

Impact of Australia's tobacco plain packs on adult smokers' pack-related perceptions and responses

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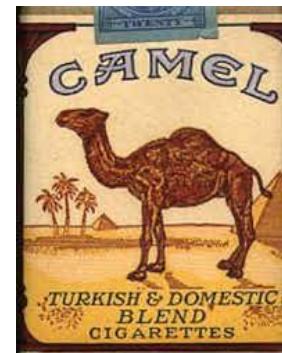
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Tobacco Packaging: The 'Silent Salesman'

- Modern packs = result of decades of **consumer testing**
- Designed to **maximize appeal** and **distract from risk**

"If your brand can no longer shout from billboards, let alone from the cinema screen or the pages of a glossy magazine...it can at least court smokers from the retailer's shelf, or from wherever it is placed by those already wed to it" Tobacco Industry Internal Documents



The Tobacco Plain Packaging Act 2011

- Plain packs are **devoid of brand design** elements and continue to carry coloured **graphic health warnings** (enlarged to cover 75% of the total pack)
- Manufacturers to produce plain packs with new warnings from **1 October 2012**
- Compulsory for all tobacco products to be sold in plain packaging from **1 December 2012**



The Tobacco Plain Packaging Act 2011

- **Objectives:**
 - a) Reduce **attractiveness and appeal** of tobacco products
 - b) Increase the noticeability and effectiveness of **health warnings**
 - c) Reduce ability of packaging to **mislead** consumers about harms of smoking

Through achievement of these aims, as part of comprehensive tobacco control, to contribute to **reductions in smoking rates**

The Current Study

- **Aim:** To investigate the impact of Australia's plain tobacco packaging policy among **adult smokers** on two stated purposes of the legislation
 - Increasing the **salience** and **impact of health warnings**
 - Decreasing **promotional appeal of packaging**



Method: Cancer Institute Tobacco Tracking Survey (CITTS)

- Serial cross-sectional **telephone survey** (landline) of adult smokers (and recent quitters)
- Random digit dialling
- Continuous tracking survey: **50 interviews/week**
- Smokers; **April 2006-May 2013** (n=15,745)

Method: Outcome Measures

1. Graphic Health Warning Impact

(strongly disagree-strongly agree)

- a) **Cognitive** response: 'The graphic warnings encourage me to stop smoking' (March 2006)
- b) **Emotional** response: 'With the graphic warnings, each time I get a cigarette out I worry that I shouldn't be smoking' (March 2006)
- c) **Avoidance**: 'They make me feel that I should hide or cover my pack from view of others' (April 2007)
- d) **Salience**: 'The only thing I notice on my pack is the warnings' (October 2011)

Method: Outcome Measures

2. Pack Perceptions: 'The look of my cigarette pack...' (strongly disagree-strongly agree)

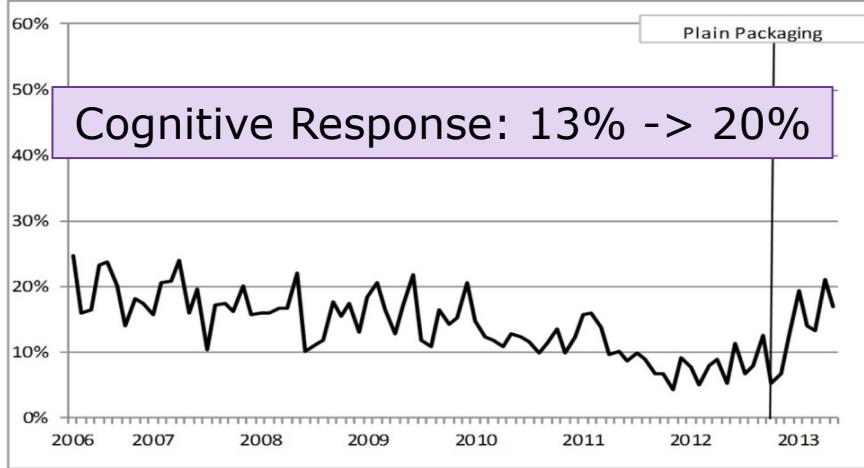
- a) Is attractive
- b) Says something good about me to other smokers
- c) Influences the brand I buy
- d) Makes my brand stand out from others
- e) Is fashionable
- f) Matches my style



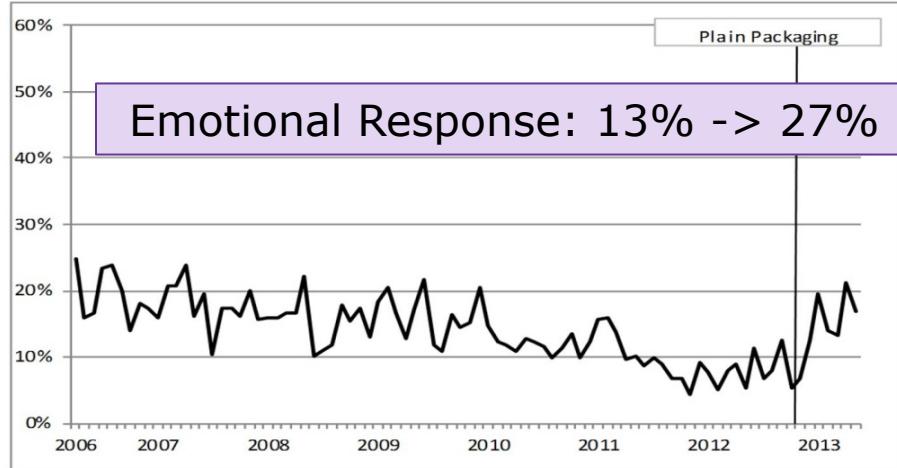
Results: Analysis 1

- **Interrupted time-series** analyses to detect influence of policy on monthly averages
 - ARIMA modelling
 - Controlling for **background trends, seasonal** variations, cigarette **costliness**, anti-smoking advertising activity

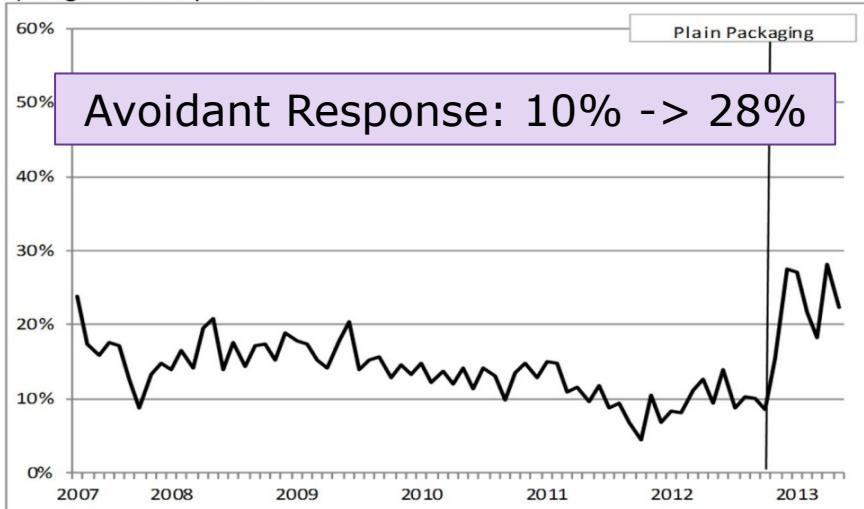
Results: Responses to Graphic Warnings



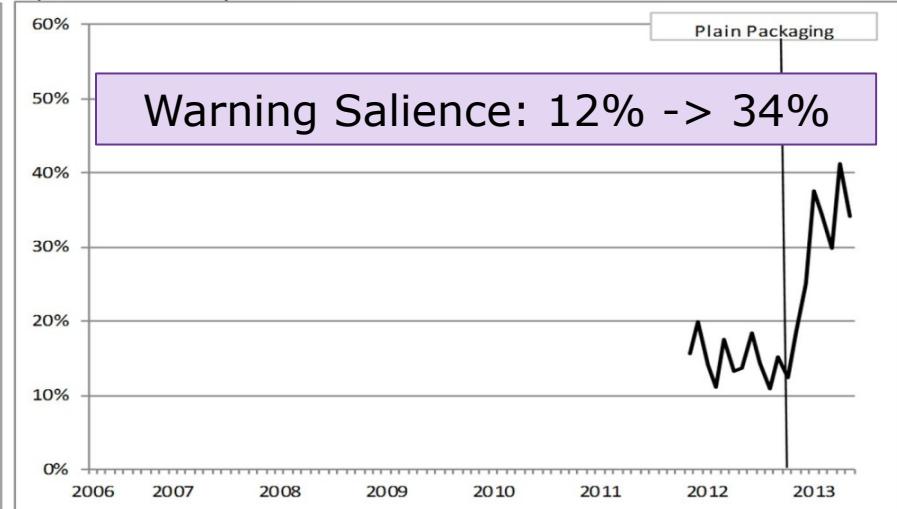
a) Cognitive response



b) Emotional response

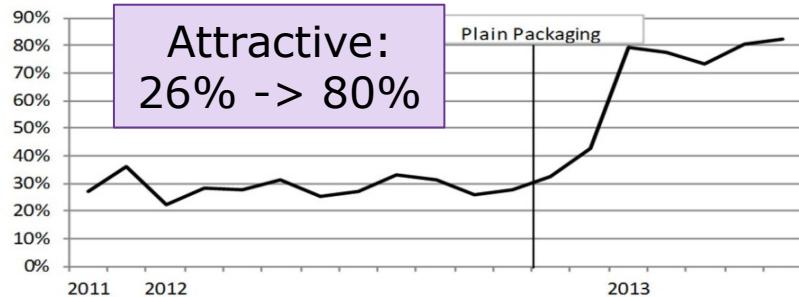


c) Avoidant response



d) Warning Salience

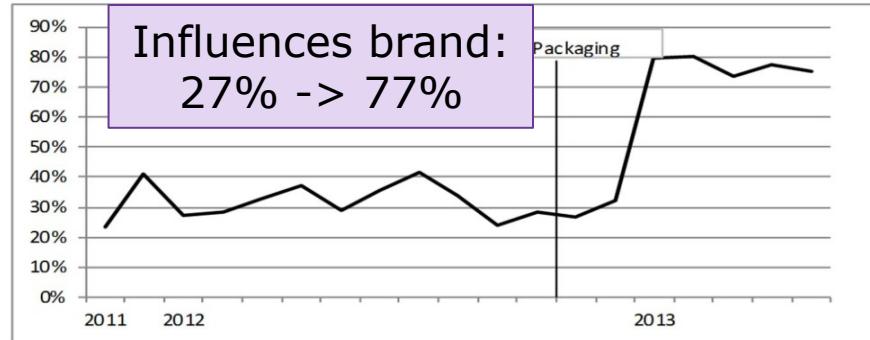
Results: Pack Perceptions



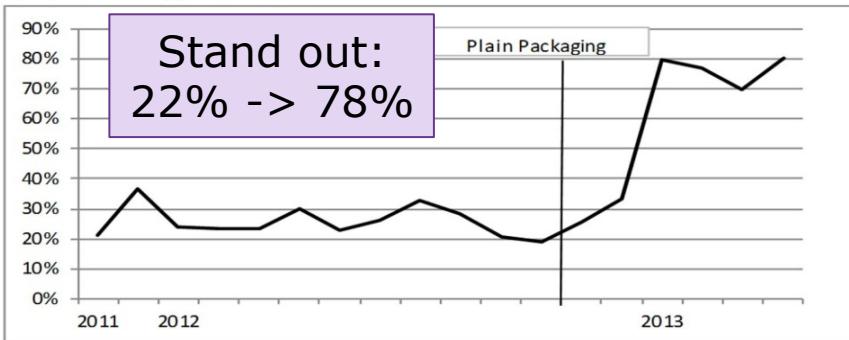
a) Attractive



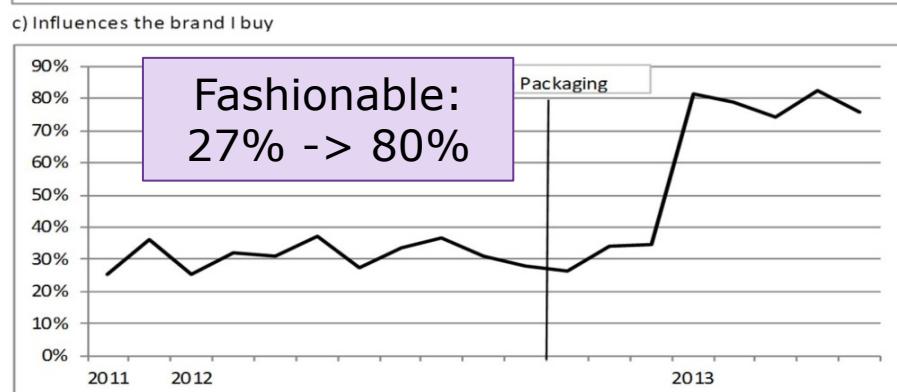
b) Says something good about me



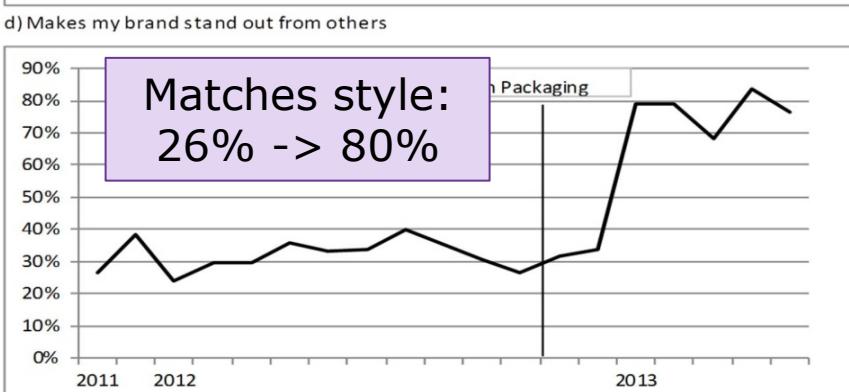
c) Influences the brand I buy



d) Makes my brand stand out from others



e) Fashionable



f) Matches my style

Results: Analysis 2

- **Regression analyses** predicting scores on two scales:
 - **Graphic Health Warning Impact** (avg. 4 items, alpha=0.7)
 - **Negative Pack Perceptions** (avg. 6 items, alpha=0.87)
 - Scales took into account variation on all response options
- **IV:** month of interview
- **Covariates:**
 - **Time-related:** 3mth change in cigarette prices, 3mth anti-smoking advertising activity
 - **Individual level:**
 - Demographics: sex, age, SES (income + education)
 - Smoking: frequency, heaviness of smoking, 12m quitting

Results: Regression Analyses

		Plain packaging period (2012-2013)					Comparison period (2011-2012)				
		M	β	95% C.I.	p		M	β	95% C.I.	p	
GHW Impact	Aug/Sep	2.67	Ref				n/a				
	Oct/Nov	2.75	0.00	-0.16	0.18	0.932	2.57	Ref			
	Dec/Jan	2.88	0.09	0.07	0.46	0.008	2.62	-0.01	-0.25	0.21	0.847
	Feb/Mar	2.75	0.07	-0.04	0.39	0.110	2.77	0.10	-0.19	0.58	0.323
	Apr/May	2.85	0.06	0.01	0.34	0.043	2.67	-0.01	-0.52	0.48	0.930
Negative Pack Perceptions	Aug/Sep	3.95	Ref				n/a				
	Oct/Nov	3.96	0.02	-0.47	1.06	0.449	4.03	Ref			
	Dec/Jan	4.50	0.27	2.74	4.18	<0.001	4.11	0.06	-0.43	1.46	0.286
	Feb/Mar	4.58	0.37	3.14	4.75	<0.001	4.08	0.03	-1.40	1.88	0.775
	Apr/May	4.64	0.40	3.87	5.21	<0.001	4.03	0.07	-1.61	2.80	0.598

Key Findings

- The **introduction** of the new packs were followed by an **increase in the salience and impact of on-pack health warnings** and **negative perceptions about tobacco packs** among adult smokers
- Not attributable to changes in price, campaigns, seasonal effects, background trends, or sample composition
- Consistent with the **specific objectives** and expected effects of the plain packaging legislation

Study Limitations

- **Relative contribution** of the removal of branding and changes to the warnings cannot be determined
- **Landline phone numbers** only, likely to be excluding some younger/male smokers



Study Strengths

- Population-level data with a large **sample**
- Time-series analysis with **multiple data points** pre-intervention
- **Statistical control** for secular and seasonal trends, tobacco prices, anti-smoking advertising activity, individual characteristics
- Sample consisted of continuing smokers, therefore detecting effects in the **more resistant group**

Implications: Responses to Graphic Warnings

- Impact of graphic warnings on **smoking behaviours** is a function of the depth of smokers' cognitive processing and responses to the warnings

(Borland et al., 2009; Yong et al., 2014)

- Suggesting that **flow-on effects** on consumption and quitting are likely



Implications: Pack Perceptions

- Evidence from marketing shows that branding and packaging **modify the subjective experience** of products
 - Anecdotal evidence: **cigarettes tasted worse** with the introduction of plain packaging
 - Phase-in period: smokers smoking from plain packs during perceived their cigarettes to be **less satisfying and lower in quality** than a year ago (Wakefield et al., 2014)
- If **enjoyment of smoking is a barrier** to quitting, PP might reduce that barrier and increase the likelihood of quitting

What's next?

- Possibilities for **future research**:
 - What is the relationship between smokers' responses to their plain packs and changes in **smoking behaviours**?
 - Were the effects in **youth** smokers?
 - What is the impact of plain packaging on perceptions about smoking among **non-smokers** (youth and adults)?
- **Remembering that the biggest impact of plain packaging is likely to be seen in coming generations**

THANK YOU

To my co-authors:

Dr Timothy Dobbins
Prof. Jane Young
Ms Donna Perez
Prof. David Currow

To the Symposium organisers

Paper forthcoming in *BMJ Open*