



## Identifying the determinants of concealed and obvious texting while driving: Are they distinct behaviours?

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Cassandra Gauld  
Dr Ioni Lewis  
Professor Katherine White

Centre for Accident Research & Road Safety - Queensland

CARRS-Q is a joint venture initiative of the  
Motor Accident Insurance Commission  
and Queensland University of Technology



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### Overview

- Rationale
- Aim/s
- Design
- Results
- Conclusions
- Future research

Note:

CT = Concealed texting  
OT = Obvious texting

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## Rationale

- **Approx. 68% of drivers admit to sending text messages** (NRMA, Campbell, 2012)
- Text messaging while driving involves higher levels of
  - a) **cognitive** distraction
  - b) **physical** distraction
  - c) **visual** distraction
- Young drivers more likely to text and, when they do, **spend 400% more time looking away from the road when texting than when not.**

(Hosking et al., 2006; WHO, 2011)



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## Rationale cont...

- **Laws banning texting are difficult to enforce as it is hard to catch a texter:**
  - tinted windows;
  - sporadic engagement;
  - can pause if being observed;
  - difficult to detect at night
- emerging evidence that drivers may be deliberately concealing their texting to avoid being fined
  - \* **attention further diverted from road**
  - \* **possible crash risk ↑**

(Farris, 2011; Gilbert et al., 2010; Highway Loss Data Institute, 2011)

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## Rationale cont...

- Limited, if any, research on CT and OT as distinct behaviours
- Need to develop other countermeasures, such as advertising to support enforcement efforts



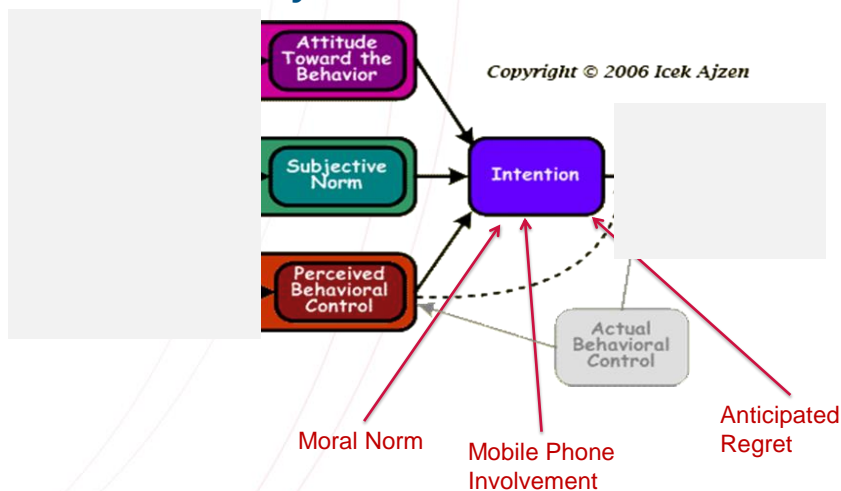
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## Aims

- Specific aim:  
To explore whether concealed texting (CT) and obvious texting (OT) may be distinct behaviours with different underlying motivations.
- Broad aim:  
Determine whether provides initial evidence that advertising countermeasures may require different focal points.

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## Study design: The Theory of Planned Behavior



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## Main hypotheses

1. For the standard TPB constructs of attitude, subjective norm, and PBC:
  - a) They will together predict participants' CT and OT intentions while driving in the next week
  - b) They will be different for CT and OT on
    - Their individual contributions; and
    - Their means

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## Main hypotheses cont...

2. For the **additional constructs** of moral norm, mobile phone involvement, and anticipated regret:

- a) They will **together improve the prediction** of intention to both conceal and obvious text over and above the standard TPB constructs
- b) There will be **significant differences between the means** for CT and OT for each of these constructs
- c) The **additional constructs may vary** in their ability to predict CT and OT intentions (exploratory)

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## Participants ( $N=171$ )

- Aged 17 to 25 years (*mode* = 18);
- F=126, M=37, unreported = 8;
- 1<sup>st</sup> yr psychology students = 110, Other participants = 61;
- Average driving time per week=6.9h;
- Owned a mobile phone;
- Had a driver's licence; and
- Resided in QLD



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### Focus groups ( $n = 12$ )

How would you define CT and OT?

### Questionnaire ( $n = 171$ )

How well do the standard and extended TPB variables predict CT and OT intentions while driving in the next week?

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## Questionnaire

- Based on standard TPB self-report format and included standard and extended TPB constructs as independent variables
- Intentions to OT and CT were dependent variables.
- Mobile phone involvement was measured using the Mobile Phone Involvement Questionnaire (Walsh et al., 2010)
- Most items were measured on likert scales
- Also assessed demographic data

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Variable	Sample question
Attitude	'For me, texting in a concealed manner while driving in the next week would be (1) <i>Harmful</i> – (7) <i>Harmless</i>
Subjective Norm	'People important to me would want me to text in a concealed manner while driving in the next week'
Perceived Behavioural Control	'I am confident that I could text in a concealed manner while driving in the next week'
Moral Norm	'It would be against my principles to text in a concealed manner while driving in the next week'
Mobile Phone Involvement	'I often think about my mobile phone when I am not using it'
Anticipated Regret	'If I text in a concealed manner in the next week I would feel regret'

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## Results: Definitions

**Concealed texting:** “making a **conscious effort to hide** the fact that you are texting while driving (e.g., by hiding your phone below the window or steering wheel). In doing so, it is **not obvious** to people outside your vehicle that you are texting”.

**Obvious texting:** “not making a conscious effort to hide the fact that you are texting while driving. In doing so, it may be **obvious** to people outside your vehicle that you are texting”

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## Results: Descriptives

	Participants who reported <b>sending a text message</b> while driving at least 1 – 2 times per week	Participants who reported <b>reading a text message</b> while driving at least 1 – 2 times per week
In a <b>concealed</b> manner	<b>50.9%</b>	<b>60.8%</b>
In an <b>obvious</b> manner	<b>24.0%</b>	<b>31.6%</b>

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## Results:

Difference between means for CT and OT

Construct

Significant?

Attitude



Subjective norm



PBC



Moral norm\*



Anticipated regret\*



Intention



\*Mean higher for OT

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## Results: Regression analyses

	CT		OT
Attitude	✓ $\beta = .30^{***}$	] $R^2 = .69$	✓ $\beta = .26^{***}$
Subjective norm	✓ $\beta = .10^*$		✓ $\beta = .13^*$
PBC	✓ $\beta = .36^{***}$		✓ $\beta = .28^{***}$
Moral norm	✓ $\beta = -.27^{***}$	] $\Delta R^2 = .06$	✓ $\beta = -.41^{***}$
Mobile phone involvement	✓ $\beta = .18^{***}$		✗ $\beta = .06$
Anticipated regret	✗ $\beta = .10$		✗ $\beta = .07$
			] $\Delta R^2 = .55$

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## Results: Regression analyses cont...

All main hypotheses supported, that is:

### - Standard constructs

- together predicted both CT and OT
- amount of variance explained different for each for CT and OT



### - Additional constructs

- accounted for further variance for CT and OT
- different predictors emerged for CT and OT in final model (i.e., mobile phone involvement and moral norm for CT; Moral norm only for OT).

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## Conclusions

- CT and OT may be distinct behaviours with different underlying motivations.
- May provide focal points for advertising countermeasures; for example focus on:
  - challenging positive attitude;
  - the ease with which they drivers believe they can do it;
  - highlighting the disapproving influence of important referents;
  - moral norm for OT by emphasising the illegal nature; and
  - mobile phone involvement for CT by challenging the constant need to stay connected

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## Future research?

- Given the greater reported prevalence, higher means, and possible higher crash risk, a future focus on CT may be worthwhile
- Mobile phone involvement for CT:
  - perceived benefits (i.e., staying connected) outweigh perceived risks (i.e., police apprehension as phone is concealed)?
- Anticipated regret for neither CT nor OT:
  - could the idea of not returning a text have more regret associated with it than returning the text (i.e., idea of anticipated 'inaction regret')?

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# Questions?

**c1.gauld@qut.edu.au**



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