-1783 inspired by French painter for their idealised landscape. Part of the National heritage tradition is called a 'haha' - picture shows a landscape of a landowners land and how they look to the horizon but their land stops half way through. A subtle demarcation line - clever gives an illusion the landscape goes on forever. **Point:** this tradition is to be part of the proposal for the infrastructure spine.

12. What are 'green belts' and what is difference between the UK and Europe here?

Fortunate to have green belts around our cities. Looking at continental Europe to see the opposite effect when no greenbelt protection - **Point:** urbanisation and no greenbelt land. 2nd Point: economic regeneration should not be in the greenbelts as the problems runs deeper than this and more strategic

13. What is the landscape initiative?

The plan is the spine of the UK Connectivity - greater opportunities and equalise greater prosperity. Bringing together things that are normally quite separate such as power, communication, rail, bike, hiking (green fingers) to enhance the countryside rather than spoiling. The idea is depress the train into the landscape, dig a trench, creat banks and cover power lines. The bigger picture is 4 rail lines (high speed x 2, local, freight) power, communication, water lines, cycling and hiking = landscape initiative. **Point:** without this in isolation any new train, lots of structures, other impacts on landscape. Sensitive areas would be tunnels.

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14. How can this new system help shipping?

Liberate the potential of the UK as a freight centre, take advantage of shipping trades and take away pressure of containers - transportation is 80% containers by road / 20% by rail - equalise to 50:50 road/rail- take pressure off the road. (**Point:** would resist the short-term pressure of building more roads).

15. What is the suggestion for congestion in London?

The orbital - By avoiding London completely / speed up the movement of north to south. The larger initiative would be for funding of a significant orbital that bypasses London. This can be seen through the sea routes entering the UK and using Heathrow to become a hub connecting south and north.

16. What are the parallel benefits of replacing the Thames Barrier?

A replacement for the Thames Barrier 1984 - create a barrier which is an integral part of the concept related to a Thames Hub, 150% of land more protected, a proposed airport, crossing below, tidal energy farm, develop the estuary areas to satisfy the housing needs in the south east. Obvious economies of combining these together.

17. What is important concerning airport passenger numbers and Heathrow?

Projected Airport passengers are growing (double 2010 200mppa to 2030 400mppa).

European competitors growth/ unused capacity for Paris 26.5%, Frankfurt 25.5%, Amsterdam 30%, Heathrow 1.5% (how do we catch up?) - all disadvantages are advantages and leapfrog and take advantage of location not being constrained.

**Point:** as the world changes - Heathrow doesn't have any direct flights to emerging markets/ countries (example: is that if fly to Latin America - have to fly through Madrid) weekly flights but not daily like European competitors.

18. What can the proposed new airport bring?

Using the estuary - no flights over London, all approaches are over water.

19. What are the upsides and downsides of this initiative?

Downsides through not doing anything at all GDP in 2050 - will decrease. Brazil is important for growth. Upsides: the site is a mixture of agriculture, rural - least dense area, high deprivation. Addressing cultural heritage, relocation, comparison, birds 20km of bird habitat. (60 km replacement area). Bird strike zone - establish technology to frighten birds away. All airports are shared with birds - constant.

Upsides: Last flight into HK airport KaiTak- created an island from a mountain to make Chek Lap Kok (**point:** difficulties have resulted in optimism and widely received by customers). The move from one airport close to one open happened overnight.

20. How would travelling to the Thames estuary airport work?

Through park and ride using the orbital and the accessibility all going by rail locally and connecting to the orbital line to airport. **Interesting point:** Manchester to Heathrow 3:15 min new mode 1:30.

21. What will happen to Heathrow?

Airport closed and becomes a new community by combining University, commercial, special economic zones, technological parks, entertainment and incredible green lungs.

22. Where will the finances come from?

Orbital £20bn, airport £20bn, barrier crossing £6bn, infrastructure upgrade £4bn total £50bn. Heathrow debt of £12bn but estimated worth of £50bn possible £20bn sold off. But each are separate components and therefore fundable.

23. Summary

Rebalancing the UK, significantly improving the connections to Europe so it can feed into Europe, globally connects to the established markets but also the emerging markets too. It becomes a significant hub more so than the other European ones.

24. Why does he finish with Big Ben 'One minute to midnight'?

To possibly emphasise that time is not on our side and we need to work quickly if we are to do well in the current changing climate.

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## **How we do we search for life on other worlds?** Dr C. McKay

NASA [ <http://www.youtube.com/watch?v=meTsy1ktQIY> ]

From your notes try to answer some of these questions

- 1. Why is the search for life interesting?**
  
  
  
  
  
  
  
  
  
  
- 2. Why does he use the fruit of oranges and apples graph?**
  
  
  
  
  
  
  
  
  
  
- 3. Where can we get the 2nd genesis of life form? What are the 3 examples given?**
  
  
  
  
  
  
  
  
  
  
- 4. What is the outline of the talk?**
  
  
  
  
  
  
  
  
  
  
- 5. What is the difference between Mars and Venus in respect to evidence?**
  
  
  
  
  
  
  
  
  
  
- 6. Describe the composition of the atmosphere of Mars.**
  
  
  
  
  
  
  
  
  
  
- 7. What are the current missions to Mars?**
  
  
  
  
  
  
  
  
  
  
- 8. What is the picture of 'Nanedi' about? Where is the water now?**

**9. What is the evidence that water existed?**

**10. Why doesn't Mars look like Earth now?**

**11. What is important about the Gusev Crater and the connection to Earth?**

**12. Is NASA looking for fossils?**

**13. Are Mars and Earth biologically isolated?**

**14. How will NASA go about searching for 'forensic evidence'?**

**15. Where is the best place on Mars to do this? And what are the limitations?**

**16. What is the evidence that Europa has water and possible origins of life?**

**17. How are they going to collect samples?**

**18. The third example of a planet is 'Enceladus', where is this? And what is the evidence for life here?**

**19. What do the scientists want to determine with the samples? And how can they do this?**

**20. Summary.**

**Critical thinking:** *Do you agree with everything that was said? What are the foreseeable problems with some of these ideas? Can research really viable when based on photos and pictures? What are the advantages of finding evidence of biological life on other planets? Isn't it possible that we will contaminate the planets with biological life by sending spacecrafts to them? Micro-organisms are important, but surely what we are really searching for is intelligent life forms? What about the funding for such research, who is responsible for the billions of dollars needed? Shouldn't more research be placed into more environmental ways of conserving life on Earth? Anything else?*

## **How we do we search for life ....ANSWERS**

### **1. Why is the search for life interesting?**

Overall, the hope of discovering a 2nd Genesis of life.

But also, comparative biology - to compare the similarities of life to our own and also to know that life has common characteristics throughout the universe not just in Earth

### **2. Why does he use the fruit of oranges and apples graph?**

To emphasise that the search for another origin of life is like having only oranges but you want apples - other fruit to compare.

### **3. Where can we get the 2nd genesis of life from? What are the 3 examples given?**

Make in a laboratory / find on Mars or Europa / listen for the calling

### **4. What is the outline of the talk?**

To discuss what are the best worlds for searching for evidence of life in the solar system and how they plan to do it.

### **5. What is the difference between Mars and Venus in respect to evidence?**

Mars is number 1 as it has a past of liquid water, and atmosphere which in turn suggests that life could still be there. However, Venus is a hot sulphuric bath where any evidence of life has probably gone.

### **6. Describe the composition of the atmosphere of Mars.**

CO<sub>2</sub>: 95%, N: 2.7%, Ar: 1.6%, H<sub>2</sub>O: 0.03 - 0.1%, O: 0.13%, CO: 0.07%.

The Problem is with pressure being 100x finer than Earth. Earth is about 10 / Mars is 1000. This creates a triple point that makes dry ice.

### **7. What are the current missions to Mars?**

4 main missions- Mars Global Surveyor (lost), Mars Odyssey, Mars Exploration, Mars Express, Mars Reconnaissance Orbiter.

### **8. What is the picture of 'Nanedi' about? Where is the water now?**

It shows water flow evidence - a probable canyon. The water is 'possibly' in the Polar regions.

### **9. What is the evidence that water existed?**

Rover landed - Meridani Panum - layered rocks, more salt, Blueberries (concretions), salt distribution all give rise to a geological estimate that 3 billion years ago there were layers of water maybe 500mm thick - possibly like Earth (image of wet Mars)

### **10. Why doesn't Mars look like Earth now?**

Definitely not because it is further from the sun like some theories suggest BUT it's too small 1/10th of Earth, it has no plate tectonics or a magnetic field. The no plate tectonics are a



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significant point because important in recycling and carbonising the planet. The temperature is -15. Evidence suggests it has been always cold with images that show no weathering like a cold dry climate. Earth has chemical weathering.

**11. What is important about the Gusey Crater and the connection to Earth?**

It shows a crater lake and a large river. The surrounding area is a moonscape suggesting that it has never seen rain more evidence of cold temperatures and ice. The connection to Earth is that places like the Dry Valley of Antarctica and Lake Vanda / Onyx river are used for study as they replicate similar conditions to Mars. The point is that micro-organisms have been found here and used as a case study shows that 'life grows in climates like Mars'.

**12. Is NASA looking for fossils?**

No, fossils tell us only that there was life on Mars BUT not the nature of that life or it's relationship if any to life on Earth. He discusses all life on Earth is connected to DNA - one blueprint. The question is Martian life linked to the same tree of life?

**13. Are Mars and Earth biologically isolated?**

No, rocks and substance have exchanged - 30 rocks found on Earth have come from Mars. These are all possible meteorites. example; Rock ACH84001,0. This has bubbles of gas that are the same as the composition of the atmosphere measured by Viking. BUT does the process go the other way?

**14. How will NASA go about searching for 'forensic evidence'?**

Organisms preserved in permafrost. The evidence comes from research in Siberia where 'viable' bacteria has still been found alive in Permafrost that is 3.5 million years old. They are drilling in the Antarctic 'Beacon Valley', which is 8 million years old. The point is to develop arctic drilling and take this to Mars BUT there needs a calculation for contamination.

**15. Where is the best place on Mars to do this? And what are the limitations?**

In the South - this is seen as the old part where there is ice. Also there is evidence of crustal magnetic features in the rock around this area, thus suggesting that the area is relatively undisturbed and ancient.

The limitations are based on long term dormancy - the factors that determine how long bacteria can survive in ice. These are 1. Thermal decay and 2. radiation ( natural radioactivity from the crust) 3. Decay of the organism.

**16. What is the evidence that Europa has water and possible origins of life?**

Europa is a moon of Jupiter. It's ice covered - this is being determined from 2 points. 1. Is a photo that shows its morphological features are 'ice bergs' on a frozen ice BUT more convincingly 2. Europa has a strong magnetic field indicating that there is a conductor causing a disturbance - this conductor is 'global salty water'

Origins of life are 2 points 1. Plausible origin of life from 'chemosynthetic organisms' derived from Sulphur or a hot vent. 2. Plausible ecology because no O<sub>2</sub>, no light, no organic input 3 possible ecosystems. An example is the sub surface of Africa - radioactive decay.

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**17. How are they going to collect samples?**

Ice Clipper Sample Return Mission. A small space vehicle will release a copper ball onto the surface of Europa causing an impact similar to a car bomb, this in turn will release particles from the surface into the air, and the space craft will collect these samples and bring back to Earth.

**18. The third example of a planet is 'Enceladus', where is this? And what is the evidence for life here?**

Enceladus is a small moon of Saturn. Pictures have revealed that jets of H<sub>2</sub>O are coming out of its South Pole spewing into space. Presumably, coming from a pressurised pocket of water from under the surface of the planet. Fly through the plume with a similar space craft as Europa.

**19. What do the scientists want to determine with the samples? And how can they do this?**

Firstly, it is emphasised that the sample will be 'dead' and 'microscopic'. They want to determine if it is biological in origin.

If it is like us then it can be done quite easily by amplifying the DNA. If it is Alien then much harder but perhaps more interesting.

A good strategy is the 'Lego Principle' looking at the small components that make up life.

20L amino acids, 5 nucleotide bases, few D sugars - these are the common property of biology. The point is that an alien could use a different set BUT generally these are the building blocks of life. They can use research of analysis of amino acids by McKay that states Abiotic distribution is smooth / Biotic distribution is spiked - so a measurement strategy is in place.

**20. Summary.**

The optimistic search is that we will find life

## Natural strategies for high-ranking health - Dr Stephen Devries

University of Arizona [ <http://www.youtube.com/watch?v=Oldcxc5OsWI> ]

From your notes try to answer some of these questions

1. How is Google connected to the perfect place for optimal health?
2. What is the outline of his talk?
3. What is the prioritising in cardiology at the moment and what are the risk cuts?
4. What was the study using the Mediterranean diet? And the results?
5. What is the important point about the 'health of the next generation'?
6. How should we look at fruit?
7. Discuss the relevance of green leafy vegetables, especially spinach.
8. What is significant about blueberries and strawberries?

**9. Discuss carbohydrates, diabetes and Glycemic load.**

**10. Describe the nutritional benefit of a 'whole grain' and its 3 parts. Give examples of whole grains.**

**11. What is misleading about the labelling of whole grains?**

**12. What are the four nutritional parts to nuts and what has research proven?**

**13. Many people, who are losing weight, worry about the calorific content of nuts. What was the advice?**

**14. Why is nutrition not part of treatment for heart disease? What is the institute doing to help trainee cardiologists?**

**15. What was said about exercise?**

**16. Are the mind and body connected? What research demonstrated this?**

**17. Does meditation help?**

**18. What is 'biophilia'? And what research demonstrated a link?**

**19. Do breathing exercises work in reducing blood pressure?**

**20. Summary.**

**Critical thinking:** *What do you think of this lecture? Has anything surprised you? If so, what? what was missing from the lecture? Did some examples he gave need more support? Can you really use rabbits as an example for social interaction? Don't we already know that nutrition is key to a healthy life? Why don't people eat healthy food, meditate and do exercise? Are we too reliant on medicine and doctors? Why don't doctors suggest food and nutrition as a treatment? Governments in the UK already promote 5 a day fruit and vegetable portions, is this working? what could be the real underlying problem? anything else?*

## Natural strategies for high-ranking health **ANSWERS**

1. How is Google connected to the perfect place for optimal health?

Lots in common in people searching for health answers and health follows similar algorithms / ranking. Ranking - nutrition and quality links - mind and body

2. What is the outline of his talk?

To express that medicine is not front and centre / to discuss the ideas of modern cardiology / establish and promote education of natural nutrition through the non-profit organisation of Gaples Institute.

3. What is the prioritising in cardiology at the moment and what are the risk cuts?

'Stents' these are devices that prop open blood vessels. However, the risk cut is 0% in preventing a heart attack. Nutrition on the other hand, has 72% risk cut. Therefore, the goal is preventative medicine rather than using the high technology of Stents.

4. What was the study using the Mediterranean diet? And the results?

Lyon Heart Study. 423 patients with a prior heart attack randomised into 2 groups. Group 1 - a low fat diet / Group 2 - a Mediterranean diet (more fruit, vegetables, fish, nuts, olive oil, canola oil, whole grains, less red meat more fish).

Results: 72% fewer heart problems with those on a Mediterranean diet over 5 years.

One significant point: The graph shows a quick change in health, which many people used to believe that changes in diet took longer. (Circulation 1999;99;779)

5. What is the important point about the 'health of the next generation'?

Expectant mothers eating this type of diet can reduce childhood asthma by 70%. Many people believe that asthma and similar diseases are genetic but this study shows that nutrition can activate genes differently which in turn alters the outcome. (Thorax 2008;63;507)

6. How should we look at fruit?

look at it as nutrition pills and tablets - medicine!

7. Discuss the relevance of green leafy vegetables, especially spinach.

1 serving of green leafy vegetables a day can reduce coronary risk by 23% (Ann Intern Med 2001; 134;1106) It cannot be put in a pill as it can't be replicated. The ingredient's list is too complicated.

8. What is significant about blueberries and strawberries?

They are anti-oxidants - blood vessels flexible lower BP. Trial - 3 servings a week for 93,000 women over 18 years = 34% reduced risk of heart attack (Circulation 2013;127-188)

9. Discuss carbohydrates, diabetes and Glycemic load.

Carbohydrates are another important part of nutrition especially their ability of releasing sugar. By 2050 1:3 adults will be a diabetic. ( CDC - Centre for Disease Control) Glycemic

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Load is the amount of sugar released from food with high >20 / med 11-19 / low <10.  
Surprisingly- Donut 14 / Bagel 33 based on starch and weight  
White potato 29 / sweet potato 15

10. Describe the nutritional benefit of a 'whole grain' and its 3 parts. Give examples of whole grains.

Nutritional benefit is finer, B vitamins, Flavanoids. 3 parts are the bran, germ, endosperm (starch) Oatmeal, quinoa, brown rice, barley, bulgar, farro, popcorn

11. What is misleading about the labelling of whole grains?

Some products are labeled 'multigrain' this is not whole grain - should say 100% whole grain.

12. What are the four nutritional parts to nuts and what has research proven?

Phytosterol, magnesium, vitamin e, monounsaturated fat.

37% reduction in heart disease when 4 handfuls of nuts are eaten each week. Lots of research done on walnuts and almonds but this study was all nuts. (Am J Clin Nutr 2009;89)

13. Many people, who are losing weight, worry about the calorific content of nuts. What was the advice?

Nuts make you feel full, which in turn makes you eat far less, so fewer calories of the other foods helping you lose weight.

14. Why is nutrition not part of treatment for heart disease? What is the institute doing to help trainee cardiologists?

It is not recognised in the Accreditation requirement for doctors training to become cardiologists. He searched 'nutrition' in the 32 page documentary and the results were none found. The institution is helping the new doctors to become cardiology cooks with the idea that if they are a role model and use the nutrition in their own life's they will share the information more easily.

15. What was said about exercise?

'A little goes a long way' - a 30 minute walk a day cuts heart disease by 14%

Daily exercise in 3 x 10 minute sessions maintains physiological benefits more than 1x30 minute (MediSci Sports Exercise Aug 2012)

16. Are the mind and body connected? What research demonstrated this?

Yes, they are interrelated - like an ecosystem not separate. Studies show that thinking / positive emotions have an affect on heart disease.

Research: importance of social interaction and touch. 60% of fewer plaques in rabbits that were regularly petted (Science 1980; 208, 1475). The point it seems that social interaction has a positive affect on the subject. The value of human touch creates trust.

17. Does meditation help?

Yes. 201 patients who had CAD (coronary artery disease) randomised into 2 groups. Group 1 meditation / group 2 no meditation done over 5 years. 48% reduction in heart problems. (Circ Cardiovasc Qual Outcomes 2012;5;750). This is astounding no drug can do this. shouldn't this be part of treatment or even before such diseases occur.

18. What is 'biophilia'? And what research demonstrated a link?

Biophilia is to be around nature or natural environments.

the research was done on people recovering from surgery and the placement of their bed. 2 groups - group 1 'the wall group' next to the wall / group 2 'the tree group' next a window with a view of a tree. the tree group recovered quicker with less drugs/medicine. Statistics: wall group 2.48 / tree group 0.96 (Science 1984; 224;420)

19. Do breathing exercises work in reducing blood pressure?

Yes. Evidence from a research suggests that by slowing down breathing / focus on breathing 25 min over a week. Can reduce blood pressure by 15mmhg drop in Systolic BP. unlike some medicine there are no side effects.

20. Summary.

So much is missing from Cardiology at the moment. This organisation has been setup to inform communities, drive change, single minded on education - no product to sell but to expand the reach to the people, try to develop change in nutrition. these are not minor things but major and significant changes. Overall, saving lives.



## **Marketing in a recession – Dr Kennedy**

University of South Australia [ <http://www.youtube.com/watch?v=a6HCgnZUj-0> ]

From your notes try to answer some of these questions

1. What is Ehrenberg-bass?
2. Why does she refer to her research as 'old-fashioned Scientists'?
3. Are recessions a new phenomenon? Why/why not?
4. What are the 4 main key areas of the lecture? And the subsidiary points to each?
5. What is the good news about consumer behaviour?
6. What do you understand from the point on 'the nature of buying'?
7. What did the example of 'Mr Christmas' emphasise?
8. What is meant by 'stagflation'? How are Private labels affected in economic slumps and recoveries?
9. What are the 6 factors that cause reactions to price changes?
10. What does the term 'elasticity' mean?

11. What is the quote by Henry Ford?
12. What is 'share of voice'? What are the benchmarks for this?
13. How much should you spend on advertising?
14. What are the guidelines to follow in advertising? What's the 'key goal'?
15. What do you need to be careful of from 'cheap media deals'?
16. What do you understand from the 'advertising response curve'? What evidence is there for this?
17. What is the 'budget contract'?
18. What is the summary??
19. What does the slide on 'time for a commercial break' report? And what is the advice to this?
20. What are the main 'key actions'?
21. How do you get the most out of your budget?

Critical thinking: Do you agree with this lecture? Is she saying anything new? What is important and what was irrelevant? What would be your main focus if you were a business in a recession? Surely, some luxury good companies will go bankrupt? Anything else?

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## Marketing in a recession – **ANSWERS**

1) What is Ehrenberg-bass?

Institute for marketing science / blue chip companies invest for answers to questions such as about buying?? How brands compete? How marketing works?

2) Why does she refer to her research as 'old-fashioned Scientists'?

Research is done like the old research methods by looking at predictable patterns and its implications / reusable results / meaningful not just statistical

3) Are recessions a new phenomenon? Why/why not?

No, there is historical evidence (1903 - 2010) – we can learn from history

4) What are the 4 main key areas of the lecture? And the subsidiary points to each?

i.) **Consumer behaviour** - fundamental research area/ do premium brands suffer more in a recession? / which categories are most venerable? private label brands ii.) **Marketing Spend** - can you cut advertising spend? What happens if you maintain your spend? iii.) **Pricing** - can you lower your price? should you discount more? iv.) **New products** - is the recession a good time to launch? do low price introductions do well?

5) What is the good news about consumer behaviour? **Consumers are habitual**

6) What do you understand from the point on 'the nature of buying'?

**Brands have a distribution of heavy / medium / light buyers**

7) What did the example of 'Mr Christmas' emphasis?

Recession has an impact on spending BUT people still want these good and will make choices to give up/ stretch out/ postpone..

8) What is meant by 'stagflation'? How are Private labels affected in economic slumps and recoveries?

Stagflation is Recession and high inflation.

Counter cyclical - in a slump more people buy P.Ls and in a recovery people go back market brands but the P.L market share has grown.

9) What are the 6 factors that cause reactions to price changes?

i) increase price. ii) passing a reference price. iii) you are priced near average. iv) your brand is small and you increase. v) the price moves past that of the market leader. vi) the price is signaled.

10) What does the term 'elasticity' mean?

Short-term response/effect to a change. Price elasticity is negative - rise in price means sales go down.

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11) What is the quote by Henry Ford? " a man who stops advertising to save money is like a man who stops a clock to save time."

12) What is 'share of voice'? What are the benchmarks for this?

The total of advertising for your industry you have. share of voice and share of market = a pattern. BENCHMARK- if you have a high share of the market like 40% you can under spend in advertising. If a small share you overspend.

13) How much should you spend on advertising?

Need to understand your share of voice and share of market. If advertising elasticity is 0.10 = advertising budget should be 10% of gross profits.

14) What are the guidelines to follow in advertising? What's the 'key goal'?

i) Marketers are throwing away money ii) clearly branded and likeable advertising (look like you - use great creatives for story or brand) iii) reuse, recycle, repair - reinvest in campaigns that worked (saves money) iv) work with existing memory structures that enhance recognition and buying (builds confidence) v) Assess your media (when, where, how?) vi) Stretch out your communication/media over a year.

Key goal is 'Reach' - need to reach 100% of category users

15) What do you need to be careful of from 'cheap media deals'?

That they give reach not saturation

16) What do you understand from the 'advertising response curve'? What evidence is there for this? Better to advertise to different people rather than all the same people lots of time. You receive a better sales response. The evidence: the Absolute Gold Standard Measurement taken from single source data.

17) What is the 'budget contract'?

Do not ignore light buyers (40-50% sales) = greatest opportunity for growth.

18) The summary??

Follow business as usual / recessions don't change consumer behaviour as much as is thought / marketing activity does change

19) What does the slide on 'time for a commercial break' report? And what is the advice to this? GDP and advertising spend follow similar patterns but Advertising spend decreases more. The advice is go against the pattern and be consistent.

20) What are the main 'key actions'?

Lower growth targets/ maintain marketing support / keep up with competitors / increase retailer investment in private labels / DoP law provides, cannibalisation benchmarks as P.L grow - try to beat these. / Don't price promotion/ watch competitors / remember light customers / cheap media needs reach / remember the size of your business.

21) How do you get the most out of your budget?

Critically examine each piece of expenditure / review the metrics you use to do this / cut of you have to, especially if competitors are / don't compromise on quality / think twice before cutting price - what are your aims?

## **Land Use and Property Rights – Dr Wrago**

Yale University [ <http://www.youtube.com/watch?v=Q5VGZL3xqDI> ]

From your notes try to answer some of these questions

1. Outline?
2. What is the Fifth Amendment of the Constitution?
3. Why does he start by looking at 'Wyoming' – Greater Yellowstone Ecosystem?
4. What is the purpose of the slide on the Wolf Pack Territories?
5. Is the Grizzly Bear 'common property'?
6. Is the allocation of fishing rights governed?
7. What is the point on the Tsongas National Forest?
8. What is important about the California Coastal Commission case?

9. Why is the Point Reyes National Seahorse Park used as an example?
10. What is significant about the Mining Law of 1872?
11. Are Underlying mineral rights separable from the surface rights?
12. What's the problem with Methane Reserve Extraction?
13. What is the connection to the Horse Whisperer's Film?
14. How can the 'the law of Nuisance' be used in these circumstances?
15. What was the nuisance case of 1887?
16. What was famous about 'takings' for law history of Euclid v Ambler 1926?
17. Discuss the Penn Central Transportation Co. V. City of New York: 1978 case.

18. What is the point in the Hawaii Housing Authority v. Midkiff: 1984 case?

19. What did the Kelo v. City of New London 2005 case define?

20. What is 'valueless' in the Pennsylvania Coal Co V. Mahon 1922 case?

21. What case discusses 'blocked visual access' and what was 'the remedy'?

22. What was the Florida Case about?

23. Conclusion

**Critical thinking:** *What do you think of this lecture? Has anything surprised you? If so, what? What was missing from the lecture? How can National Park authorities / agencies be regulated so there is consistency in their policies? Should local people take the law into their own hands to regulate territories and boundaries? In what ways is Climate Change affecting property rights? And what could be the solutions? Should the underlying mineral rights be separable to surface rights? Are there any of the legal cases that you think the decision was wrong or could have been dealt with differently? Anything else?*



## Land Use and Property Rights.. **ANSWERS**

### 1. Outline?

To look at property rights and the 'taking' – when Governments have the rights to take private property for public purposes and under what circumstances compensation is required.

### 2. What is the Fifth Amendment of the Constitution?

Private property cannot be taken without compensation if it's going to be used for public purposes.

### 3. Why does he start by looking at 'Wyoming' – Greater Yellowstone Ecosystem?

To emphasise how property rights are fractured by Law but also by jurisdictional boundaries. This example shows the problems. The jurisdictional boundaries are really complicated – there are several national parks (Yellowstone, national forests, Grand Teton National Forest, National wildlife refuges, Native American reservations).

### 4. What is the purpose of the Wolf Pack Territories?

One species of wolf crosses all these different boundaries – a wide number of laws are at play that give implementation authority to different agencies (Forest Service, Bureau of Land Management, the National Park Service, the Fish and Wildlife Service, complimentary State agencies, private land owners, - mixture of private and public)  
There is a complexity – also the area is rich in natural gas and oil reserves, timber extraction, water resources, which create conflicts.  
Main Point – fundamental problem is all of these agencies have different policies on dealing with / managing the wolfs (or any resource) – one example is 'Fire' the Forest service suppress but the National Park let it burn. Inconsistency and content with these different agencies.

### 5. Is the Grizzly Bear 'common property'?

No – only common property in legal terms when protected in national park lands – but if it crosses boundaries into, for example, Alaska native American lands the bear would be appropriable (could be hunted / private property) – similar example for Fish.

### 6. Is the allocation of fishing rights governed?

No not necessarily. Example of Maine Coast Island – Lobster fishing and how is it regulated? Fishermen have little trust in Government policy and took the law into their own hands when a 'newcomer' tried trap lobster in their territory.

### 7. What is the point of the Tsongas National Forest?

Denuded of forest – national public domain – picture shows no generation of new life because area has been destroyed through the pressure that the Forest service gave out timber contracts without a sustainable timber policy in place. **Point:** mismanagement.

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8. What is important about the California Coastal Commission case?

The California Coastal act of 1976 Coastal commission – is unusual and important. Took an idea from the 'Adirondack Park Agency Act' the idea of Zoning – cluster development Strategies to manage coastal development – Government exercised right of 'Eminent domain' to take over land from Private sector to public (Point Reyes National Seashore, Cape Cod National Seashore, Fire Island National Seashore, Assateague Island, Padre Island in Texas). **Point:** is to look at these strategies to see what works in protecting resources, and how these strategies work with Climate change.

10. What is significant about the Mining Law of 1872?

All valuable minerals in and on lands belonging to the US are free and open to exploration and purchase by US citizens. However, this was amended by the Mining and Minerals Policy Act 1970 (DOI) – promote economic development on public lands. **Point:** is that there is conflict – people see the public lands as protected but the managers of the land see the land as economic development opportunities (mining, timber, grazing).

11. Are Underlying mineral rights separable from the surface rights?

Yes, many people don't understand this. Example -Methane reserves in Arizona. Those that own surface rights are not aware that the Federal Government sold off the underlying oil and gas rights.

12. What's the problem with Methane Reserve Extraction?

Scale 10,000 wells 5 years ago – Sheridan problem = ground water extraction is occurring at such a rate that it is changing the biological diversity of the region.

13. What is the connection to the horse whisperer's Film?

Coal bed Methane extraction – road being made on his property. Purchased the land rights, no right to stop them. The water pumped up changed his land, rivers – many of the farmers have been compromised.

14. How can the 'the law of Nuisance' be used in these circumstances?

An act, object, or practice that interferes with another's rights or interests by being offensive, annoying, dangerous, obstructive or unhealthful. Distinction between what is a public nuisance (collective interest) and a private nuisance (to take company to court – litigation) Extractor – would pay X amount of money. Legal agreements made before.

15. What was the nuisance case of 1887?

Mugler v. Kansas 1887 – if land use is considered to be a nuisance it may be regulated without compensation. Sale of Alcoholic beverage. Condition - Not all rights were removed

16. What was famous about takings law history of Euclid v Ambler 1926?

Supreme court decision – segregation of land use of residential and commercial districts complexity. Outcome was that State police power maybe used to classify and regulate land use.

17. Discuss the Penn Central Transportation Co. V. City of New York: 1978 case.

Grand Central Station – city of N.Y designation of the station as a historic landmark – prohibiting development above the station. Does this constitute to taking of property without compensation? Argument of ‘air’ rights? **Point:** Government won the case with designating the site as an historic landmark and owning the air rights.

18. What is the point in the Hawaii Housing Authority v. Midkiff: 1984 case?

1967 - 96% of state 72 landowners. Legislation approved use of eminent domain to condemn residential lots and sell land to existing tenants. To break up this oligopoly even if the landowners object. Compensated the landowners. **Point:** dramatic act of a state government and the use of eminent domain. Sup Ct ruled legitimate use of Eminent Domain BUT is not a taking – the public use is created. The key case is that it was in the interest for the public in the breakup of oligopoly.

19. What did the Kelo v. City of New London 2005 case define?

What is public use? Sup Ct found that the use of eminent domain for economic development did not violate the public use. If used as an economic project to create new jobs, increases taxes / revenues and revitalizes a depressed urban area – it qualifies.

20. What is the ‘valueless’ in the Pennsylvania Coal Co V. Mahon 1922 case?

‘Valueless’ – expectation that you had property lots to sell and the government pass a new law and dedicate your land to Green area. Shouldn’t that constitute to a taking? And compensate you for the loss. However, Sup Ct if you are left with a property right that has a remnant value. The 1922 case is about subsidence of homes from mining underground. This prohibition of mining had gone too far and constituted as a taking. Why? Because the underlying mineral rights become worthless.

21. What case discusses blocked visual access and what was the remedy?

Nolan V. California Coastal Commission – Nolan Leased property with option to buy conditioned with a bungalow – needed a permit from CCC. New Property would block the view – What would be the affect? Psychological / burden access remedy was to supply physical access to coastal area (Nolan argued the access condition as a taking - won the case as seen as a taking)

**Nexus argument – harm = Loss of visibility / remedy = access [no clear remedy]**

22. What was the Florida case about?

Property value susceptible to loss – storms and beach re-nourishment programme. Highly vulnerable areas to climate change and sea level rise. Stop the beach re-nourishment v. Florida Dept. of Env’tl Protection. Walton County shoreline. A boundary was set between private / public land. No right of access to your property. Landowners declared ‘Taking’ of their property right to own shoreline – they alleged that the Sup Ct violated the due process and takings clauses by suddenly unpredictably changing state substantive law that deprived these owners of their private property without compensation. Sup Ct ruled that

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beachfront owners had no rights to their property with continued contact to the water nor any vested right of the future breach accretion. Popular case supported by a coalition of 26 states

### 23. Conclusion

Among all these strategies that might be applied to protect public resources and against private damage to the environment, the use of regulation is extremely important opportunity for state and local governments. If you apply a strict standard, demand that taking of all property value be required prior to the grant of compensation, that offers the greatest opportunity for governments to be effective in pursuing environmental agendas.

## **The Secret Power of Time** – Prof Philip Zimbardo

RSA Lectures [ <https://www.youtube.com/watch?v=eJybVxUiY2U> ]

From your notes try to answer some of these questions

1. What are the two books he discusses in the intro?
2. What is the outline for today's lecture?
3. Why does he start with a picture of Adam & Eve by Lucas Cranach?
4. What was the main point of the 'marshmallow tests'?
5. How is the new book connected to this experiment?
6. What are the most important lessons for the curriculum?
7. What is the study of time perspectives? What is his argument?
8. Time perspectives are essential for what present and past constructs?
9. How does he describe the thoughts people have for past, present and future decisions?

10. What are the six main time zones?
11. What are the biases that affect the time perspective? What examples are used?
12. What is the correlation coefficient?
13. Describe some of the characteristics for all three time perspectives.
14. What was the experiment for Stanford students?
15. What was the experiment on smoke, take drugs and drink alcohol?
16. What are the positive and negative perspective foundations of emotion, motives and actions for Past TP, Present TP, Future T.P?
17. What is the optimal temporal mix and optimal profile?

18. Has ZTPI gone global?

19. What is the significant point about young males in the US dropping out of school?

20. What is important about the principles of life?

21. Why is the world in a terrible situation now?

22. Who is involved in conservation and sustainability?

23. How can time therapy help Post Traumatic Stress Disorder?

24. Summary

Critical thinking - *What did you think of the lecture? Do you agree with the ideas? What do you disagree with? Is the lecture a book promotion? Can it be so simple to classify people into these groups? Which group would you be? Could the study on young people be biased in that many young people don't develop future thinking until later in life? Is the research reach too small? Are some of his ideas generalizations? What ideas does he offer to help people become more time balanced? Is society in a present orientation? Can you change if you are religious? How can school systems be changed to cater for the digital generation? Anything else?*

## The Secret Power of Time... **ANSWERS**

1. What are the two books he discusses in the intro?

What makes good people turn evil. / What makes ordinary people become heroes.

Website- [www.heroicimagination.org](http://www.heroicimagination.org) to see the earth with everyday heroes.

2. What is the outline for today's lecture?

The secret power of time to influence your life decisions.

3. Why does he start with a picture of Adam & Eve by Lukus Cronic.

To emphasise that life is full of temptation - yielding, resisting, yes, no.

4. What was the main point of the 'marshmallow tests'?

Resisting temptation experiment by Walter Michel. Children (4 years old) were given a choice to eat a marshmallow now or wait on their own and have two. Some waited and some didn't. This simple test demonstrated different behavioral differences of do you resist temptation, do you delay gratification, do you give in makes a huge difference later in life.

14 years later - those that didn't wait classed as 'present orientation' are envious, jealous, moody, and indecisive. Those who waited are 'future orientated' scored 250+ higher in stats tests, cooperative, self-reliant, confident.

5. How is the new book connected to this experiment?

The Time Paradox - the new psychology of time that will change your life (with John Boyd).

He states that this book will show you how time plays a significant role in personal happiness, improving personal success, happiness and psychological wealth.

6. What are the most important lessons for the curriculum?

Learning to delay gratification, say no or later to temptation, teach children to be aware of future consequences of current actions.

7. What is the study of time perspectives? What is his argument?

It is the study of how individuals divide the flow of their personal experience into time zone / time categories done automatically and unconsciously. These frames vary between nations, cultures, people, social classes. **Point:** the argument is that some become 'bias'. You overuse some and underuse others rather than having a balance perspective.

8. Time perspectives are essential for what present and past constructs?

Achievement needs, casual thinking, hope, guilt (past), revenge (past), impulsivity (present), improvisation (present).

9. How does he describe the thoughts people have for past, present and future decisions?

Past- when was I in a situation like this in the past? What did I do? Did it work?

Present - biologically: what am I feeling? Socially: What are others doing? Physically: what does it taste like? Future - if I do it, what will I gain? What do I lose?

1. Past TP- focus on positives (birthdays, good old times, nostalgia)

2. Past TO. - focus on negatives (regrets, failures)

3. Present TP - hedonism pleasure, knowledge



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4. Present TP- fatalism (fated,)
  5. Future TP - life goal orientated (trust)
  6. Future transcendental life after death.

11. What are the biases that effect the time perspective? What examples are used?

Geography, climate, culture, religion, social class, educational level, political and economic stability. Models - family, friends, role models. Live closer to the equator - less change mainly present orientated. Protestants have higher GDP - their religion is 'work harder to succeed' are future orientated. Middle classes are future orientated, lower classes present or past orientated. Venice beach - hedonism, Japan generational conflict. La Liga in Italy - cut in Italy in half. People in north future, south past or present - poet says no future verb in Sicilian.

12. What is the correlation coefficient?

(R) is the degree of association between two measures  $+1.0$  to  $-1.0$ . Personality measures have  $r \sim +.30$  ZPIr

13. Describe the characteristics for all three time perspectives.

Tested 205 stds

**Future**- conscientious, preference for consistency, ego control, energy, impulse control. Not aggressive, depressed, sensation seeking (recent research says conscientious = 2 years longer life - don't take risks) "I'm able to resist temptation when there is work to be done"

**Past positive** - high for happy, self-esteem, friendliness / moderate for energy / not trait anxiety, depression, aggression.

**Present** "I do things impulsively, making decisions on the spur of the moment"

**Present hedonistic** - v. high novelty seeking, sensation seeking / high energy, aggression, how creative / no ego control, preference for consistency, impulse control, conscientious, emotion stability. (sex, drugs and rock & roll)

**Present fatalistic** - high aggression, trait anxiety, depression / not future consequences, ego control, self-esteem, conscientious, energy, emotional stability, how happy.

**Past negative** - v. high trait anxiety, depression, aggression, lie / not self-esteem, emotional stability, impulse control, how happy, energy

**Point:** on the surface all the students look the same but totally different individuals. Past negative and present fatalistic are the American high school shooters.

14. What was the experiment for stanford stds?

Does TP predict cognitive effectiveness in maze solving? Picked present orientated stds vrs future orientated students - present orientated begin / Future orientated look and when you begin you solve it/ if present orientated you begin and make mistakes. Bar chart shows 90% of F.O solved the maze / 60% P.O solved the maze. U.C Berkley - took F.O people and hypothesised them and made them P.O BUT data is still the same. Expanded present.

15. What was the experiment on smoke, take drugs and drink alcohol?

1200 college stds from Stanford and Cornell universities- Males and females - Alcohol use binge drinking, normal drinking and risky driving. Results - P.O males (50%) are more liable to drink and drive than F.O (-25%). Women are identical. Heroin addicts who are hospitalised against others who are in hospital for other problems. Heroin addicts are higher in P.H / P.F / lower on future and past.

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16. What are some of the positive and negative perspective foundations of emotion, motives and actions for Past TP, Present TP, Future T.P?

**Positives**

Past TP : happy, self-esteem, rituals, patriotism, nostalgia, gratitude, stability, wisdom, identity.

Present TP : affiliation, joy, pleasure, sensuality, sexuality, energy, activity, excitement, improvisation.

Future TP: achievement, health focus, contingency, planning, probability, thinking, self-efficacy, cost benefit analysis, expectation, hope.

**Negatives**

Past TP: trauma, guilt, depression, retaliation, revenge

Present TP: addiction, risky acts, violence, anger, gambler's luck.

Future TP: anxiety, worry, social isolation, competitiveness, male impotence.

17. What is the optimal temporal mix and optimal profile?

Past gives you roots - to connect to your identity and family - to be grounded. Future gives you wings - to soar to new destinations and challenges. Present gives you energy - to explore people, places, self and sensuality.

**Optimal profile P.P high / F moderately high / P.H moderate (selected)/ P.N low / P.F low.**

18. Has ZTPI gone global?

Yes, 24 translations, 30+ researchers (grad stds) collecting valid data, meetings in ICP Berlin and ECP Oslo, interact on EM weekly, gaining significant predicted results using ZTPI. Contact him - set up with research team. Amsterdam website [www.timeorientation.com](http://www.timeorientation.com)

19. What is the significant point about young males in the US dropping out of school?

A child drops out of school every 9 secs / worse for minority backgrounds and boys. A disaster recipe happening among boys in USA. By the age of 21 a boy has played 10,000 hours of video games alone. **Point 1:** a) haven't learnt social skills, b) live in a world they create - exciting. Game companies create 3D games = brains are being digitally rewired = never fit in a traditional classroom. Because it is analogue - no control for Std and is boring. **Point 2:** Going back to a more traditional curriculum will be a disaster.

20. What is important about the principles of life?

That many of the concepts taught are for future orientated people. Present orientated kids know the future consequences but the knowledge doesn't feedback to change your behaviour. **POINT** - that is the interesting thing about time perspectives.

21. Why is the world in a terrible situation now?

Because there were men who used to be future orientated who have changed to present orientated. He uses an example of bankers who used to invest money prudently and then got trapped in worldwide greed of high risk, high interest loan plus lying. The Leman brothers have just put a 90B\$ debt as an asset to continue trading.

22. Who is involved in conservation and sustainability?

Researchers have shown that it is Future orientated people. Who are concerned with the long term future. Present orientated people say "gee global warming it's nice I get more sunshine!"

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Example of FO is physical therapy 50% quit as they are not. By knowing if a person is PO doctors could put in place strategies to help like support networks, families, spouses, kids.

### 23. How can time therapy help Post Traumatic Stress Disorder?

All other therapy is time based - Freud 'archaeologist of the Souls (past focused therapy) / Skinner, Watson, CBT 'Reward and punishment' ( present therapy contingencies) / Humanistic 'actualising human potential' (future therapy) / Time therapy - 'realise the importance of time, creating balanced time perspectives'

Doesn't get cured with conventional therapy. Time therapy is practiced by Dr Sword in Hawaii.

Respect the trauma but a new choice from PN and PF. PN to future and PF to PH.

27 PTSD and in only 8 visits amazing results / all changed significant. 24 patients 87% less depression, 19 patients 70 % less anxiety, 14 patients 52% fewer PTSD symptoms.

### 24. Summary

Time is the most important thing in the world. - Time is what matters. US Today study asked Americans how busy they were? +50% said I'm busier now than I was last year and I sacrificed friends, family and sleep for my success. Let's suppose you had an 8-day week what would you do? Working harder not with friends and family! 60% families had regular sit down meals together 10 years ago. Last year 1:5 US families have sit down meals together. **Point:** No family values. Many of life's puzzles can be solved by understanding our own time perspectives and that of others. The conflict we have with others is really a conflict of different time perspectives. Once you are aware of this you don't make negative attributions. The most simple idea in the world. Ideas that are powerful are simple and understandable. Think time, think balanced time, use time wisely and well.

**Ageing world, ageing mind**— Prof Ian Deary  
Edinburgh University [ <http://www.youtube.com/watch?v=DkCFXdt7Fhc> ]

From your notes try to answer some of these questions

1. What is the outline of the lecture?
2. What was the point in the cognitive test?
3. What is the projected mean age of the human population for 2100?
4. How much has life expectancy changed since 1850?
5. What is the probability of dying before your next birthday?
6. What age have you got an average of 5 more years?
7. What is significant about the Europe pyramid graphs?
8. What is the dependency ratio?
9. What is the projection of age composition in the UK population?

10. What are the chances of surviving to age 100?
11. What is interesting about life expectancy in the years 2004-06 / 2008-10?
12. What does all this 'ageing world' mean?
13. What is the challenge of dementia and cognitive decline?
14. What is important about the ageing body and the ageing mind?
15. Why is he interested in normal cognitive ageing?
16. What are the cognitive tests?
17. What is Scotland's unique contribution to cognitive research?

18. What do they do with the people from the Scottish Mental surveys?

19. What was the study called and what was its correlation?

20. How do you have good cognition in old age?

21. Summary

Critical thinking? *What did you think of the lecture? Do you agree? What parts don't you agree with? Do you want to live to a hundred? What kind of concerns does an ageing population place on society? Why would Chelsea and Kensington be the places with the highest life expectancy? Do you know anyone who has dementia / Alzheimer's? What do you think about the research? Is anything missing? Do you agree that physical fitness is a key aspect? Could lower IQ at a young age result in smoking and drinking more? Do people who have higher scores get better jobs, have better lifestyles and are intellectually engaged? Anything else?*

## Ageing world, ageing mind.. **ANSWERS**

1. What is the aims/ outline of the lecture?

Change in populations' structure: world, UK, Scotland / the global challenge of dementia and cognitive decline / age-related physical and cognitive changes / Scotland's unique contribution to cognitive ageing research.

2. What was the point in the cognitive test?

7 / 6 / 9 add more numbers - 16 / 17 / 18. A process of checking mental ability. A slide to remember that appears later – put hand up.

3. What is the projected mean age of the human population for 2100?

Year 2000 mean age is 30 / 2100 mean age is 45. The whole world will age by an average of 15 years. (Academy of Medical Science, 2009)

4. How much has life expectancy changed since 1850?

Life expectancy of the best country in the world in 1850 was 45. Now (2005) is 85. At the top is Japan. Many demographers predict the line will tail off **BUT** it hasn't yet! People keep living longer.

5. What is the probability of dying before your next birthday?

1950 an 80 yr old woman dying was 10% by 2000 it was 5%. A woman aged 90 was 25% now 15%. (Christensen, 2009. Lancet).

6. What age have you got an average of 5 more years?

1861 to 1950 not much difference but now 10 more years from 67 to 77 (Vaupal, 2010)

7. What is significant about the Europe pyramid graphs?

More widespread population. Age 40 in 2008 relatively clear that the majority of population is in the Middle Ages by 2060 the proportion will be more widespread. Example; population pyramid for Germany from 1952, 2006, 2050.

8. What is the dependency ratio?

Ratio of people in assent / over 65 UK 22% to 42% / over 80 7% to 15% (European Commission, 2009)

9. What is the projection of age composition in the UK population?

In 2001 9.4m 65+ / 2071 21.3m 65+ (Academy of Medical Sciences, 2009)

10. What are the chances of surviving to age 100?

Office for national statistics 2012 1 / 3 of babies born in 2012 will survive over 100 / more than 95,000 people aged 65 in 2012 are expected to celebrate their 100th birthday in 2047  
2012 = 14,500 to 2036 = 110,000. Centenarians in the UK 1960 <1000, 1980 2500, 2010 12,640. Females out number males 9,000 to 2,000. 2035 110,000, 2060 460,000.

11. What is interesting about life expectancy 2004-06 / 2008-10?

The highest: Chelsea and Kensington. Lowest: Glasgow. Not every area is living longer.

12. What does all this 'ageing population' mean?

Current situation - disability starts at 65 by 75 most people have a disability. Nightmare scenario - a huge majority get the disability at 65. Approaching asymptote scenario is it starts later in the 80s.

13. What is the challenge of dementia and cognitive decline?

The big problem. Single most feared aspect of growing old (Martin 2004, nature). The main threat to enjoying activities (USA National Research Council). 1) Normal cognitive ageing. 2) Mild cognitive impairment: memory complaints, impaired memory function for age and education, preserved general cognitive function, intact activities of daily living, not demented, but increased risk. 3) Dementia: Alzheimer's, vascular, mixed, etc..

**Dementia is increasing:** NAT report 2007 - Dementia age 65-69 is just a few percent, by 90 1/3 of people. 3/4 of a million people in the UK with Dementia - most common Alzheimer's.

2005 - 2051 will double 85-95. The cost of care is £17b.

14. What is important about the ageing body and the ageing mind?

Simplistic graph young to old (diagonal line). Sarcopenia muscle mass graph goes down. Grip strength (the dynamometer), lung strength drops, bladder compliance, the brain - water goes up, grey matter (think) goes down, white matter (connectors) increase and drops, lateral prefrontal cortex (organise thinking) drops, primary visual cortex (see) stays the same, Hippocampus (making memories). **Point:** the mind ages at different stages / rates.

15. Why is he interested in normal cognitive ageing?

Normal cognitive ageing - why study? Growing numbers/ proportions of older people, cognitive decline related to increased risk of dementia and death, increased risk of losing independence, lower quality of life. **Point:** to find which cognitive functions change with age, to find out why some people have more successful cognitive ageing than others, find interventions to ameliorate & prevent cognitive decline.

16. What are the cognitive tests?

Cognitive domains - vocabulary / memory tests / reasoning (sequences) / spatial visualisation / processing speed test / discusses crystallized warehouse (grow), Fluid ability (hurts your head) (falls)

Real test Vocabulary intelligence (Salthouse, 2004) generally improves with age (50-70)

Reasoning falls / spatial visualisation falls in 60s / episodic memory falls / Perceptual speed - mid 20s starts to decline.

Hedden & Gabrieli 2003 (Nature reviews Neuroscience): good numerical ability, verbal ability / down inductive reasoning, spatial orientation, perception speed, verbal memory.

Not everyone ages at the same time. Psychology and Ageing 2002 'individual differences in rates of change in cognitive abilities of older persons' Wilson, Beckett, Barnes, Schneider, Bach, Evans, Bennett. 100 people in religious orders, 21 tests each year for 17 years.

**Point:** shows that some people improve in age, some have better results. Not a straight line.

Depends who you are!

**Interesting point:** Salthouse, 2012 - US population / best reasoners 25-35 / where are the best CEOs in the Fortune 500 companies all between 45-65 - no overlap.

17. What is Scotland's unique contribution to cognitive research?

It is the only place in the world where mental tests (The Scottish Mental survey) were done on young people in 1932 (the intelligence of Scottish children) / 1947 (the trend of Scottish



intelligence). **Point:** using the Moray House test 87,800 children tested - 70,805 children tested - good way to study cognitive ageing. (LBC 1921) Age 11 in 1932=79 in 2000. 550 used in the study at (79,83, 87, 90). (LBC 1936) Age 1947 in 2006= 70, 73,76.

18. What do they do with the people from the Scottish Mental surveys?

Find their scores from when 11. See for 2 days medical and cognitive testing, blood letting and then a brain scan. Specifically, a gene chip 610,000 genetic tests, sensory testing, physical testing, anthropometry (measure the body), taking photos of the backs of the eyes to look for patterns in blood vessels, nine bottles of blood, long questionnaire that includes diet, well-being, personality, social background, family background, education.

19. What was the study called and what was its correlation?

'The stability of individual differences in mental ability from childhood to old age: follow up of the 1932 Scottish Mental Survey' LBC 1921 - correlation age 11 -(.66)- 79 -(.70)- 87 (overall.51). LBC 1936 - correlation age 11 -(.67)- 70 .66 correlation means that people who did well at 11 are still doing well now / modest then , modest now, average then, average then. **Point:** the people who scored modestly at 11 then does well at age 80 is most interesting. **How have they achieved this?**

20. How do you have good cognition in old age?

1) Have good cognition at age 11. 2) What else? Predicts - health / genes/ biology / lifestyle / demographics. Specifically, diet questionnaire alcohol, activities/engagement, and physical fitness. **Is there a healthy mind to a healthy mind?** Yes (.17 linear regression). More research Gow, 2012 'neuroprotective lifestyles and the ageing brain' shows being more active have better thinking skills - physically active. Intellectual engagement - reverse causation (**interesting point:** does look important but bright children are cognitive engaged, and it doesn't affect cognition if done later) more exercise helps the brain. Alcohol and cognitive ageing - fluid cognition - drinking more alcohol helps thinking but add scores from age 11. It looks it is good - reverse causation. Smoking - lower ability take it up/ can't give it up.

Biology - inflammation C-reactive protein - lower thinking skills.

Brain scanning - white matter scars - working less well. Better white matter - faster cognitive ability = true. **Point:** keeping white matter healthy by keeping cardiovascular system healthy.

Genetics APOE e4- gene chromosome 19 / some people have it some don't if you have APOE e4+ you are slightly more likely to get Alzheimer's. This gene difference is not different at age 11 but at age 79 it has. Why? Possibly bad servicing / needs more research.

21. Summary

Revision causation. - Cognitive reserve. Did people who have a lower IQ have a greater possibility to get vascular Alzheimer's later in life? No. But those who did well at 11 have a slightly better chance not to get Alzheimer's. Mean scores for 100 LBC1921 11:49, 79:63, 87:58, 90:52, how satisfied are you? 90 agree they are happy.