



Beyond the contagion concept

How does behaviour spread?

John Drury explains the popularity of the contagion concept and proposes alternative explanations for the spread of behaviour

Contagion' is a popular metaphor for the *spread of behaviour*. Simply put, it is the idea that behaviour spreads automatically between people, like a disease. It comes from the Latin roots '*con*' meaning 'together with' and '*tagere*' meaning 'to touch'. It conveys the idea that behaviours spread essentially through exposure or contact (whether literal or metaphorical).

If you do a search on Google Scholar you will see that research articles using the term 'contagion' can be found across multiple disciplines, including marketing,

public opinion research, sociology, animal behaviour studies, economics and public health, as well as psychology. The 'contagion' concept has been applied to numerous topics, from simple behaviours such as yawning, scratching, smiling, clapping and anxiety, to complex social phenomena, including obesity, suicide, market 'panic' and rioting.

In this article, I am going to try to persuade you that the 'contagion' concept conceals more than it reveals, and that it is misleading in important ways. Despite its popularity and pervasiveness, I shall suggest that there are better ways to conceptualise and explain behavioural spread.

was the fatal shooting by a police firearms unit of local resident Mark Duggan in Tottenham, London on Thursday, 4 August. A protest over lack of police communication on the following Saturday became the first of the riots. Over the next few days, 66 Local Authority Areas experienced 141 incidents of 'disorder'. The rioting first spread across north London, then extended to other parts of London, and finally spread to other parts of the country, including Birmingham, Manchester and Bristol. In news media accounts, this spread was described as 'copy-cat' rioting, while academic commentators called it 'contagion'.

Crowd behaviour

Understanding the first use of the concept of contagion in early psychology is instructive. It occurred in late nineteenth-century France, when 'crowd science' emerged as a response to perceived social problems of urbanisation and unrest. Crowd science was an attempt not just to explain but also to combat the 'problem' of the crowd. The early crowd

Signposts



crowd behaviour, riots, social identity theory

The 2011 English riots

We'll begin with a look at some recent riots. The precipitating incident for the 2011 riots

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scientists utilised ideas from medicine, such as delirium, feverishness and contagion. They defined contagion as a process of uncritical social influence — anyone in a crowd was said to be susceptible since they thought that people become mindless in crowds.

So here we start to see part of the problem with the contagion concept. Was the term 'contagion' chosen over words such as 'spread', 'transmission' or 'influence' for a reason? Unlike these other terms, it *pathologises*: it likens behavioural spread to an illness, and it thereby suggests that it is something bad. It also serves to imply that spread is unthinking, automatic, passive and primitive. The concept of contagion when applied to behaviour is not neutral, therefore. It was developed as a weapon in the war on the crowd.

What's the evidence?

You might say, 'Well, I can see the problem with the *term* contagion, but what is the evidence against the concept itself?' More recent crowd psychologists were the first to identify a fatal flaw. They argued that contagion cannot explain why some people do not succumb to emotions sweeping through a crowd. Contagion also can't explain why some behaviours spread and not others.

In his study of the St Pauls riot of 1980, Steve Reicher (1984) found that people joined in when someone threw a stone at police but not when someone threw a stone at a bus. There seem to be boundaries to behavioural spread, and these boundaries are linked to group memberships and the shared identities of people in those groups.

But what about simple responses? Emotional contagion is usually considered a primitive process, but here too there is evidence of group boundaries on influences. For example, Job van der Schalk and colleagues (2011) manipulated perceived identity of a 'model' and measured the responses in participants' facial muscles. They found that ingroup anger and fear displays were mimicked more than outgroup displays of these emotions.

What makes some people join in with anti-police riots when others don't?



Figure 1 The image on the left shows the 'target' video, which was shown to participants. In the right-hand image, a participant scratches while watching the target video

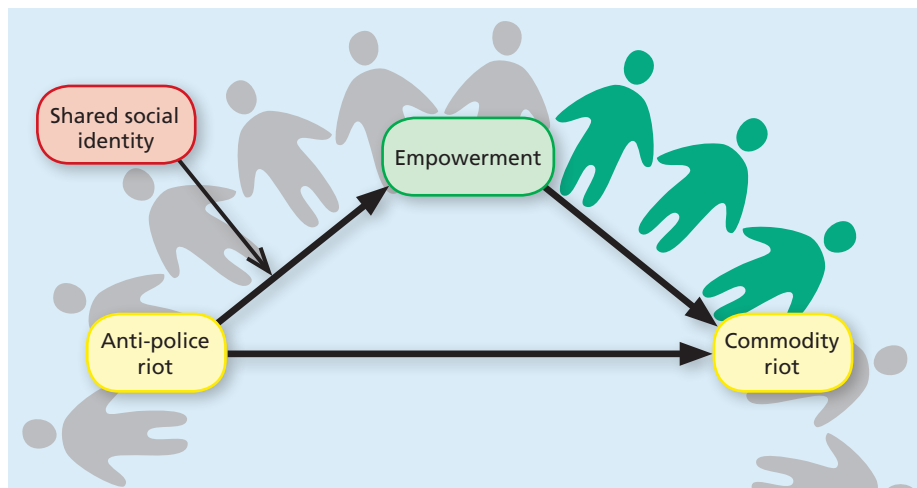
A social identity hypothesis

These examples from both riots and studies of basic behaviours suggest a social identity hypothesis. Social identity is the sense of who we are, derived from our group membership. According to social identity theory, we each have multiple identities, not just a single personal one. Behaviours only spread when the participant *identifies with* the source — that is, when he/she sees the source as in the same group as self. In this account, while 'touch' may be necessary, it is not sufficient for spread. The extent to which the participant sees the source as *relevant to self* is the real

mechanism of spread. If the source is judged irrelevant, that source will be discounted and influence will not occur.

My research team and I have a number of laboratory experimental studies in progress that have begun to test this social identity hypothesis. In one study, we exposed students to a video of someone scratching. We randomly allocated participants into two groups: 'superordinate' (in which they shared group membership with the person in the video) and 'subordinate' (in which the person in the video was in a different group than them). See Figure 1.





ONLY THOSE WHO SHARED AN ANTI-POLICE IDENTITY WOULD FEEL EMPOWERED BY THE ANTI-POLICE RIOT

Figure 2 A diagram of the relationship between types of riot and the forms of spread. The arrows indicate direction of influence: anti-police riot influences both empowerment and commodity riot, and empowerment also influences commodity riot. Shared social identity influences the relationship between anti-police riot and empowerment

As expected, when participants were ingroup to the target, they scratched themselves more often, and were more likely to report feeling itchy, than when they were outgroup. Ingroup condition people also rated the target as more self-relevant, and self-relevance predicted feeling itchy which predicted the number of scratches.

Social identity processes in the 2011 English riots

When we examined behavioural spread (contagion) in the 2011 English riots, we found that social identity was involved, but also collective empowerment. In this research, we drew on a very large archive dataset, including videos, news articles, crime

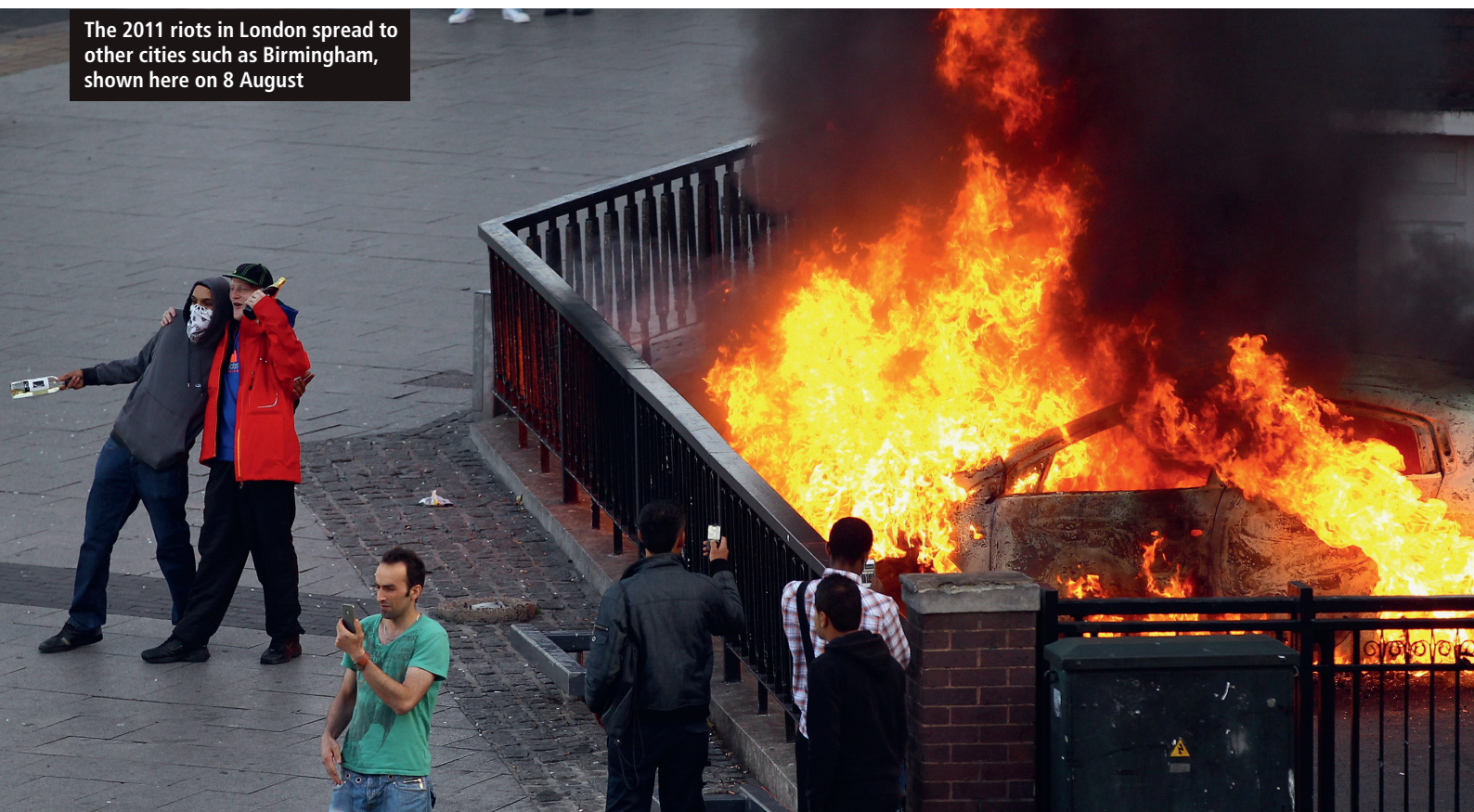
data and interviews carried out as part of the *Guardian/LSE Reading the Riots* project. In contrast to the 'copycat' idea, there were different *types* of riot. Rather than a simple mirroring process of spread, these different types of riot seemed to be related in a sequence. In this way, rioting against police seemed to be the precondition for rioting involving extensive looting. This suggested a first hypothesis relating to sequence (see yellow boxes in Figure 2).

A second hypothesis addressed the mechanism for this transition between different forms of rioting. The hypothesis was that an anti-police riot *empowers* both those involved and others outside the riot (see Figure 2, green box). In the minds of participants and observers, seeing the police weakened or unable to respond can create a sense of empowerment — particularly

The 2011 English riots started as anti-police but turned into commodity riots



The 2011 riots in London spread to other cities such as Birmingham, shown here on 8 August



for those activities which reflect long-held values and desires but which are normally not allowed. Indeed, when we looked at the interviews of those involved in the initial conflict with the police in Tottenham, where the police appeared unable to prevent a police car from being set alight, empowerment was a clear theme in their accounts. They talked about being 'in control' of their lives for the first time, in contrast to their everyday experience of being controlled by the police.

Lots of people saw the burning police car in Tottenham, both on the news and through social media. But not everyone felt empowered by this, of course, and not everyone joined in or took part in the commodity riots in the nearby retail parks. This again shows why the concept of 'contagion' is so limited, and it points to the need for a social identity analysis.

Therefore, the third hypothesis was that only those who shared an anti-police identity with the rioters would feel empowered by the anti-police riot (Figure 2, red box). In line with this, in the interviews we found statements from people who saw the images from anti-police riots and said they felt encouraged, emboldened and even delighted by what they saw. But these were people who

References



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were already hostile to the police: they said they felt they had been badly treated by the police and the government for a long time — including racist 'stop and search' procedures and cuts to services — and they welcomed the opportunity for revenge.

In summary, therefore, the 2011 English riots spread not through a simple process of 'copy-cat' or contagion but through a more complex process of empowerment and shared identification.

Conclusion

Behavioural spread is important in the case of both simple behaviours, such as yawning and smiling, as well as more complex social phenomena, such as rioting. But

the 'contagion' concept cannot adequately explain many forms of spread, since they often display evidence of social group boundaries. We need a different terminology. Let's refer to 'spread', 'influence' and 'transmission', instead of 'contagion', to avoid pathologising social influence and group phenomena. If we understand behavioural spread in terms of shared social identity and self-relevance, this would bring spread phenomena into line with contemporary explanations of other forms of influence in social psychology, including conformity, minority influence and leadership. For more complex spread, we also need to refer to other factors such as changing group relations and empowerment.

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