

Many ways to help conference 2016
Melbourne

Pathways model update

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Disclosures & Conflicts of Interest

- › Financial & professional dealings with gambling industry & State and Federal governments directly & indirectly over the last three years:
 - Research funding, personal fees for professional consultancy, honoraria for grant reviews & theses examination, royalties for published books, & funding & expenses covered to attend & present at conference & government meetings
 - › Government departments or agencies funded by governments:
 - *NSW Office of Liquor, Gaming, & Racing, Australian Institute of Family Studies, Gambling Research Australia, Australian Department Social Services, Ministerial Expert Advisory Group (Federal Government)*
 - › Gambling industry operators:
 - *La Loterie Romande (Switzerland), Svenska Spel (Sweden), Club NSW (Australia), Comelot (UK), La Française des Jeux (France), Loto-Québec (Québec, Canada), Casino Austria, National Lottery (Belgium), Sportsbet, British Columbia Lottery Corporation, Aristocrat Leisure Industries*
 - › Organisations funded directly or indirectly from taxation &/or levies on industry:
 - *Victorian Responsible Gambling Foundation, Ontario Problem Gambling Research Centre, Responsible Gambling Trust, Manitoba Gambling Research Program, & honoraria & expense reimbursement for training programs & workshops conducted from government funded problem gambling counselling services*
 - › Non-industry or non-government agencies:
 - *National Association for Gambling Studies, National Council on Problem Gambling, Le Comité d'organisation Congrès international sur les troubles addictifs*
 - › All activities conducted with aim of enhancing responsible gambling policies & practices, training counsellors, & advancing knowledge of psychology of gambling
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Integrated pathway model of problem gambling

Its origin, evidence, &
clinical & policy
implications



30% to 50% of all scientific discoveries are to some extent serendipitous or 'lucky'.
(Dunbar et al. 2005)

Most build upon existing findings BUT do so by questioning fundamental assumptions

- Vulcanized rubber
- Teflon
- Nylon
- Penicillin
- Viagra
- Microwave oven
- Scotchgard
- Safety glass



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One question: *how do we explain
existing clinical & research findings?*





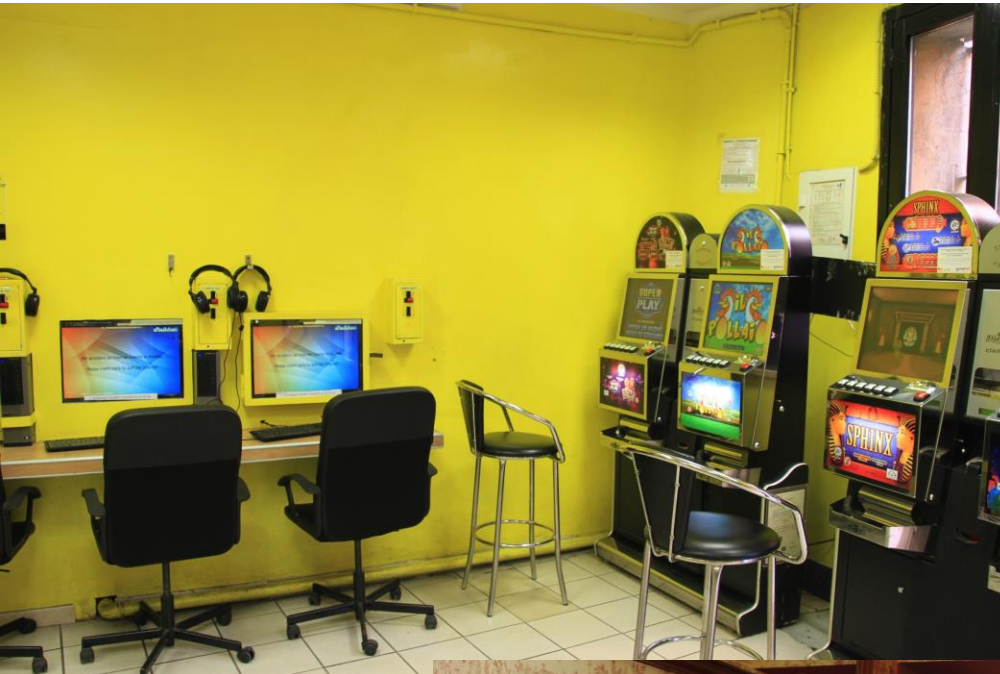
First assumption: ?Homogeneity

- Aetiological factors common to all gamblers
 - Environment, conditioning & cognitions
 - Vulnerability (*personality traits, neurobiology*)



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Cultural & ecological





Second assumption:

- Complex interaction of genetics, neurobiology, personality traits, life experiences, comorbid disorders, motivational, ecological & socio-cultural variables

Neurobiological/genetic

Meso-limbic/orbito-frontal reward systems
(shared with substance use)

Family history

Modeling
Exposure/attitude
Trauma/rejection

Personality traits

Coping strategies

Belief schemas

Peer group interactions



Third assumption:

- Motivations differ



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- Skill games: action, egoism, alleviate boredom
- Low skill: emotionally vulnerable seeking escape





Outcomes: explanatory models & subtyping

Multiple single explanatory models:

- Psychodynamic
- Genetic/neurobiological
- Behavioural
- Cognitive Behavioural
- Public health

Multiple subtyping

- Moran (1970)
 - Subcultural
 - Neurotic
 - Impulsive
 - Psychopathic
 - Neurotic



Integrated model of problem gambling

To translate clinical
experience & research
findings into an effective
framework guiding the
management & treatment of
gambling disorders



What is the integrated pathways model?



Pathways model: a brief overview

- Socio-cultural/ethnic context of gambling determines **attitudes/acceptance** of gambling
- Government regulatory framework dictates **availability/access**
- Industry & media promotion increases **attractiveness**



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Environment

Behaviourally conditioned

Arousal/excitement
Cognitive schemas

Emotionally vulnerable

**Emotional
escape**

Coping style

Biologically-based

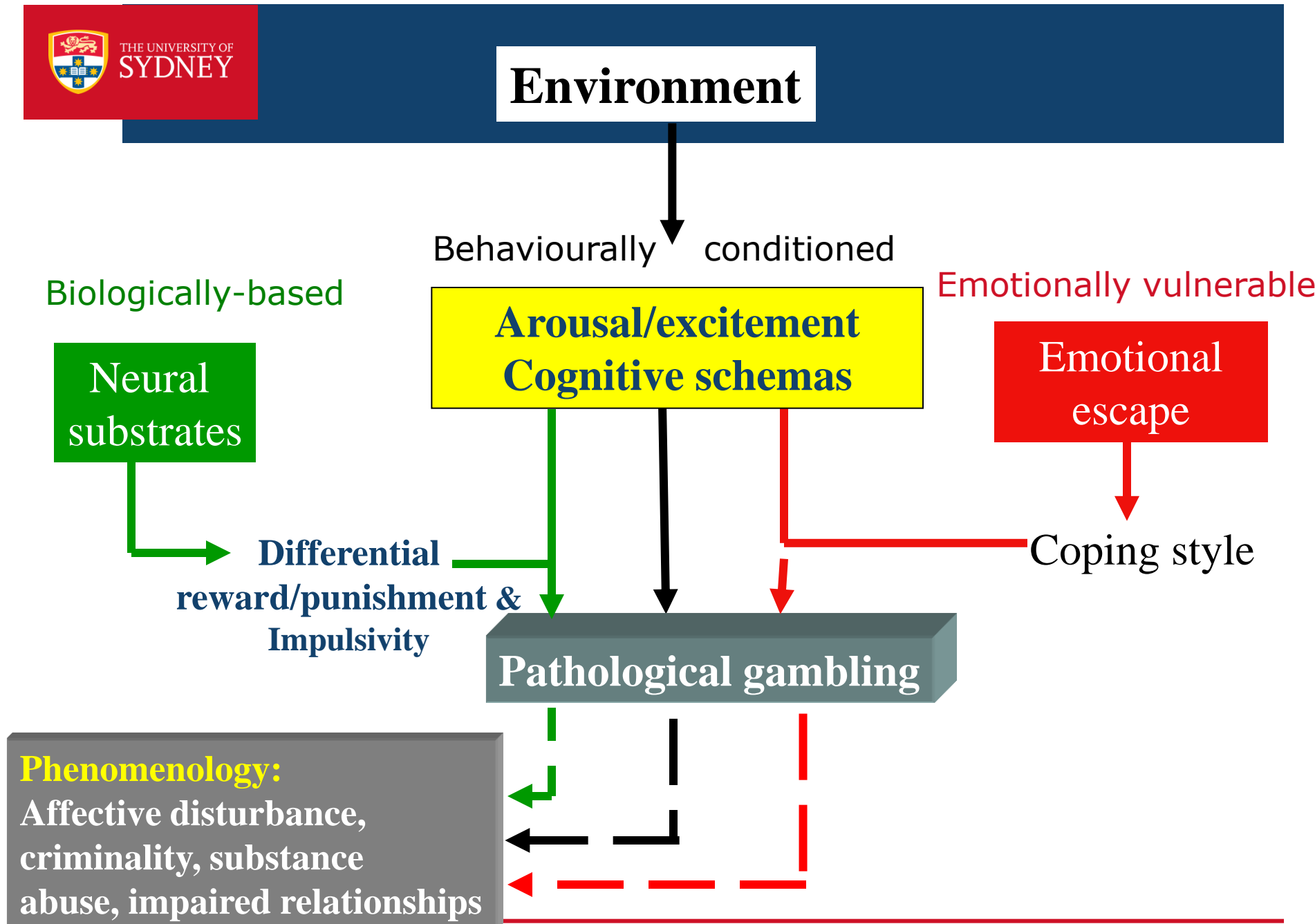
**Neural
substrates**

**Differential
reward/punishment &
Impulsivity**

Pathological gambling

Phenomenology:

Affective disturbance,
criminality, substance
abuse, impaired relationships



Three pathways model

(Blaszczynski & Nower 2002)

1. Behaviourally conditioned

Reinforcement & cognitive distortions → poor decisions

2. Emotionally vulnerable

Relieve/modulate pre morbid aversive affective states + behaviourally conditioned

3. Biologically vulnerable

Impulsivity, multiple maladaptive behaviours + behaviourally conditioned

- › Consistent support for three subgroups clustering predicted by the pathway model
 - › Common components: **Affect, impulsivity, cognitions & win experience**
 - Gonzalez-Ibanez et al. (2003)
 - Ledgerwood & Petry (2006)
 - Stewart & Zack (2008)
 - Turner et al. (2008)
 - Bonnaire et al. (2009)
 - Vachon & Bagby (2009)
 - Ledgerwood & Petry (in press)
 - Nower, Martins, Lin, & Blanco (2013) (based on NESARC data analyses)
 - Valleur, et al. (2015)
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› Differences across subtypes

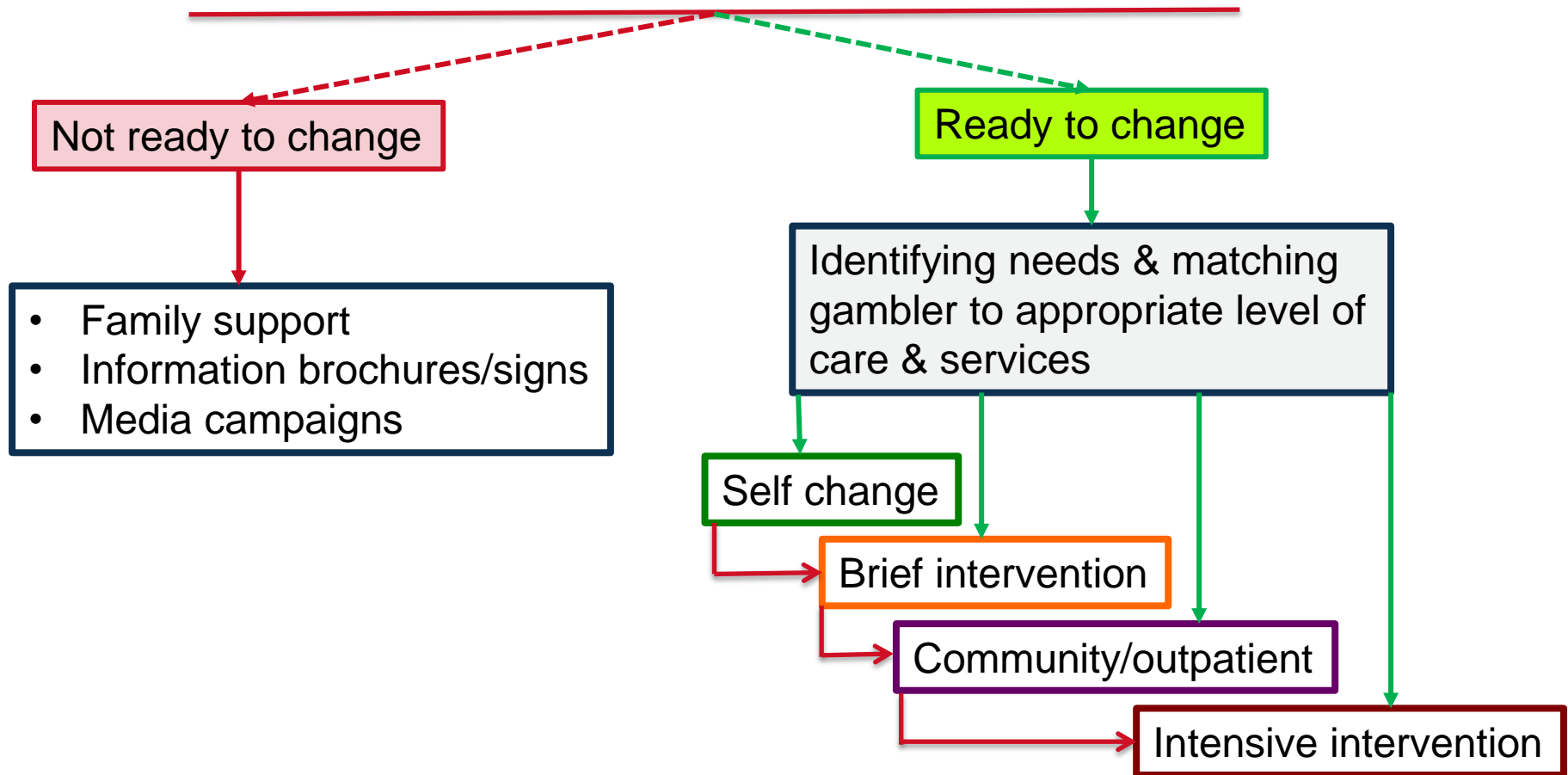
› Psychopathology

- *Pathway One*: Symptoms causal outcomes of gambling-related problems & are amenable to psycho-education, brief interventions & brief CBT
- Substantial role in *Pathway Two*: Affective disturbances, poor coping skills, & substance use pre-date & contribute to excessive gambling & require interventions
- Biological predisposition linked to impulsivity in *Pathway Three*: Psychopharmacology & intensive interventions

Treatment implications

1. Assists clinicians in matching treatment to subtypes to increase cost efficiencies & effectiveness of service delivery
2. Focus on modifiable risk factors & less focus on non-modifiable factors (*age, gender & genetics not modifiable but provide important information guiding treatment decisions & prognosis*)

Gambling Disorders



How do clinicians identify subtypes?

› Careful consideration of:

- Temporal sequence of gambling in relation to external factors & life experiences
- Comorbid conditions & their interaction with PG
 - Bidirectional link: Depression, anxiety, alcohol & nicotine dependence (*comorbidity weak predictive factor*)
 - Impulsivity predictor of PG & driver for both PG & depression
 - Absence of psychiatric disorder protective factor against later PG
 - Predictive factors: continuous forms, past wins, family members (*Williams et al., 2015*)

- › Multi-site clinical population study (n=1,170)
 - 127 items extracted from literature & expert review
 - Focus on temporal sequence of events
 - Exploratory, confirmatory & cluster factor analyses: correctly classified 88.6%
 - 48 items: Three factor model taking into account:
 - Anti-social behaviours
 - Impulsivity
 - Risk-taking
 - Emotional vulnerability
 - Stress-coping
 - Motivation
 - Child maltreatment
-

Pathways model policy implications

- › Shift in focus for media educational campaigns
 - Emphasis should be on improvement in quality of life
 - Majority of gamblers found in pathways 1 & 2

 - Addictive model more applicable to Pathway 3
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Pilot study measuring harms ($n=542$)

Top ten gambling related harms by aggregate score:
Gambling Effect Scale

Items	
1. Loss of savings	6. Hopelessness
2. Worry	7. Debt
3. Unhappiness/depression	8. Restricted leisure pursuits
4. Personal sense of loss of control	9. Relationship conflicts
5. Loss of self-respect	10. Poor sleep

Harms least commonly endorsed were:

1. Self-inflicted injury & suicide attempts
2. Bankruptcy
3. Eviction/loss of home

Diminished quality of life (majority) vs serious/critical harms (minority)

- **Media campaigns target smallest proportion of gambling disorders**
- ?Explains why only 10-30% meeting criteria enter treatment at any time

- › Media campaigns ought to focus on less severe end of the harm spectrum
 - Normalize help-seeking behavior by avoiding stigmatization (*distancing effects associated with fear/negative content*)
 - Emphasize improvement in quality of life
 - Promote strength/courage of gambler in taking first steps in personal development

Positive educational campaign targeting majority

- › *"You're Stronger Than You Think"* promotes help-seeking as a sign of strength, not weakness, & reminds people that they have recovered from setbacks in the past & can do so again with the help of the free range of Gambling Help services



<http://www.gamblinghelp.nsw.gov.au/real-story/youre-stronger-than-you-think/?colour=yellow>

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