

# Creating the Productive Workplace: A Psychological Perspective

**Nigel Oseland** PhD CPsychol



[oseland@workplaceunlimited.com](mailto:oseland@workplaceunlimited.com)



[@oseland](https://twitter.com/oseland)

## Input

Time/effort  
Staff/equipment cost

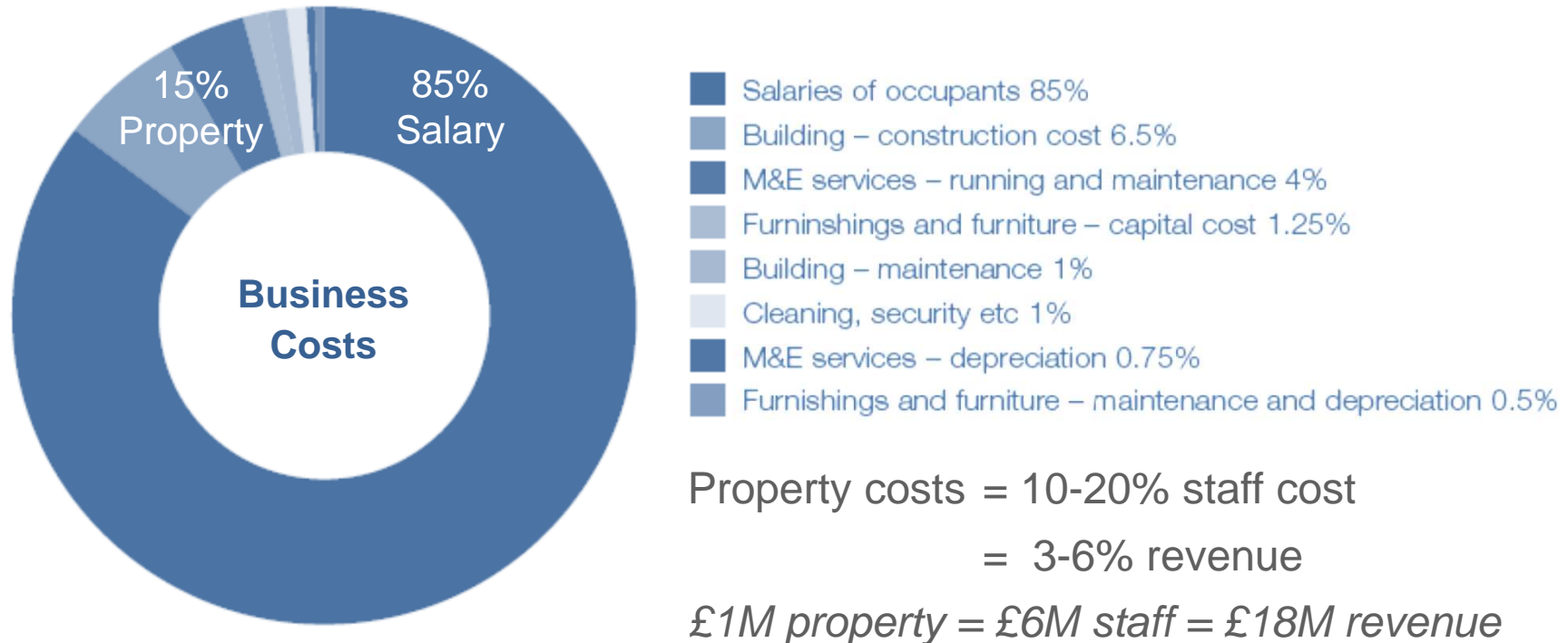
“Ratio of output to input”

## Output

Quantity/quality  
Product/service/idea

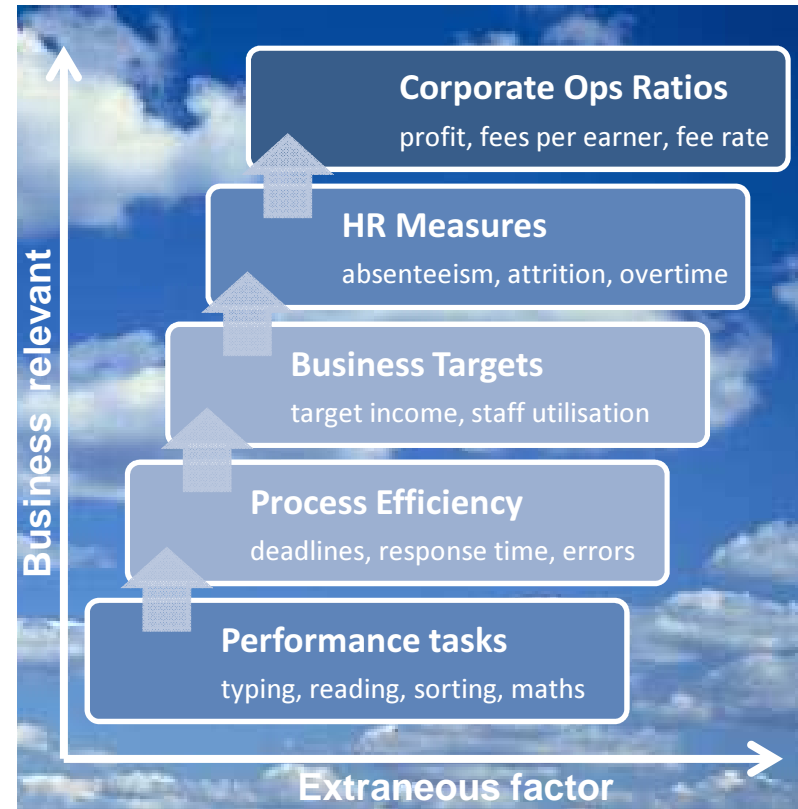


Source: CIBSE (1999) *TM24 Environmental Factors Affecting Officer Worker Performance: A Review of Evidence..*



Source: CABE (2005) *The Impact of Office Design on Business Performance*,.

- ASHRAE, NEMA and CIBSE documented numerous productivity metrics
- Specific business metrics but costly, timely and difficult:
  - use satisfaction as a proxy
- Extraneous factors affect accuracy and relevance of metric:
  - market and marketing
  - organisational factors



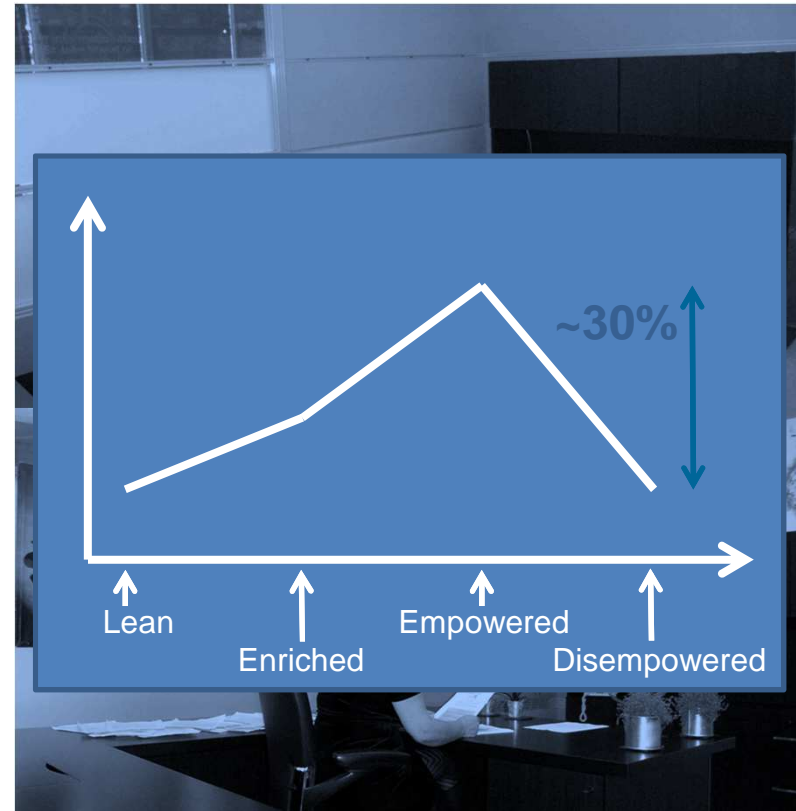
- AWE funded research:
  - Oseland & Burton June 2012
- Literature review & meta-analysis
- Weighted by:
  - Research environment
  - Performance metric
  - Time in activity



Oseland & Burton (2012) *Journal of Building Survey, Appraisal & Valuation*, 1(2)

- Exeter University research:
  - Knight & Haslam (2010)
- Lean, enriched, empowered and disempowered offices
- Sorting task, letter identification, vigilance task, questionnaire
- Office simulation, objective metrics, office related tasks
- Empowered most positive results

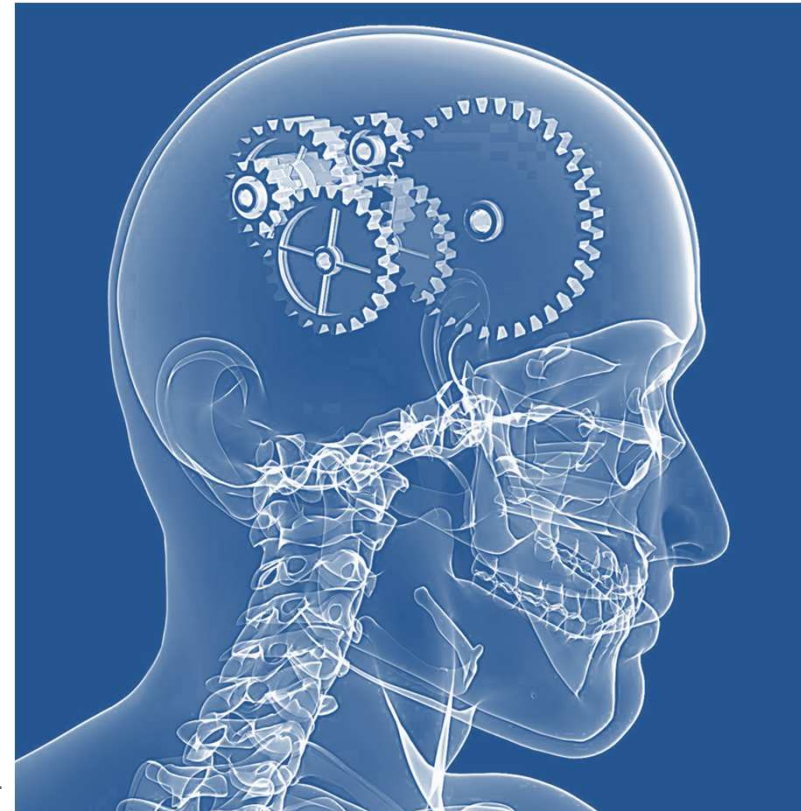
Knight & Haslam (2010) *Journal of Experimental Psychology*, 16 (2), 158-172



## Predicting productivity

Factor	Count	Unweighted Mean	Weighted Effect		
			Mean	Lower Quartile	Upper Quartile
Lighting (L)	17	9.5	1.1	0.1	2.0
Noise (N)	10	27.8	1.4	0.2	1.7
Temperature (T)	16	17.0	1.2	0.0	1.9
Ventilation (V)	16	9.0	1.4	0.2	1.7
Control (F)	10	8.0	1.2	0.3	2.1
Furniture (F)	8	15.7	2.1	1.0	2.1
Space (S)	3	24.1	3.5	1.7	4.4
<b>Mean</b>	<b>80</b>	<b>15.9</b>	<b>1.7</b>	<b>0.1</b>	<b>2.0</b>
<b><i>Multiple/general</i></b>	<b><i>22</i></b>	<b><i>16.7</i></b>	<b><i>2.7</i></b>	<b><i>1.2</i></b>	<b><i>3.2</i></b>

- Psychology – the study of mental processes and human behaviour
- Environmental psychology – the interrelationship between people and their environment
- Evolutionary psychology – how innate human behaviour and psychological processes have evolved for survival and wellbeing

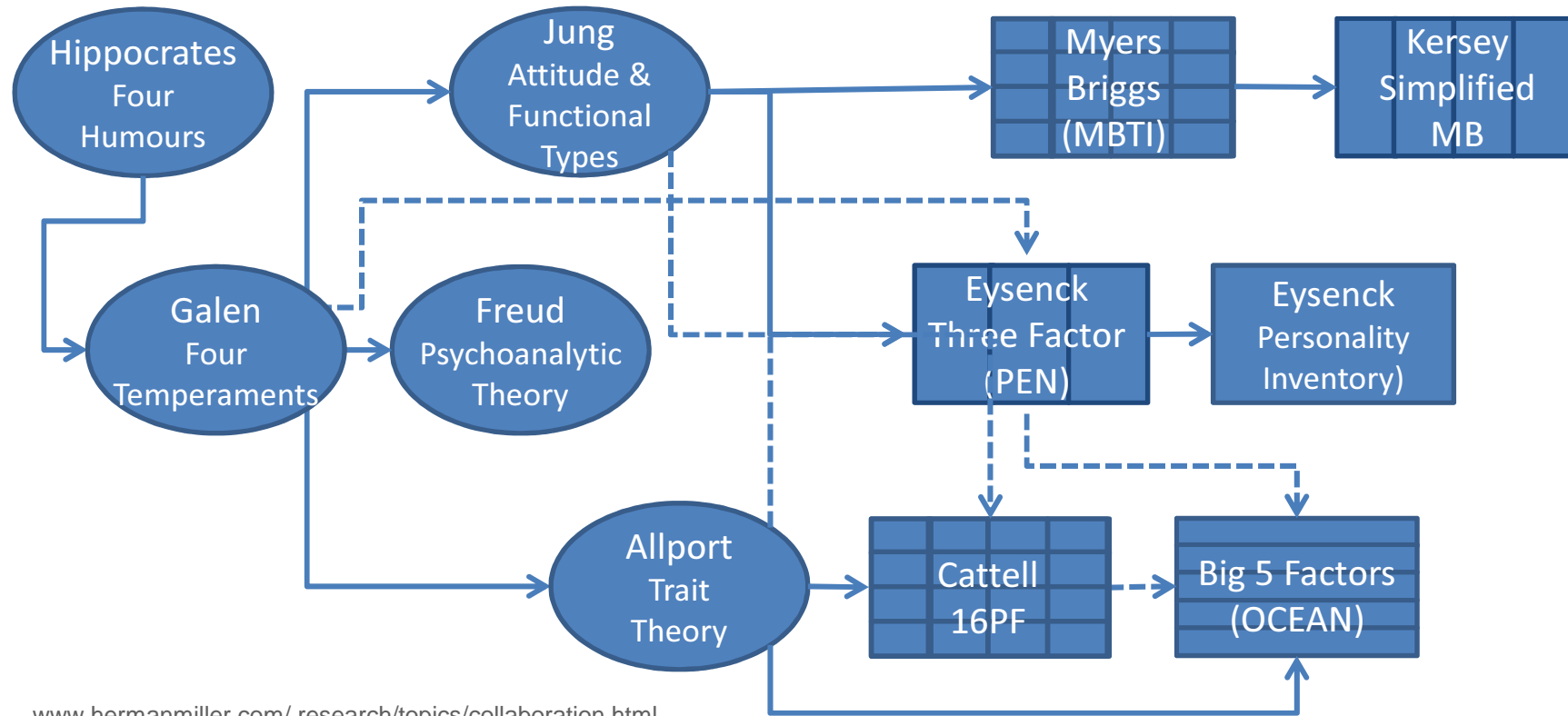


Oseland (2009) The impact of psychological needs on office design, JCRE, 11(4).



- Persona is Latin for "mask"
- *An individual's unique set of traits and consistent pattern of thinking and behaviour that persists over time and across situations*
- Personality is stable not fixed – bias for traits that affect behaviour

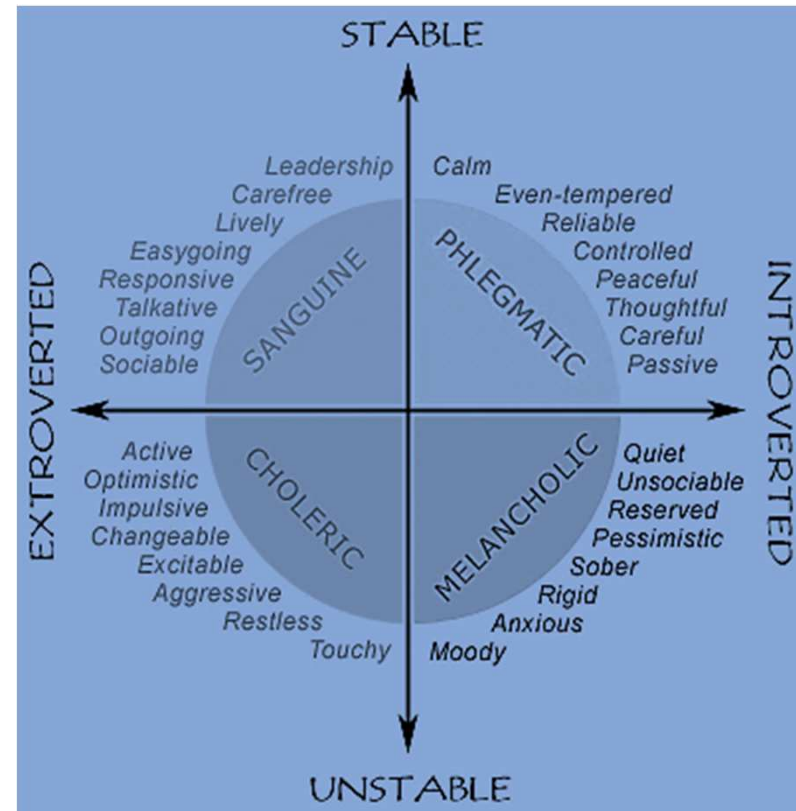




[www.hermanmiller.com/research/topics/collaboration.html](http://www.hermanmiller.com/research/topics/collaboration.html)

- Eysenk's classification =  
Extroversion - Neuroticism
- **Extroverts** – thrill seekers, require stimulation, social, impulsive  
*easily distracted when working alone*
- **Introverts** – prefer quiet life, solitary activity, reflective  
*distracted by noise and commotion*
- **Neuroticism** – ranges from calm/collected to anxiety/nervous  
*affects planning and communication*

[www.hermanmiller.com/research/topics/collaboration.html](http://www.hermanmiller.com/research/topics/collaboration.html)



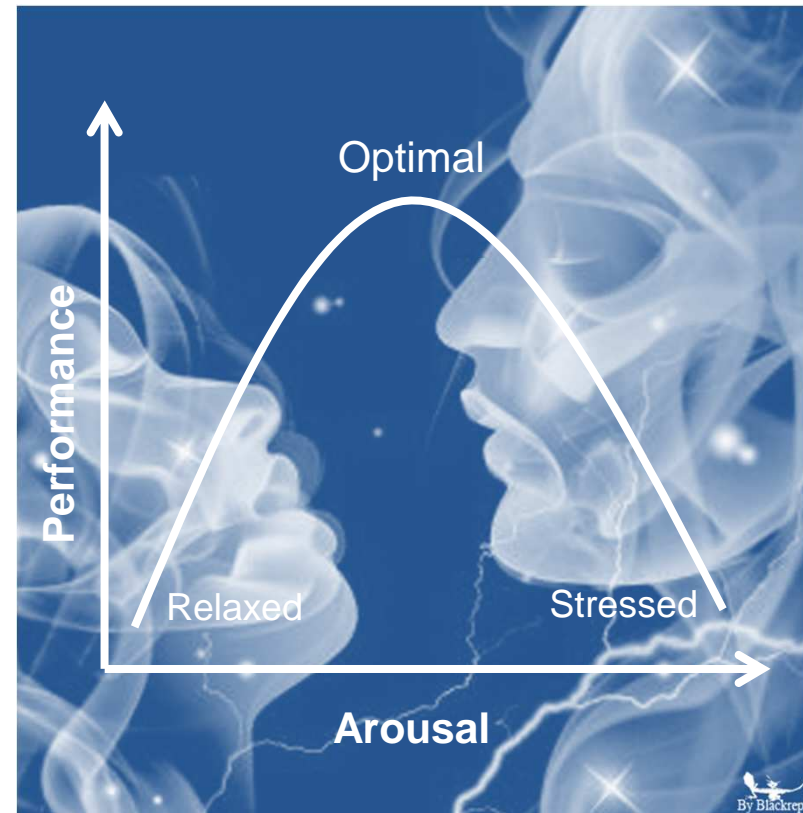
- “Dearth of research on link between collaborative work and space”
- Collaboration versus interaction:
  - two or more people work together to realise a shared goal that they could not have come to on their own
- Trust is key and interaction helps develop community and trust
- Heterogeneous teams more productive than homogenous

[www.hermanmiller.com/research/topics/collaboration.html](http://www.hermanmiller.com/research/topics/collaboration.html)



OCEAN	Implication for performance	Implication for collaboration
Openness	Good for creative tasks but detrimental to routine tasks	F2F meetings, brainstorming, plus stimulating, new spaces
Conscientious	Positive team performance across a wide variety of tasks	Planned, formal, well-organised, and minuted meetings
Extroversion	Imaginative or creative but inhibits precision and logic	F2F and socialising, large social groups plus impromptu, informal, off-site meetings, and stimulating spaces
Agreeableness	Good for long-term teams and tasks that involve persuasion	Meetings with structure and information to gain group consensus
Neuroticism	Level of emotional stability correlates with team output	Well-planned formal meetings with advance notice and information; also subdued environments.

- Inverted U shape relationship for level of arousal and performance
- We perform better when stimulated, but too much stimulation leads to stress too little to boredom
- Extroverts have a low level of arousal whereas introverts have a natural high level of arousal
- Complex tasks increase arousal, repetitive/detailed tasks decrease it
- Noise and cold are stimulating

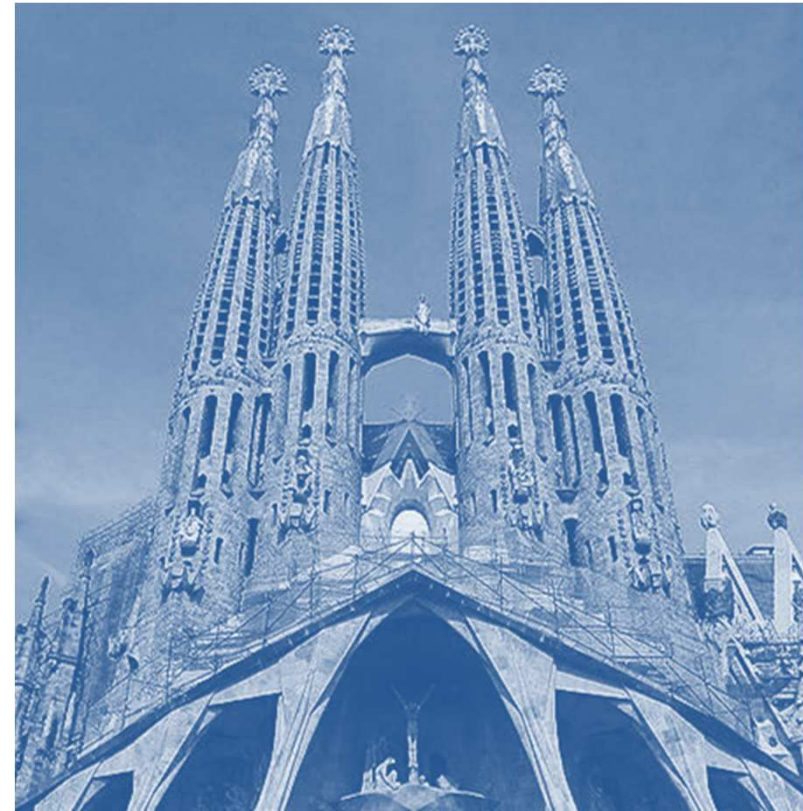




- Hall's proxemic framework:
  - personal distance is  $\sim 1.2$  m, social/business distance higher
- Altman's privacy model:
  - privacy is means of controlling level of interaction with others
  - personalisation is territorial behaviour, a coping mechanism
- Sociofugal and sociopetal space:
  - attractiveness related to finishes, layout and location

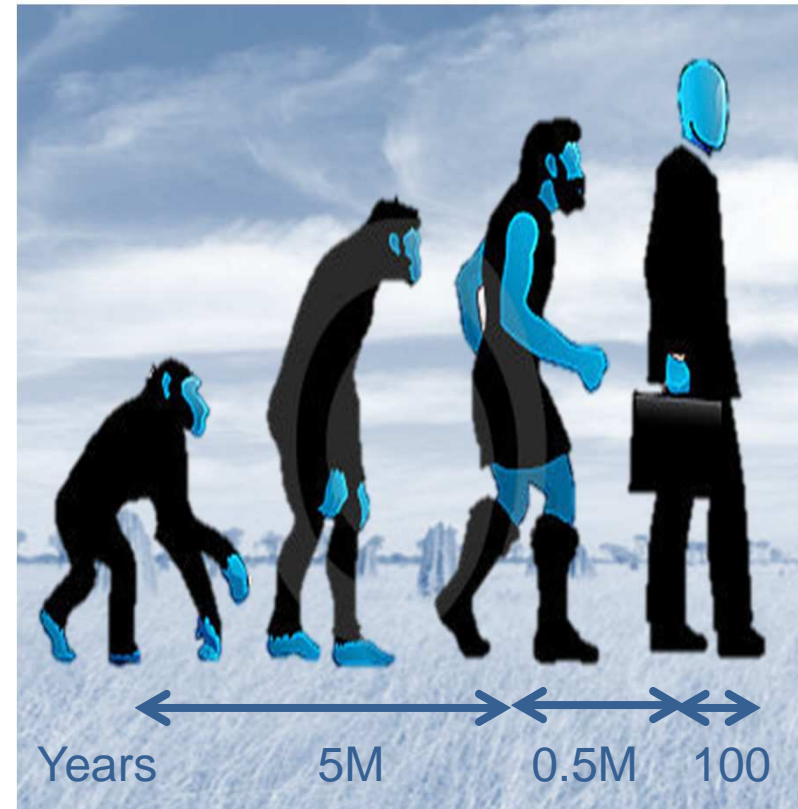


- Lewin:
  - behaviour in place is a function of physical environment and personality
- Barker:
  - behavioural settings relates to expectation, experience and preconceptions
- Not sure of rules and use of breakout and informal spaces

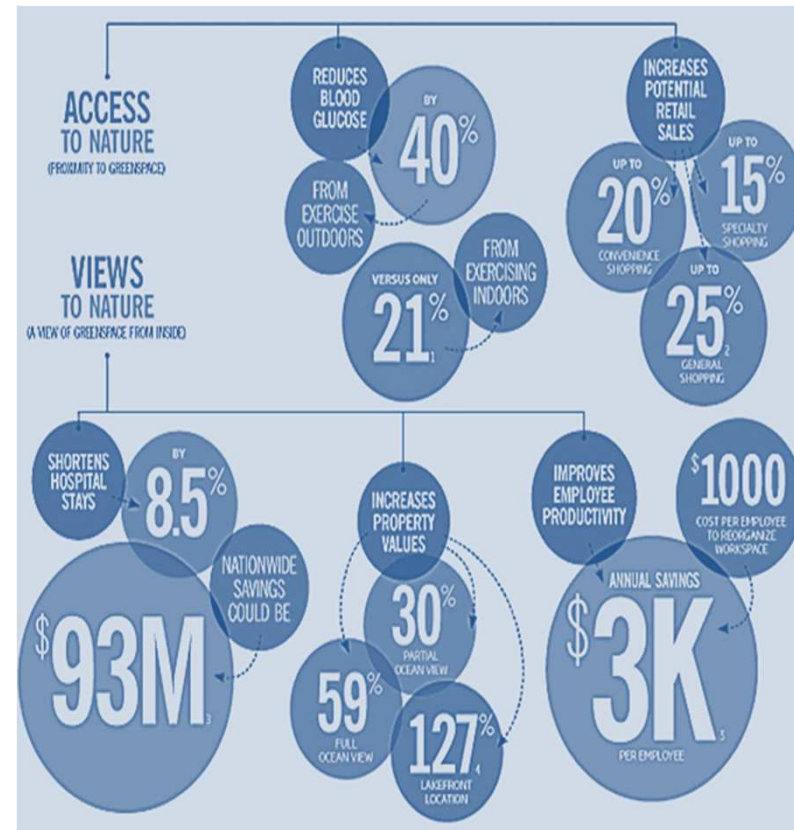




- From homo sapiens to office worker
- Psychological processes evolved to adapt to living on Savannah
- As hunter/gatherers we developed preference for:
  - vista/views/looking-out
  - natural light and ventilation
  - ambient noise levels
  - social animals, story telling
  - hearth/food/watering hole
  - inquisitive, contemplative



- Affinity to nature and greenery
- Place for contemplation & solitude
- “Non-taxing involuntary attention”
- Browning claims clear and quantified productivity benefits



Source: Terrapin Bright Green (2012) *The Economics of Biophilia* .

- Need range of different places depending on personality
- Offer choice of places to work
  - stimulating/busy/social areas or
  - quiet/contemplative/serene areas
- Encourage social interaction but respect privacy – avoid distraction
- Create team collaboration space and quiet solo spaces
- Avoid large deep plan, gloomy, dense, crowded, uninspiring places



# Thank You

**Nigel Oseland** PhD CPsychol



[oseland@workplaceunlimited.com](mailto:oseland@workplaceunlimited.com)



[@oseland](https://twitter.com/oseland)