

Flow

Complete absorption in what you are doing

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Mihály Csikszentmihályi (1934-)

His (PosPsy) basic question was:

(not: "When are people unhappiest?" but ...)

"When do people experience most happiness / satisfaction with life; and what characterises these times?"

He used two methods:

- Random time sampling
- Interviews



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Mihály Csikszentmihályi (1934-)

1975 Investigation (from "Beyond boredom and anxiety: Flow") had Csikszentmihályi interview people from different professions.

And see how they felt, acted and thought throughout their work day.

Interestingly, They experienced very similar effects at the most engaging part of their job.



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What is "Flow"?

Csikszentmihályi, M. (1990) Flow: the psychology of optimal experience (New York: Harper & Row)

[Hereafter Mihály Csikszentmihályi (who is Hungarian) will be referred to on my slides as "MC"]

An attempt to describe the mental state which humans most value. Being fully absorbed in an activity.

"Flow" is a metaphor from an interview participant. "Autotelic experience" is a technical term meaning roughly "intrinsically motivated".

First study interviewed sculptors immersed in sculpting.

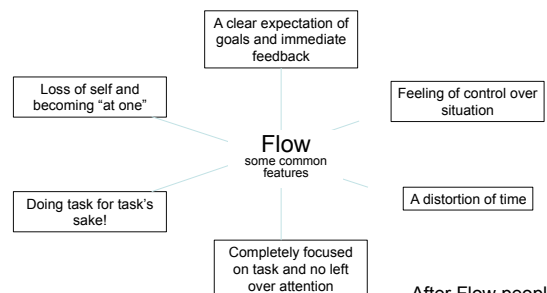
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Flow

a state of consciousness where attention is undivided and motivates action to fulfil the goal of expressing self. This means being fully immersed in the task at hand.

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After Flow people feel a new sense of meaning and feel strengthened.

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Microflow Activities

- Social: unnecessary talking and joking with other people, browsing shops, visiting galleries, sexual activity.
- Kinesthetic: involves all those activities that involve primarily body movements e.g. touching, fiddling with objects, walking, pacing, running and any games or physical activities engaged in alone.
- Imagining: daydreaming, humming, singing, playing music in one's head.
- Attending: all the passive forms of spectatorship such as reading a book, watching people walk down the street, watching television.
- Creative and oral areas were also identified.

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Csikszentmihalyi, M. (2000) *Beyond boredom and anxiety*. Jossey-Bass.

(In connection with: what is positive psychology?)

By the end of this course, you should be able to summarise your own brief view on what PosPsy is; and on the relationship of:

- Pleasure. Direct sensation
- Joy. The emotion of self-efficacy, following plan success.
- Happiness. Plus "values" or "meaning".
- Well-being. ??

MC's flow among other things definitely concerns the engagement of a person's highest values, and so meaningfulness (to them) of the activity.

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My personal analysis of flow

What follows is not what's published, but my own thinking.

I would define flow as the state (w.r.t. a task) of always being confident about what to do next: never being stumped for a suggestion, nor worried about having to choose between several and avoid the bad ones.

Flow is close to play:

You know what you will do next, you are interested in what happens but don't know what it will be and do want to find out.

There are several aspects to flow:

1. One is the balance between having too many vs. too few possibilities for your next action. [Burden of Choice]
2. Another is the balance between the activity requiring too many vs. too few mental resources/effort.
3. Another is how important the activity is to the person's values.

The burden of choice (1-slide version): too many / too few alternatives.

Barry Schwartz argues, on the basis of some empirical work, that people enjoy choice more with only a few alternatives. More choice is NOT generally good.

Schwartz et al. (2002) "Maximizing Versus Satisficing" J.Pers and Soc Psy 83 (5) 1178-1197

(See the wiki on this from the 2009-10 course.)

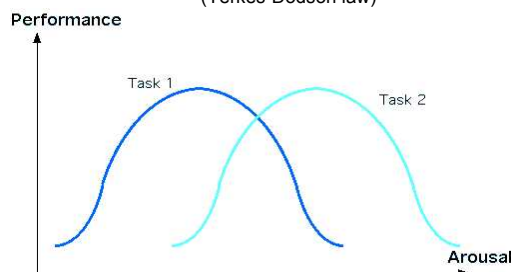
Certainly, although making a choice makes us feel in control (self-efficacy), it is mental work. And also, it tends to make us **more** worried about whether we made the right choice.

Two types of strategy: Maximisers, Satisficers.

Flow however seems to correspond to having no doubts about the one choice to make.

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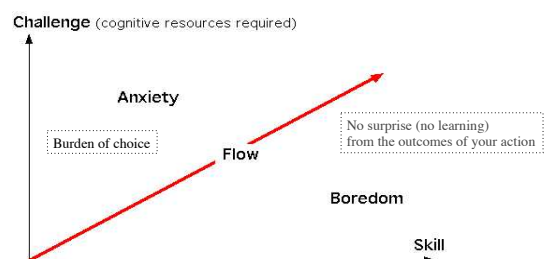
Performance & Arousal (Yerkes-Dodson law)



1. For fixed task, and attainment, what arousal is optimal?
2. For a given arousal level, what task matches?

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Skill & Challenge



For fixed task, and attainment level, and arousal level.

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Flow: 'Passive' vs. 'Active'

Passive

Little effort required
e.g. Watching TV

Active

More effort required
e.g. Sport, reading, painting

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Three of four types of flow

U-flow [unconscious] Body engrossed (fully occupied)
You walk to work, using your eyes, but thinking of other things.

C-flow [conscious] Body and mind engrossed.
Your consciousness is fully focussed on the activity.

MC-flow [plus values, optimal] Body & mind & "values" engrossed;
and have no more valuable aim in life.

Meta-flow When your learning, but not your doing, flows effortlessly.
As when you look round a corner, you don't resent the physical effort,
but enjoy making sure you are not missing any information.

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Human-Machine Interface design

Designing computer games, or computer-human interfaces: flow is a good description of the criterion of good design.

However, the aim is u-flow for the controls, allowing c-flow for the work itself. I.e. you do want full engagement; but for the engagement not to be about how to make the machine work, but about the writing or drawing or accountancy or human communication that is the purpose of using the machine in the first place: "transparency" of the machine. "Direct manipulation"

We know some of the features that are required:

- Instant perceptible feedback on every action
- Undo (so you don't have to plan ahead and worry)

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Organisation of human action

Surprisingly, in many many cases, humans do NOT adopt fixed action sequences for highly practised tasks. They use perception-action rules, and practised activity is typically flow-like.

The notion of flow thus also describes something about much well-learned behaviour.

This is consistent with some psychology theories (Anderson's ACT-R and ACT-* theories).

But equally shows we do NOT learn many things we are nevertheless repeatedly exposed to and indeed engaged with: we just re-perceive, re-decide each time.

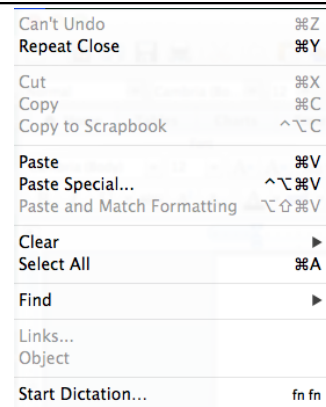
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Exercise

1. Draw, without peeking at your neighbour's attempts, a sketch of the Boyd Orr building as you approach it from the QM side.

2. Picture to yourself the "Edit" menu in WORD. List the commands on that menu in order.

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Emotion, consciousness, awareness

Flow states are valued, sought after, but are states of no emotion (at least in the sense that you are not thinking "I'm having a great time" but are immersed in the task until you pause).

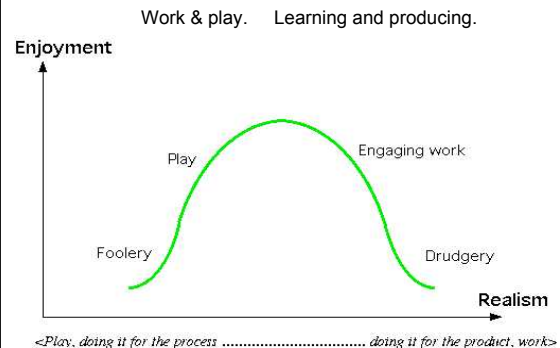
The person is conscious of the task, but oblivious of everything else: so it is a state of low awareness in most senses, but high momentary awareness of the task.

It is a state of zero reflection; or rather:
In flow, you aren't reflecting on the problem of how to do the task. But reflection itself (on past events) may be the task.

It is a state of no pre-planning, just going with the flow.

It is probably true that there is always significant learning going on in flow; but that other important kinds of learning can be done without it.

Dewey: Realism & enjoyment.



"Realism": play vs. useful physical work

In the previous diagram of Dewey's concept, flow probably corresponds to the mid-point on the "realism" axis (play — work; silliness — realism); but the high point of enjoyment.

But for MC flow (if not for other kinds of flow), flow is not only intensely enjoyable but is also intensely serious and valued.

So: there are two distinct human values emerging here, both of which may support flow: "work" and "play".
I suggest that work corresponds to producing material effects of value; and play produces informative (knowledge, learning) effects.

Thus the graph may even imply that optimal experiences manage to fulfill both values in one activity.

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Learning vs. doing as the goal of an action

Dewey's "realism" is about play vs. work (adult-valued activity).
But a fuller view of this dimension is the contrast between:
Acting-to-learn-by-seeing-what-happens vs. Acting-to-be-productive-in-the-world
Or: Learning vs. Doing or producing.

(These are individual values, and the diagram shows Dewey's awareness that both are separately valued by school pupils; but the word "work" indicates that he was thinking of social not individual values, and so of physical work valued by adults (and children) rather than of either research or individual learning as of value.)

This duality of learning and producing is very general; all human actions in fact produce both as effects, but usually we do an action to achieve just one or the other. I.e. in most cases, one is the intended effect and the other an incidental side-effect.

Flow may often occur when either one or the other is personally valued and fulfilled in the activity; but perhaps optimal experience involves both simultaneously.

Certainly creative artists seem to be both learning (finding novel effects) and producing a "work" that others value.

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Fun

A side-issue, or related topic, is what to make of the concept of "fun". (Of course, just because we use the word and the idea frequently does not necessarily mean it is a serious concept with any definable academic meaning.)

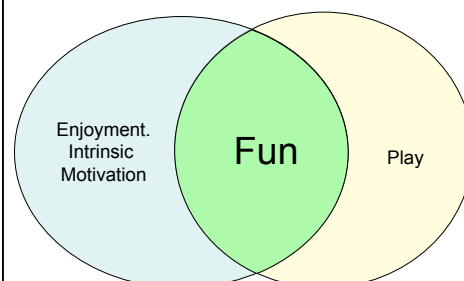
Fun is clearly related to play; which in turn is related to learning.
I have a rough paper on the concept (link from the course web page).

Fun = enjoyable play:

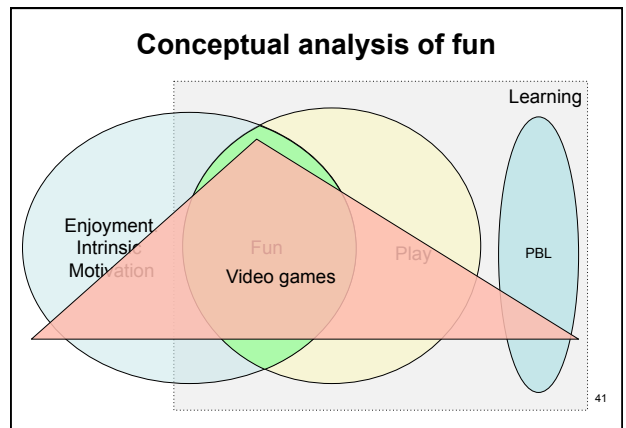
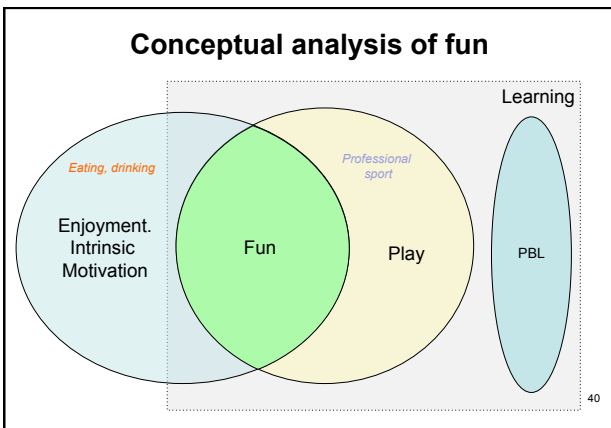
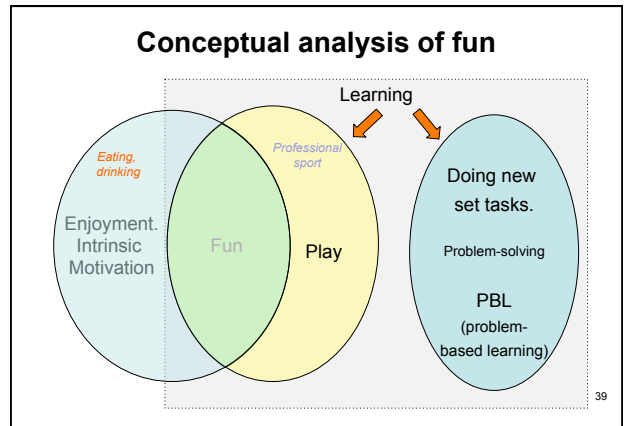
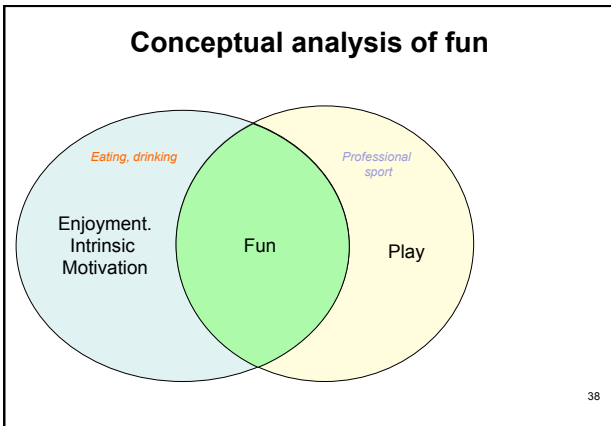
- o Enjoyable = to satisfy some intrinsic motivation (although fun can have "work" motivations in addition).
 - o Play = an activity which is both:
 - > a) Defined by a process rather than a goal (a pre-defined outcome).
 - > b) Undertaken to discover what the outcome will be.
- Play always results in learning (but is often undertaken for other purposes).
Learning, in contrast, often does not involve play.
- o Computer games: Enjoyment is the main aim of computer games; but fun is only one kind of enjoyment, so game design may use other kinds as well.

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Conceptual analysis of fun



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Video Games

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- ### Video games
- 32% of all adults (34% of men, 31% of women) in the UK describe themselves as 'gamers' (Interactive Software Federation of Europe)
 - One child in two plays games every day (ISFE, 2010)
 - 2011's *Call of Duty: Modern Warfare 3* out-grossed the last four *Harry Potter* films combined (GFK Chart-Track, 2011)
 - The average age of a gamer is estimated to be somewhere in the mid-thirties, with the Entertainment Software Association placing the current figure at 37.
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Video games consist of learning tasks

- Best-designed games typically comprise a series of **coinciding or intersecting goals**, with **short-, medium- and long-term conclusions**
- This arrangement of goals, which **permits the student player to progress on a number of fronts** – even when one goal is seemingly out of reach – has some significant advantages for **student engagement**
- More difficult to implement in a structured, often didactic, educational environment such as a school or university?

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"Meta-flow"

A different kind of flow is the type that may be experienced when learning, not doing (or scoring) is the real goal.

When you are trying to get a job done, maximise your score, then impasses drop you out of flow, make you frustrated.

But when the real goal is puzzle solving, then flow is at one higher level: you may frequently be halted in the task, but always know an action that will get you some relevant information to move you on.

I call this "meta-flow"; and it seems a relevant concept because when people want to learn then they don't get frustrated because no-one just tells them the answer. On the contrary

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My analysis of VideoGames

Their appeal has an overall driving motive of intrinsic love of discovering (learning) the rules for their own sake.

The chief learning method is play (trying things out); but may involve other learning methods at times.

There may be additional rewards sometimes, both intrinsic and extrinsic e.g. playing for money, or fame (the latter is a social satisfaction); the visual pleasures so many games spend lavishly on creating.

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Summary of (possible) dimensions underlying flow

The phenomena connected to flow concern more than the 2 dimensions that fit conveniently into one simple diagram.

I've mentioned these dimensions in earlier graphs:

1. Enjoyment. In many diagrams this is the invisible 3rd dimension
2. Skills (of the person w.r.t. the challenge or task)
3. Arousal level
4. Challenge / difficulty (for the person at that stage of learning)
5. Realism: utility in the practical world e.g. aircraft simulations
6. Meaning / value (of the task or activity to the person)

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The dimensions underlying flow 1

Reorganising into an outline argument the dimensions brought up so far, the basic points seem to be:

- A. It looks as if the greatest enjoyment is where learning and doing are both equally the aim: 2 not 1 sources of value.
The peak of flow is where skill and "challenge" are balanced, and double meaningfulness is possible (both learning and accomplishment in one activity).
- B. Challenge is a function of:
1. The inherent difficulty of the task (golf handicap; "levels" in Vgames)
 2. The skill of the person relative to (1)
 3. The person's arousal level, and its degree of match to (1,2).

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The dimensions underlying flow 2

C. Challenge vs. skill has a saddleback or ridge shape: enjoyment and flow peak where challenge and skill meet and balance.

D. When challenge and skill balance, then flow; but it may be u-flow not MC-flow.

E. You get MC-flow when values (meaningfulness) are also at a peak, including:

- 1) Value to the person from learning
- 2) Value to the person from doing (from the product)
- 3) Value to others: social value.

F. Dewey's "realism" refers in part to how well linked the task is to the real as opposed the simulated world. If it is, then (2, 3) are likely to be higher. For example, if the "game" is a simulation of flying an aircraft vs. of an alien world.

A note on consciousness and psychology

Today it is rare for "consciousness" to play a central role in theory. However it did / does in:

- Freud
- Soviet Activity Theory [Leontev; a disciple of Vygotsky's]
- Flow.

All self-report depends upon what we have conscious access to, but researchers are generally alert to this issue, and the tension between our behaviour and what we say about it e.g. in IAT and issues of when our self-reported attitudes are consistent with our implicit attitudes.

In practice, although not much discussed, there may be 3 categories:

- What we always can be aware of
- What we can never be aware of introspectively
- And the large amount of detail we are momentarily aware of but forget forever if we aren't asked to speak about it immediately.

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The burden of choice (6-slide version)

Schwartz B, Ward A, Monterosso J, Lyubomirsky S, White K, and Lehman, D.R. (2002)

"Maximizing Versus Satisficing: Happiness Is a Matter of Choice"
Journal of Personality and Social Psychology
Vol.83 No.5 pp.1178–1197

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The burden of choice 1

Claim 1: Having more choice can make people less happy

When purchasing exotic jams or chocolates, both purchase and post-purchase satisfaction is more likely with 6 choices than with 24. Iyengar & Lepper 1999, 2000

Same is true of students with 6 rather than 30 essay titles to choose from.

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The burden of choice 2

Claim 2: There are two types of decision procedure anyone might use (but there are individual differences in which one s/he most often uses)

- a) Maximiser: work on the choice until you are sure you have identified and selected the optimal choice
- b) "Satisficer": have an internal threshold of "good enough" for the decision and pick any choice (e.g. the first) that meets it.

The more a person is a maximiser (seen as a trait), the more likely they are to suffer regret, upward social comparison, be dissatisfied with consumer decisions. (Schwartz et al. 2002)

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Why is this a problem (1)

The other problem (than boredom) when you don't have flow is too much choice, and you don't know how to make it.

Flow is the sweet spot line between

- a) having no choice and being stuck (zero options you can see), and
- b) having to choose without knowing which is best (more than one option AND no reliable decision procedure).

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Why is this a problem? (2)

Making a decision costs significant time and effort.

If we try to maximise (make the optimum choice) but there are a lot of alternatives, this is a lot of work; requires a lot of information; and we may not be able to get the information.

And so we may not have confidence we were able to pick the best and so remain dissatisfied with our task of deciding.

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Remedy 1

Make the decision carefully, then use it again and again.
(Brand loyalty)

Many people like to make a choice once and stick to it (a favourite brand, partner, degree subject, holiday destination, ...).

This saves major mental work, but puts even more stress on getting the original decision right; and is depressing when the favourite is withdrawn from the market thus destroying the intellectual (and affection) capital invested.

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Remedy 2

Satisfice, don't maximise

Abandon getting it right, just get it good enough

Remedy 3: realise that satisficing is best (!)

It saves mental effort. If you added in the cost of the decision time, that would change the one you picked.

Choosing costs mental effort. (Supermarkets make you pay for this.)

You usually don't know enough to optimise exactly anyway: satisficing is realistic about the value attainable from trying to optimise.

You make and live with many other irreversible decisions anyway; we are where we are; There is something irrational in continuing to be unhappy about a decision that's taken.

Learn more about the real criteria; and the real options.

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Homework for next time

Individually do the Strengths questionnaire, and come with a note on what it says your own strengths are.

<http://www.viacharacter.org/www/> VIA website

Homework:

1. Type up a note on what you took from the wiki critiquing and post it in your group's forum
2. Do the Strengths questionnaire.
3. Progress your group's wiki work (as on the groupwork handouts)

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A place to stop

<http://www.psy.gla.ac.uk/~steve/courses/posl4.html>

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