

Reducing the Risk of Bicycle Theft

Introduction

Bicycles are what Clarke (1999) refers to as a hot product. The International Crime Victim Survey indicates that cyclists are around three times more likely to have their bike stolen than car owners their car or motorcycle owners their motorbike.

In the UK, cycle theft is one of the few crimes to show a year on year increase since 2001.

The problem of bicycle theft has received relatively little academic attention but opportunities for bicycle theft are increasing. In the US, between 1992 and 2006, bicycle sales have increased by roughly 20% from 15.3 million to 18.2 million per year.

Here we report the findings of research which aimed to better understand how cyclists lock their bicycles in public spaces and to see if targeted design-based interventions can reduce the likelihood of theft.



60%
Typical (bad) locking practice observed

Identifying the Problem

Over 10k parking events were observed and cyclists locking practice classified using the typology below:



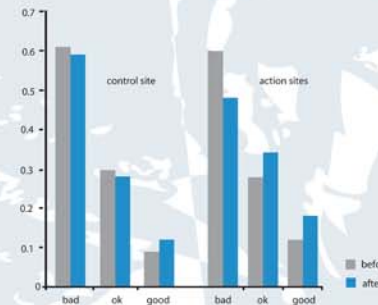
Intervention 1 – Communication Strategy

Stickers with an illustration of secure locking practice and a short advisory tag line were placed on standard Sheffield stands (Π-shape) at four action sites. At a fifth 'control' no stickers were introduced.



Intervention 1 – Results

The positive effect was statistically significant but small. A replication in a different study area revealed the same results.

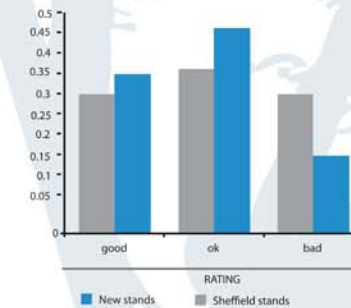


Intervention 2 – New Stand Designs

New stands were developed which aimed -through the "invisible hand of the designer" - to communicate with cyclists to encourage and facilitate better (more secure) locking practice. After observing locking practice at Sheffield stands the new designs were installed. Post-intervention observations were made at both stand types.



Intervention 2 – Results



| | Chain | Pagoda | m-straight | Offset M |
|------|-------------|-------------|-------------|-------------|
| Good | 1.70 | 1.64 | 1.21 | 0.88 |
| OK | 1.06 | 0.98 | 1.49 | 1.76 |
| Bad | 0.23 | 0.39 | 0.22 | 0.22 |

Ratios show how likely each type of locking behavior was for each type of stand compared to Sheffield stands. Values in bold are statistically significant.

Summary

Stickers illustrating how cyclists should lock their bikes led to a small but reliable improvement in locking practices. Our interpretation of this is that it is possible to change cyclists locking practices through targeted communication strategies. However, it would appear that a more direct approach of redesigning street furniture has a much greater impact.

Reference: Johnson, S., Sidebottom, A. and Thorpe, A. (2008). Bicycle theft. Problem-Oriented Guides for Police Series.