Considering the Recreational Benefits of Currently Prohibited Drugs

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Patterns of Drug Use

- Dependent
- Heavy
- Recreational
- Experimental
Introduction

Benefits of drugs have often been neglected:

Research

– Pathology Model (cf. Mugford, 1988)
– Pleasure erased (e.g., Duff, 2008; Moore, 2008)

Treatment

– Motivational Interviewing
Approach

Identify key literature using search terms:
- Functional Drug Use, Drugs and Pleasure, Psychonaut, Recreational Drug Use, Pharmacological Enhancement, drug instrumentalization

Use of reviews or studies specifically focused on discerning the benefits users report

  e.g., Boys et al., 2001; Morgan et al. 2013, presentation of data from Global Drug Survey 2013
Key Benefits

Euphoria
Increased Energy
Relaxation
Enhanced Interpersonal Connection / Sociability
Personal/Spiritual Insight
Enhanced Cognitive Performance
Changing body image (e.g. weight loss, muscle gain)
Self-Medication
Players furious at video game bans: report

AUSTRALIA'S censorship agency was bombarded with complaints after it banned two violent video games, its annual report reveals.

Both games included drug use to enhance player abilities in the game, and one depicted implied sexual violence.

The Australian Classification Board considered 695 computer games during the year, with 291 receiving the G classification, making them suitable for viewing by anyone.

Two games were refused classification (RC), which means they can't be sold, hired, advertised or exhibited.

Saints Row IV, in which players seek to destroy the alien Zin empire, was given the thumbs down for implied sexual violence and use of "alien narcotics" to increase a player's in-game skills.

Classification guidelines bar any sexual violence or drug use related to incentives and rewards.

The same went for State of Decay, a zombie apocalypse game in which players can use morphine, amphetamines and other drugs to enhance in-game abilities.
Euphoria

Measurement?

– Pleasure: Social context?

“Happiness isn’t good enough for me. I demand euphoria!”
Key Benefits

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Euphoria

Measurement?

– Pleasure: Social context?
– Euphoria: 78% of people re: MDMA (Boys et al., 2001)
– High: Cocaine (Decorte & Muys, 2010)
– Intoxication: 77% re: LSD (Boys et al. 2001)
  intoxication is “a positive and enhanced state: a form of bodily pleasure” (Keane, 2009)
– 2-CB (Caudevilla-Galligo et al., 2012)

Ecstasy in name, ... (Hunt & Evans, 2008)
Increased Energy

Wakefulness:
- Dexamphetamine (Green & Moore, 2009)
- “Amphetamines”, “Ecstasy” & Cocaine (Boys et al., 2001; Morgan et al., 2013)

Increased productivity:
- Methamphetamine: chores, work longer, more time to socialise, drawing, sex (Lende, 2007)

Counteract other drugs:
- Dexamphetamine: You can drink like a trooper” (Green & Moore, 2009)
- Methamphetamine: “If we’re too pissed we’d usually have it to straighten us out. I never go anywhere without my little vial, just in case. If somebody get’s too fucked on ecstasy or too pissed…” (Pennay, 2012)
Relaxation

Drug instrumentalization theory: evolutionary basis? (Muller & Schumann, 2011)

Cannabis:
  – Relax: 97% (Boys et al., 2001) 92% (Morgan et al., 2013)
  – Sleep: 78% (Morgan et al., 2013)

Opiates: 50% (Morgan et al., 2013)

Stimulant drugs are also used for relaxation

MDMA (Hinchliff, 2001)
Improved Social Connectedness

Cocaine:

- “Facilitating communication” 48% of respondents (Decorte & Muys, 2010)
- “Sociability” 52% of participants (Morgan et al., 2013)

Ecstasy described as social disinhibitor:

- Highest ranked drug re: sociability in Morgan et al. (2013)
- ‘improved ability to communicate with romantic partners as well as an increased willingness to discuss their emotions and intimate experiences’ (Singer & Schensul, 2011, p. 1681)
- ‘positive consequences of ecstasy use included enhanced communication, strengthened relationship with people’ (Murphy et al., 2005)
- Ecstasy transforms connections with others – the social restraints are lifted by the effects of ecstasy (Hunt & Evans, 2008)
- These accounts fit with the use of MDMA to treat PTSD through reduced fear and increased capacity for intimate connection.
Personal/Spiritual Insight

MDMA

• History of use to enhance effectiveness of psychotherapy
• MAPS trials indicate successful treatment of PTSD

Carhart-Harris & Nutt, 2010:
• 81% of 600 reported having had a ‘spiritual experience’ from a hallucinogen.
• Relief from symptoms of depression through personal/spiritual insight reported for LSD, psilocybin and MDMA.
• Benefits of LSD/psilocybin included improved insight, perspective, self-understanding, acceptance, sense of inner peace.

Griffiths et al. 2008 – Johns Hopkins psilocybin study
• Administration of psilocybin in 36 hallucinogen-naïve humans
• Psilocybin experience judged one of the most meaningful / spiritually significant of their lives at 14 month follow-up.
Enhanced Cognitive Performance

Methylphenidate, Modafinil & Beta-blockers: 20% lifetime prevalence among 1,200 Nature readers (Maher, 2008)

Any non-prescribed substance: 24% Male 17% Female German university students past 12 month use (Dietz et al., 2013)

Dexamphetamine, Methylphenidate, Modafinil: 2%, 7.7% & 2.9% lifetime use among Australian university students (Mazzanov et al. in press)

LSD: Creativity (Tupper, 2003)
Changing body image

Weight loss among female ecstasy users (Curran & Robjant, 2006; cf. Morgan et al. 22%)

Amphetamines: 23% (Boys et al.) 35% (Morgan et al.)
Cocaine: 6% (Boys et al.) 36% (Morgan et al.)
Cannabis: used medicinally for weight gain (Swift et al., 2005)
Self Medication

Functional Drug Use
- 69% use Cannabis to improve mood (Boys et al., 1999)
- 74% use Cannabis to relieve anxiety & depression (Morgan et al., 2013)
- Reduced stress (for review, see Muller & Schumann, 2011)
- “Generation Rx” (Quintero & Nichter, 2011)

Drug instrumentalization

Mental Health → AOD use
(e.g., PTSD, ADHD, Bipolar Disorder, Borderline PD, etc.)
- Lost salience in favour of “alleviation of dysphoria” model
Drug type ratings on benefits

• Global Drug Survey 2013 – data presented here with permission of Adam Winstock and Will Lawn – Thanks!
• Aimed to explore commonly used drugs’ effects on 10 positive and 10 negative aspects.
• Which drug gives us the most benefits/pleasure with the least harm? (rated by users)
• 22,000 respondents globally
## Net Pleasure Index (NPI)

**If used in the last year rate the drug.**

**Each item rated between 0 and 10.**

**10 = maximum positive effect.**

**10 = maximum negative effect.**

<table>
<thead>
<tr>
<th>Positives</th>
<th>Negatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in mood (makes me feel happy) / confidence</td>
<td>Unpleasant physical effects when intoxicated</td>
</tr>
<tr>
<td>Increase pleasure from social interactions / being with others</td>
<td>Unpleasant psychological effects when intoxicated including the way you are with other people</td>
</tr>
<tr>
<td>Increase in ability to relax and unwind</td>
<td>Doing risky things that place you or others at risk of harm</td>
</tr>
<tr>
<td>Increased enjoyment/capacity for sex or physical activity</td>
<td>Feeling lousy / not being to function normally in the days after use</td>
</tr>
<tr>
<td>Increase in energy/alertness</td>
<td>Negative effects on your ability to work/study/progress personally</td>
</tr>
<tr>
<td>Increase in self-awareness and understanding</td>
<td>Unwanted effects on physical health</td>
</tr>
<tr>
<td>Increases and/or changes effects of other drugs used</td>
<td>Unwanted effects on mental health</td>
</tr>
<tr>
<td>Relief from pain and worries following use</td>
<td>Negative effects upon intimate/close personal relationships</td>
</tr>
<tr>
<td>Help me work/study/perform</td>
<td>Legal/criminal justice consequences</td>
</tr>
<tr>
<td>Helps me cope with life</td>
<td>Money problems / worries related to your use of this substance</td>
</tr>
<tr>
<td><strong>Positive items (rated 0-10)</strong></td>
<td><strong>Top</strong></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Increase in mood (makes me feel happy) / confidence</td>
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<tr>
<td>Increase in energy/alertness</td>
<td>Amphetamine</td>
</tr>
<tr>
<td>Increase in self-awareness and understanding</td>
<td>LSD</td>
</tr>
<tr>
<td>Increases and/or changes effects of other drugs used</td>
<td>Ketamine</td>
</tr>
<tr>
<td>Relief from pain and worries following use</td>
<td>MDMA</td>
</tr>
<tr>
<td>Help me work/study/perform</td>
<td>Amphetamine</td>
</tr>
<tr>
<td>Helps me cope with life</td>
<td>Tobacco</td>
</tr>
<tr>
<td>Negative items (rated 0-10)</td>
<td>Top</td>
</tr>
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<td>------------------------------------------------------------------------------------------</td>
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Net Pleasure Index (NPI)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Approximate N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>20,000</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>3,000</td>
</tr>
<tr>
<td>Cannabis</td>
<td>13,000</td>
</tr>
<tr>
<td>Cocaine</td>
<td>5,000</td>
</tr>
<tr>
<td>Ketamine</td>
<td>2,000</td>
</tr>
<tr>
<td>LSD</td>
<td>3,000</td>
</tr>
<tr>
<td>Mushrooms</td>
<td>3,000</td>
</tr>
<tr>
<td>MDMA</td>
<td>8,000</td>
</tr>
<tr>
<td>Mephedrone</td>
<td>800</td>
</tr>
<tr>
<td>Tobacco</td>
<td>10,000</td>
</tr>
</tbody>
</table>
Discussion

Beyond harm reduction:

• Without acknowledging understandings of benefits, we can’t fully understand the ways drugs are used.
• If you can’t acknowledge benefits, harder to discuss moderate use strategies.
• Interventions are more credible if benefits included.
• Resilience/Maximising benefits.

Drug classifications do not reflect user or expert ratings of harms and benefits (c.f. Nutt, Morgan, GDS). Role of “pathological narrative”
Limitations – where to from here?

Problem with assigning effects to drugs alone – need to remember drug, set, setting:
  e.g., how to interpret net pleasure index given it is pharmaco-centric?

Polydrug use (Hunt et al., 2009)

Overlapping benefits and blurred definitions

Bias inherent to self report

Accessing functional drug users for research?? – stigma
"Most nations prohibit most drugs that could promote happiness, social capital, and economic growth; that most individuals underuse rather than overuse drugs; and that behavioral scientists could use drugs more effectively in generating hypotheses and collaborating empathically." (Miller, 2011; Behavioral and Brain Sciences)

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(References cited are available upon request)