

By John
Naish

AS YOU consider rushing out to the High Street sales today, beware of becoming a victim of the so-called 'contactless' credit card revolution that is being championed by banks and which allows people to pay for items by just scanning their cards, rather than entering a four-digit number. The contactless technology has been gradually introduced over the past year or so and is deemed successful by banks, who now want to take the system to a 'whole new level'.

One example is shoppers being offered high-tech woollen mittens that pay for goods with a quick and simple tap of the finger in a shop. This is intended to make paying even faster and easier — the mitts are embedded with a small contactless chip that can be linked to a credit or debit card. Barclaycard is one of the pioneers and is even working on 'his and hers' versions of the gloves, with the women's version having a softer, more 'fleecy' appearance.

The fact is that use of contactless technology is increasing every month. The latest figures — for September — show that £253 million was spent this way in Britain, according to the trade body, the UK Cards Association. Contactless debit or credit cards allow you to pay for items worth up to £20 without entering your PIN (personal identification number). Cards contain a small chip that works via radio waves. To pay for an item, the card is held within a few inches of a payment terminal, which picks up a signal and takes your money.

Barclaycard introduced the first contact-less cards in the UK in 2007, but take-up of the technology was initially slow due to a shortage of matching terminals in shops. Now there are more than 200,000 terminals in the UK and banks have issued more than 54 million contactless cards. The new contactless gloves were developed after Barclaycard asked customers what piece of clothing could be used to make paying easier. If the current trial of a prototype is a success, they will be launched around the country.

'Most of us have experienced the stress of holding bags full of shopping while trying to find a spare hand to get our card out to pay,' says Mike Saunders, of Barclaycard. 'The gloves remove the need to rummage around for your wallet.' However, convenience comes at a price for consumers. People with contactless cards spend around 10 per cent more than those with conventional chip-and-pin credit and debit cards, according to a study by the Swiss economist Dr Tobias Truetsch. He has said: 'The new system induces individuals to undertake more frequent transactions.' An earlier study by MasterCard had even more worrying results.

People using the first contactless payment systems spent nearly a third more on goods within the first year than they ever had previously. The study suggested that the novelty of using the cards contributed significantly to the rise. But psychologists have another explanation: the technology takes the mental 'sting' out of spending money.

Drazen Prelec, a psychologist at the Massachusetts Institute of Technology who studies buying decisions in the brain, believes that the easier it is for people to pay for goods, the less aware they are of splashing out needlessly. He says that if we are spending *cash*, we are only willing to spend half as much for the same item than if we are using a credit card. In fact, brain-scan studies indicate that humans feel a wince of pain when handing over cash. Not surprisingly, the biggest twinge comes from handing over a large-denomination note.

Arul Mishra, an assistant professor of marketing at the University of Utah, who studied this phenomenon for the *Journal of Consumer Research*, made a further interesting observation: are less likely to spend if they are carrying a £50 note compared to when they have ten £5 notes because they are reluctant to break into a bigger note.



By contrast, psychologically, paying with contactless technology can almost feel like not paying at all. As no cash changes hands or there is no significant transaction using a credit card with a PIN tapped into a machine, people feel that they are not spending money. Of course, this exacerbates British shoppers' weakness for impulse-buying at the sales.

For a survey by The National Employment Savings Trust last year found that more than eight in ten of us admit that we've spent money on something we've never used over a five-year period. Currently, contactless card payments are limited to items costing less than £20. The fact is that most consumers don't need it made easier to spend money — and don't notice how many, regular small payments add up over a year to a biggish sum. For instance, a daily pre-work cup of coffee, costing on average £2.85, means a total of more than £680 a year. According to the card company Visa Contactless, most consumers do not factor in the mounting cost of these small purchases into their everyday budgets. And our own unrestrained spending when we go contactless is not the only worry — there is the problem of fraud. Of course, banks impose safety precautions — for example, no more than four or five purchases can be made in a row before a PIN is asked for by a shop assistant.

Indeed, according to the UK Cards Association, fraud due to contactless cards was just 0.016 per cent of total credit card fraud last year.

But with new-fangled systems such as high-tech woollen mitts, criminals will inevitably find new ways to crack the system. Last month, an expert studying the issue at Newcastle University discovered a major flaw in Visa's contactless debit cards. It was found that thieves had been able to bypass the £20 spending limit to steal up to £999,999.99 so long as it was in a foreign currency. What's more, there was another major flaw. Criminals, it was discovered, could 'hack' cards through people's pockets or wallets using a home-made remote scanner device. Such devices read the cards wirelessly, just like a shop terminal itself does, and might thus enable criminals to take payments from them.

Researchers from Surrey University, in the meantime, have warned that fraudsters with scanners may be able to read people's cards from as much as 80cm away. As a result, technology companies are developing 'shielding' devices to protect contactless chips in shoppers' wallets, pockets and purses. These so-called 'card guards' — available online for between £3 and £7 — are thin plastic wallets with metal shielding that slip over a contactless card to prevent its signals being read.

Meanwhile, the anti-computer virus firm Norton is developing a special design of trousers with inbuilt shielding material. A far cheaper, albeit less stylish solution is suggested by Mark Roberti, the editor of the contactless-industry publication, RFID Journal: wrapping credit cards in tin foil. In theory, this should help to protect them from being read by fraudsters — though you will have to unwrap the card before paying for an item. For its part, MasterCard has launched a biometric contact-less payment card with a fingerprint sensor that allows users to pay for items without having to tap in their PIN. The cardholder's fingerprint is stored on the card, and payments can only be made when they place their finger on a shop terminal.

The developers are so confident with this technology that they say there will be no need for the security precaution of limiting the number of transactions before a more traditional check is made on the shopper's identity. Also, the technology company Bionym is working with the Royal Bank of Canada to test a contactless-payment wristband, which uses the wearer's unique cardiac rhythm as authentication for payments. However, for those of us who remain deeply suspicious of contactless cards, it seems we are being left behind by the inexorable march of new technology.

Most banks, such as Lloyds, Halifax, Bank of Scotland HSBC and RBS/NatWest are issuing the new technology to customers whenever they renew their debit and credit cards, regardless of whether they actually want to go contactless. One firm, though, is bucking the trend — Capital One says it will issue non-contactless cards for customers who are distrustful of the new technology. And Nationwide will offer a facility next year where customers can opt in, or out.

It may indeed seem rather Canute-like to try to keep this tidal wave of change back. But if you refuse to adopt it, as well as being protected from the ingenious wiles of contactless-thieves, you will also stay safe from the most financially dangerous user of this new technology — your big-spending self!