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Communication on rhino poaching: Precautionary lessons about backfires and boomerangs

Rhinoceros (rhino) poaching has become a dominant topic in wildlife management in southern Africa since the poacher onslaught started in 2008.¹ As social concerns about rhino poaching have grown, so have various forms of persuasive communication in attempts to curb, discourage, stigmatise and stop rhino poaching as well as discourage end users. Governmental and conservation agencies, non-governmental organisations (NGOs) dedicated to stopping rhino poaching, international organisations, documentary film-makers, television producers, and international figures like Prince William and celebrities like Jackie Chan, DJ Fresh and South African football star Maps Maponyane² have tried many different methods to persuade end users, local communities or intermediaries that killing rhinos for their horns is wrong.

How effective are such initiatives, particularly given that the demand for rhino horn shows little sign of abating and poached carcasses increased to over 1000 in South Africa by 2014? A reasonable response would be that such campaigns are usually ineffective particularly given that campaigns seldom consider outcomes such as changing or maintaining changed attitudes, or, even more difficult, changed behaviours.³⁻⁶ The inducements driving rhino poaching⁷ are so strong that it may be that no appeals are likely to deter offenders. Traditions of trade, inelasticity of demand and high profit potential may provide large enough incentives to override any persuasive appeals or threats⁸, particularly when past social injustices may give an added sense of justification to poachers⁷.

Here, however, we consider another possibility: that some communications about rhino poaching are counter-productive. To do this, we examine the literature on what has previously⁹⁻¹² been characterised as unintended effects or backfire or boomerang communications¹³, in diverse areas such as health communications⁹, political advertising¹⁰, commercial advertising¹¹, or age warnings about unsuitable media content¹². Here we look at how some of these lessons may apply to past communications that may help shape future communications about rhino poaching. These lessons may also apply to other areas of social concern where persuasive communication is crucial.

First, we give a brief summary of four theoretical frameworks of problematic or ‘backfire’ communications, considering the implications for communications around rhino conservation and conservation more generally. These four frameworks – reactance theory, descriptive norms and injunctive norms, mis-framing or cultural misreading, and ‘loose lips’ – may overlap, but they provide a useful checklist of communication traps and suggest better ideals for communication.

Reactance theory – wildlife officials and local communities

The theorist who has considered a directly negative reaction to persuasion most carefully in a series of articles and books is Jack Brehm.¹⁴⁻¹⁷ Brehm’s reactance theory argues that forceful arguments that limit our freedom to choose and behave as we like, or as we have in the past, may produce a counter-action, or resistance. This is particularly true if a powerful person is making the argument, in which case we are also likely to view the person negatively. Brehm argues that reactance may set in to threats by implication, so that what seems to be a simple statement in a familial or organisational setting may lead to reactions because of the larger power and relational dynamics.¹⁵

Brehm’s work overlaps with what is known as ‘forbidden fruit’ dynamics.¹⁸ The best-studied examples are those on the effects of age bans and censorship on computer games or films. Many studies have shown that attempted bans make films, television programmes, or computer games more appealing for many consumers.^{12,18,19}

What does Brehm’s work suggest for communication about rhino conservation, in particular for communications with communities around the Kruger National Park? First, threats of harsh consequences for poachers, particularly emanating from powerful outsiders, are likely to lead to resistance, particularly in communities in which many people may have strong historical reasons for feeling aggrieved by the Kruger National Park, or have memories of a racialised military struggle in the apartheid era.^{20,21} If communications about rhino poaching are seen as restricting and limiting freedoms, they are likely to be resisted and be counter-productive.

There is another area where reactance theory may explain reactions. Furious moral denunciations of poachers or angry billboard slogans like ‘We don’t shoot rhinos, we shoot poachers’, risk racialising the issue and alienating communities. When EFF leader Julius Malema accuses white people of caring more for rhinos than for black people, many black South Africans may share his view because of the vehemence of anti-poacher anger that may seem racially based.²² Some of the protests at the Kruger National Park entry gates and displays at funerals of poachers in villages abutting the Park also suggest that official attempts to demonise poachers may rebound and Hübschle points to ways in which poachers may enjoy a ‘Robin Hood’ status in their communities.²¹

Brehm’s work suggests that communication about rhino poaching should come from non-threatening insiders, that it should stress positive values of opportunity and choice linked to the survival of the rhino and wildlife tourism. Such messages should suggest that, in opposition, the choice of rhino poaching is limiting and self-defeating.

Communications that downplay threats and powerful messages from authority figures or symbolic violence on social media are also likely to lead to less concern in scholarly analysis about what has been characterised as the ‘rhinification of security’ or green violence.²³⁻²⁵



Descriptive norms and injunctive norms – media coverage of a crisis

One early concern for officials was that increased coverage of rhino poaching seemed perversely related to increased poaching – to the point that it almost felt as though the coverage was helping to drive poaching. Not surprisingly, senior staff at Kruger National Park in South Africa have come to see communication about rhino poaching as inherently problematic. How could this happen?

Studies of the health industry may help provide answers. In a major study of the effects of a billion dollar anti-drug campaign in the USA, researchers concluded with some surprise that the only significant statistical finding to emerge was that those exposed to the campaign were more likely to use drugs than those that had not been exposed.²⁶ Similar disconcerting results have been found in studies of campaigns to reduce cigarette smoking²⁷, drinking at colleges²⁸ and drug usage²⁶.

Why would this be? Cialdini²⁹, in looking at a famous advertisement decrying pollution in the USA, argues that the advertisement undermines itself by showing how commonplace littering and pollution are. The descriptive norm (many people pollute) overcomes the injunctive norm (you shouldn't pollute). When teenagers are told not to do drugs, or drink alcohol, the main effect may be to suggest, particularly to those who are behaving better than the norm described, that many people are doing drugs or drinking, and thus reduce the inhibition on such actions. Crucially, one study suggests that unless the descriptive norms are complemented by appropriate injunctive norms, boomerang effects are likely.³⁰

In looking at news communications about rhino poaching, it is clear that many early news reports stressed the increasing numbers of rhino killed and the value of the horn. When it was also clear that relatively few poachers had been caught, the descriptive impression would have been to encourage rhino poaching, particularly given the publicity about the huge prices paid for rhino horn. Few of these news reports expressly condemned poaching or showed alternative positive role models. Concerns about the effects of ongoing coverage of losses of rhino and increasing poaching led to the South African Department of Environmental Affairs releasing figures on rhino poaching on only a quarterly basis.

Media reporting on rhino poaching may have been more responsibly undertaken and done more to discourage poachers had it pointed out the relatively low prices paid to local poachers, or shown an imprisoned poacher and the costs to a grieving family. So, while South African and international media may have assumed their readers would have reacted to reports of poaching negatively, it may be that inadvertent environmental media framing effects helped contribute to publicising and increasing poaching.³¹

When it comes to campaigns to discourage rhino poaching through persuasion, threats or warnings of dire consequences need to be carefully considered. Ideally, such campaigns should align descriptive and injunctive norms by, for example, showing positive role models in law enforcement as valued and heroic figures, or showing the benefits of not poaching. If there is to be a negative tactic, it should perhaps be linked to showing the consequences for poachers who have been caught, by letting them discuss their unhappy experience of imprisonment and the distance from their families.

While the exact number of deaths from poaching is unknown, analysing how devastating deaths, serious injuries, and imprisonment have been to particular communities could change descriptive norms. If communities see poachers and poaching leading to overall hardship for a community, it may be easier to discourage recruitment there. It may also be possible to contrast the hardship and paltry rewards of the 'foot soldiers' to the large, relatively risk-free rewards gained by others, thereby driving a wedge between the community and the recruits and the criminal networks that profit from them.³²

Mis-readings and counter-readings – NGOs and messages about rhino horn

People of different genders, classes, ages, cultures and religious convictions may read and react to the same message very differently – a fact which impacts strongly on communication on rhino poaching. Many examples from health communication show how different or counter-readings can, for example, lead to young pregnant women taking up smoking because the threat that smoking would lead to them having smaller babies was perceived by them as a health benefit.³³

In the case of rhino poaching, this is a problem particularly faced by NGOs in the way that they phrase their appeals for funds. Many appeals look at the dangers to the survival of rhinos as a species. A local NGO appeals for funds in the local mall with the message: 'Don't let the big 5 become the big 4!' A South African T-shirt has the image of a rhino merging with that of a dodo, warning of the possible fate of extinction. These warnings of extinction may seem to work to discourage poaching, but in many cases they have the opposite effect.

Shelley³² points out that in Vietnamese gift culture – a major use of rhino horn – the very rarity of the rhino horn increases the value of the gift and makes it more desirable and valued. Empirical evidence on the value of animals put on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) endangered lists reinforces the point: announcing that something is endangered or vulnerable to extinction increases its rarity value and thus makes it more likely that its value will increase and gives poachers an added inducement.³⁴ It may even be that some criminal syndicates see extinction as increasing the value of their stockpile.³⁵

We thus have the tension between a message that may be effective in fundraising, yet has the unintended result of increasing the value of – and thus the risk to – the animal the fundraisers are trying to protect. What well-meaning environmentally conscious audiences perceive locally or internationally may be completely different from what end users perceive. In the rhino case, the message heard across the illegal supply chain may be significantly different from what communicators intended. It might be much better for rhino conservation, and much more discouraging for international speculators, to convey the message that there is a sustainable rhino population with little or no risk of extinction.

These kinds of moral panic attacks from NGOs can have unintended consequences more broadly in conservation areas. Media messages wrongly portraying widespread declines in Zimbabwean wildlife resulted in dis-investment in wildlife projects, risking the creation of a self-fulfilling prophecy.³¹

'Loose lips may sink ships' – official communication and links with the public

The old World War II phrase warning against unguarded talk is the obvious area for tactical focus in communications. Ill-timed information about the whereabouts of rhino, or new security measures, or even about success in capturing criminals, may give poachers crucial information that makes their task easier or allows them to anticipate and counter defences. During 2014, SANParks moved rhinos from poaching hotspots to areas of relative safety in the Kruger National Park. Local South African media attended the first captures and 126 media outputs resulted with the key message 'Kruger evacuating rhinos'. Poaching rates doubled in the following 4 weeks in those poaching hotspots. Foreign media attended the second captures and 80 media outputs resulted with the key message 'Integrated approaches to protect rhinos'. Poaching rates stayed the same in those areas and in the rest of the Park. Subsequent arrests confirmed that poachers in the first case decided to attack before all the rhinos were removed from the more vulnerable areas.

There are other examples in which technological hubris has contributed to authorities giving too much information to criminals, thus allowing them to counteract measures. One example from KwaZulu-Natal is where radio transmitters were inserted into rhino horns and local communities were shown the devices and warned that any poachers would be tracked



and punished. Soon, rhinos were shot, but tracking of the horns was not possible. When one poacher was caught with a roll of tin foil in his backpack, authorities realised that poachers had simply covered the poached horns in tin foil, thus disabling the tracking device.³⁶

In other cases, the desire of fundraisers or local or international NGOs to have their efforts publicised or given media attention may make that very intervention less successful. For example, a group raising funding for, hypothetically, dogs to be dropped by helicopter or helium-powered drones, or rhinos wearing devices that record sound, will, in publicising the new intervention, give poachers time to consider how best to react.

In many cases, it will not be possible to stop fundraisers vaunting their particular contributions, but, in planning, care should be taken to ensure that any information released can be used strategically – perhaps by suggesting that the intervention may be more effective or more widespread than is the case, or by concealing complementary measures taken.

A similar problem arises when we look at successes in capturing rhino smuggling kingpins or in closing a particular smuggling route. The capture of a Mr Big may encourage a larger number of would-be Mr Bigs to try to take advantage. Celebrating the closing of one smuggling route may help smugglers find better ones. This is a common feature in crime networks – resilient crime networks become more robust once they recover from a disruption and then become significantly more difficult to destroy.³⁷

This problem is exacerbated when we consider that in many cases tactical on the ground information or planning may be compromised by internal betrayal where officials collude with poachers or may themselves be poachers. The problem of internal collaboration with poachers raises complex questions on how to identify and counter possible internal help for poachers. This situation, however, may also provide opportunities for authorities to spread disruptive information.

In terms of dealing with internal communications, the problem of identifying and isolating criminal behaviour within relevant organisations raises complex issues of labour relations, ethics, morale building and team-building more generally.

Conclusion

Our attempt to provide a framework for an analysis of risks associated with communication about rhino poaching is largely retrospective and theoretical. It should, however, help identify problem areas for particular sectors and other areas of public concern. How can this framework help in formulating messages going forward for various role-players?

Authorities could do well to define priorities for their strategic communications and focus on communication with stakeholders that has a high impact on achieving objectives of rhino conservation. Authorities may even gain further by recognising the existing nature of their relationship with priority stakeholders and vary the tone of messages accordingly to increase awareness, change attitudes or change behaviour. This awareness could help shape press releases, engagements with non-government organisations and journalists, and any other kind of communication about rhino poaching.

News media should recognise that there is no such thing as simply reporting on rhino poaching and discouraging it by looking at the number of rhinos killed, the value of the horns, and the number of poachers captured or killed. The dangers of failure or the costs of success for communities were notably lacking in most early accounts. Authorities should do more to shape the larger narrative.

Many NGOs have helped raise awareness and concern about poaching, but they too need to consider the costs of raising moral panics and the dangers of how their messages will be understood outside of an original audience of potential funders. Nor should they imagine that only sympathetic figures are reading or hearing their messages and plans.

Finally, authorities have to consider the costs and benefits of transparency and the tactical use of when and how to deploy information about their intentions and successes.

While rhino poaching poses its own particular ‘wicked’ problem for effective communication, the relevance of these pitfalls is clear for communicators and journalists more widely. Effective persuasion demands expertise and sociological and anthropological sophistication.

References

1. Knight M. African rhino specialist group report. *Pachyderm*. 2013(53):7–24.
2. Celebs band together for rhinos. *The Citizen*. 2016 May 05 [cited 2017 Feb 20]. Available from: <http://citizen.co.za/news/news-national/1101441/speak-up-to-stop-rhino-poaching/>
3. Bandura A. *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice Hall; 1986.
4. Ajzen I. The theory of planned behavior. *Organ Behav Hum Decis Process*. 1991;50(2):179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
5. Prochaska JO. Transtheoretical model of behavior change. In: Gellman M, Turner JR, editors. *Encyclopedia of behavioral medicine*: New York: Springer-Verlag; 2013. p. 1997–2000.
6. Zanna MP, Rempel JK. Attitudes: A new look at an old concept. In: Bar-Tal D, Kruglanski AW, editors. *The social psychology of knowledge*. Cambridge, UK: Cambridge University Press; 1988. p. 315–334.
7. Conrad K. Trade bans: A perfect storm for poaching. *Tropical Conserv Sci*. 2012;5(3):245–254. <https://doi.org/10.1177/194008291200500302>
8. Ferreira SM, Pfab M, Knight M. Management strategies to curb rhino poaching: Alternative options using a cost-benefit approach. *S Afr J Sci*. 2014;110(5–6), Art. #2012-0055, 8 pages. <https://doi.org/10.1590/sajs.2014/20120055>
9. Crano WD, Burgoon M. *Mass media and drug prevention: Classic and contemporary theories and research*. Mahwah, NJ: Lawrence Erlbaum Associates; 2002.
10. King JD, McConnell JB. The effect of negative campaign advertising on vote choice: The mediating influence of gender. *Soc Sci Q*. 2003;84(4):843–857. <https://doi.org/10.1046/j.0038-4941.2003.08404012.x>
11. Petrova PK, Cialdini RB. Fluency of consumption imagery and the backfire effects of imagery appeals. *J Consumer Res*. 2005;32(3):442–452. <https://doi.org/10.1086/497556>
12. Bushman BJ, Cantor J. Media ratings for violence and sex: Implications for policymakers and parents. *Am Psychologist*. 2003;58(2):130–141. <https://doi.org/10.1037/0003-066X.58.2.130>
13. Byrne S, Hart PS. The boomerang effect: A synthesis of findings and a preliminary theoretical framework. *Ann Int Commun Assoc*. 2009;33(1):3–37. <https://doi.org/10.1080/23808985.2009.11679083>
14. Brehm JW. *A theory of psychological reactance*. New York: Academic Press; 1966.
15. Brehm JW. Psychological reactance: Theory and applications. In: Srull TK, editor. *NA – Advances in Consumer Research*. Volume 16. Provo, UT: Association for Consumer Research; 1989. p. 72–75.
16. Brehm SS, Brehm JW. *Psychological reactance: A theory of freedom and control*. New York: Academic Press; 2013.
17. Miron AM, Brehm JW. Reactance theory – 40 years later. *Zeitschrift für Sozialpsychologie*. 2006;37(1):9–18. <https://doi.org/10.1024/0044-3514.37.1.9>
18. Bushman BJ, Stack AD. Forbidden fruit versus tainted fruit: Effects of warning labels on attraction to television violence. *J Exp Psychol Appl*. 1996;2(3):207–226. <https://doi.org/10.1037/1076-898X.2.3.207>
19. Bijvank MN, Konijn EA, Bushman BJ, Roelofsma PH. Age and violent-content labels make video games forbidden fruits for youth. *Pediatrics*. 2009;123(3):870–876. <https://doi.org/10.1542/peds.2008-0601>
20. Van Heerden P. Faces of Africa – Charlie ‘Nyempere’ Nkuna: Protector of Kruger National Park [video on the Internet]. 2018 March 13 [cited 2018 Sep 13]. Available from: https://www.youtube.com/watch?v=CkM_DRqqqfA
21. Hübschle AM. The social economy of rhino poaching: Of economic freedom fighters, professional hunters and marginalized local people. *Curr Sociol*. 2017;65(3):427–447. <https://doi.org/10.1177/0011392116673210>



22. Malema J. Why do white people despise blacks? Times Live. 2016 January 10. Available from: <https://www.timeslive.co.za/sunday-times/opinion-and-analysis/2016-01-10-why-do-white-people-despise-blacks/>
23. Lunstrum E. Green militarization: Anti-poaching efforts and the spatial contours of Kruger National Park. *Ann Assoc Am Geogr.* 2014;104(4):816–832. <https://doi.org/10.1080/00045608.2014.912545>
24. Massé F, Lunstrum E. Accumulation by securitization: Commercial poaching, neoliberal conservation, and the creation of new wildlife frontiers. *Geoforum.* 2016;69:227–237. <https://doi.org/10.1016/j.geoforum.2015.03.005>
25. Humphreys J, Smith M. The 'rhinofication' of South African security. *Int Affairs.* 2014;90(4):795–818. <https://doi.org/10.1111/1468-2346.12141>
26. Hornik R, Jacobsohn L, Orwin R, Piesse A, Kalton G. Effects of the national youth anti-drug media campaign on youths. *Am J Public Health.* 2008;98(12):2229–2236. <https://doi.org/10.2105/AJPH.2007.125849>
27. Wakefield M, Terry-McElrath Y, Emery S, Saffer H, Chaloupka FJ, Szczypka G, et al. Effect of televised, tobacco company-funded smoking prevention advertising on youth smoking-related beliefs, intentions, and behavior. *Am J Public Health.* 2006;96(12):2154–2160. <https://doi.org/10.2105/AJPH.2005.083352>
28. Wechsler H, Nelson TE, Lee JE, Seibring M, Lewis C, Keeling RP. Perception and reality: A national evaluation of social norms marketing interventions to reduce college students' heavy alcohol use. *J Stud Alcohol.* 2003;64(4):484–494. <https://doi.org/10.15288/jsa.2003.64.484>
29. Cialdini RB. Crafting normative messages to protect the environment. *Curr Directions Psychol Sci.* 2003;12(4):105–109. <https://doi.org/10.1111/1467-8721.01242>
30. Schultz PW, Nolan JM, Cialdini RB, Goldstein NJ, Griskevicius V. The constructive, destructive, and reconstructive power of social norms. *Psychol Sci.* 2007;18(5):429–434. <https://doi.org/10.1111/j.1467-9280.2007.01917.x>
31. Gandiwa E, Sprangers S, Van Bommel S, Heitkönig IM, Leeuwis C, Prins HH. Spill-over effect in media framing: Representations of wildlife conservation in Zimbabwean and international media, 1989–2010. *J Nature Conserv.* 2014;22(5):413–423. <https://doi.org/10.1016/j.jnc.2014.03.009>
32. Shelley L. Convergence of the rhino horn trade with other criminal activity [document on the Internet]. c2016 [cited 2018 Sep 13]. Available from: <http://defsec.csir.co.za/wp-content/uploads/2016/05/1.-Dr-Louise-Shelley-Convergence-of-Illicit-Actors-and-Flows.pdf>
33. Dennis S. Golden chocolate olive tobacco packaging meets the smoker you thought you knew: The rational agent and new cigarette packaging legislation in Australia. *Contemp Drug Problems.* 2013;40:71–97. <https://doi.org/10.1177/009145091304000105>
34. Sand PH. Enforcing CITES: The rise and fall of trade sanctions. *Rev Eur Comp Int Environ Law.* 2013;22(3):251–263. <https://doi.org/10.1111/reel.12037>
35. Bulte EH, Mason CF, Horan RD. Betting on extinction: Endangered species and speculation. *Land Econ.* 2003;79(4):460–471. <https://doi.org/10.2307/3147293>
36. Lottering B. Interview with Ian Glenn 2015.
37. Ayling J. What sustains wildlife crime? Rhino horn trading and the resilience of criminal networks. *J Int Wildlife Law Policy.* 2013;16(1):57–80. <https://doi.org/10.1080/13880292.2013.764776>