POWERS OF PERSUASION?

Conservation Communications, Behavioural Change and Reducing Demand for Illegal Wildlife Products

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*I*n recent years, the conservation sector has begun to embrace the powerful potential for behavioural science to help change wildlife product consumer choice (TRAFFIC, 2012). A common question arising is: "How can we change people's behaviour so they just care about [threatened] animals and stop consuming their products?" This suggests a dichotomy between how the sector is perceiving the opportunity and what it is in reality. In order to influence buyer behaviour, conservationists need to understand what consumers seek and work with that—not focus on what they don't and try to change it[1] (TRAFFIC, 2016a; TRAFFIC, 2016b; Hesselink, 2016).

This paper aims to promote and support reflection around such considerations, amongst those designing communications aiming to reduce demand for illegal wildlife products. It also seeks to introduce some of the core behavioural science concepts and theories that could form critical points of reference when creating messages and approaches to change consumer choice. In this manner it builds upon the dialogue between those in the demand reduction Community of Practice at the Changing Behaviour to Reduce Demand for Illegal Wildlife Products *workshop (Hong Kong, 7–9 March 2016)[2].*

Orientation and Overview

Behavioural science is a diverse discipline, encompassing aspects of sociology, psychology, economics, media, marketing and communications, amongst others. "Hybrid" fields informing insight into the determinants of behaviour and approaches to alter it, include social psychology, behavioural economics and social marketing. Application of concepts and strategic approaches from these fields is relatively new to conservation science (e.g. Veríssimo, 2013; Bennett and Roth, 2015) but due to the urgency of the poaching crisis facing some species, need to be understood and applied rapidly. Attempts to tackle wildlife trafficking and mitigate the markets driving it thus need to be exigent in their exploration of new areas of academic research and expert opinion (Zain, 2012). "Behavioural change" and "social marketing" are becoming commonplace terms in conservation parlance, but when assessed, current demand reduction communications rarely demonstrate adherence to relevant theories of change, benchmark criteria or quality assurance frameworks (Olmedo, 2015; Olmedo *et al.,* in prep.). What can be done to address this?

Relevant context for a response relates to consideration, from a behavioural science perspective, of two recent forces. The first: the strong political reaction to the poaching crisis, with government declarations of zero-tolerance and stockpile destruction. Since 2007, more than 226 tonnes of elephant ivory have been destroyed in 24 separate events in 20 countries (Milliken *et al.,* 2016). Media coverage has featured dramatic pictures of burning pyres, impassioned pleas and moving speeches appealing for the international community to help range States protect local livelihoods, national heritage and the global commons, by saving emblematic species such as elephants (Nuwer, 2016; Goldbaum, 2015). The second: the response of non-governmental organizations (NGOs) to the concern of their constituents, through communications calling for compassion for, for example, elephants and for consumers to stop buying, for example, ivory. Themes have included raising awareness that elephants die when their "teeth" are extracted and in great pain. Appeals emphasize thousands of animals affected annually, and reference the broader impacts of trafficking, plus punitive measures for those caught purchasing illegally.

Ultimately, these two forces combine to infer scarcity of raw material available to the market, whilst highlighting in a pervasive high-profile manner the threat of extinction to several species. Mass-media distribution of images of powerful animals, celebrating their majesty, highlighting their rarity, the dwindling supply of their products and appealing for empathy for their plight, is commonplace, but without consideration, from a behavioural science perspective, of the potential influence on the choices of wildlife consumers.

Changing Behaviour to Reduce Demand for Illegal Wildlife Products' workshop, Hong Kong, 7–9 March 2016.

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[1] https://www.iucn.org/commissions/commission-education-and-communication/our-work/love-not-loss; [2] Key aspects are considered further in the Wildlife Consumer Behaviour Change Toolkit (www.changewildlifeconsumers.org)

Research insight suggests some people are motivated to acquire wildlife products specifically because they are rare or precious (TRAFFIC, 2013; Kennaugh, 2016) and likely to hold or potentially increase in value as species become scarcer. Some people may see the illegal status of goods as making them more desirable, providing a perverse "social proof" that they are above the law. What if pictures of powerful animals encourage some people to consume products from them, to imbue such attributes/embody their virtues? And why should people care about animals with which they have little, if any, direct contact? What sort of communications should the conservation sector issue to reduce demand for their products then?

This paper considers such questions, whilst introducing some aspects of behavioural science that could help guide, shape and inform an impactful response.

Meaning and the Most Effective Mechanisms for Transformative, not Transient, Change

To provide a common foundation for other aspects of this paper, it is worth clarifying the scope and meaning first. Much recent discourse has been devoted to definitions of demand reduction. While there are clear frames of reference in relation to illicit drug consumption or economic trends, less are evident in conservation. For the purpose of this paper, demand reduction is considered a process and result; the process of reducing the expressed intent of potential consumers to purchase products, and the result of changing actual buyer behaviour: i.e. fewer illegal wildlife products bought.

To achieve this, an "enabling environment" of effective action to starve the supply of goods into the market (i.e. "supply reduction") is critical[3] (Burgess and Compton, 2013). Supply reduction encompasses effort to ensure effective enforcement in protected areas, range States and throughout the trade route (i.e. including in the market). The generation and provision of actionable information; technical support to identify major markets, trends and dynamics; and capacity building to enable relevant authorities to mitigate them, are all relevant. Most work to prevent poaching and trafficking aligns with this definition.

A strong legislative, regulatory and policy framework at international, regional and national levels, is also a requisite. Significant progress in this regard has occurred in recent years. Examples include the United Nations General Assembly (UNGA) Resolution 69/314, on "Tackling Illicit

Trafficking in Wildlife". This landmark Resolution, attained after three years of diplomatic effort, was co-sponsored by 86 countries and adopted by all 193 UN Member States in May 2015. Clause 7 "Urges Member States to engage actively in efforts to raise awareness about, and address the problems and risks associated with, the supply and transit of, and demand for, illegal wildlife products, and to reduce the demand using targeted strategies in order to influence consumer behaviour" (United Nations, 2015; TRAFFIC, 2016c).

Previous examples of successful demand reduction (Kitade and Toko, 2016) reinforce that a "Twin-Track Approach" is a key mechanism through which to deliver against such imperatives (TRAFFIC, 2016b). Track One involves measures to impose a societal behavioural control (e.g. policies, legislation and regulation) or restrict consumer choice (e.g. retailers removing offers for sale). Track Two involves messaging, issued by messengers influential with target audiences, to shape individual motivation.

Behaviour Change Communications (BCC) demonstrate delivery against Track Two in particular, by using messaging and messengers that focus on influencing the individual determinants of choice. In some instances, they use social marketing criteria[4]. Social and Behavioural Change Communications (SBCC) are slightly broader in scope, and consider the "socio-ecological" determinants of choice. In simple terms, they encompass aspects such as advocacy, public engagement and community mobilization, alongside strategic and targeted communications. They originated in the development and public health arena, where it has been recognized that "Individuals and their immediate social relationships are dependent on the larger structural and environmental systems: gender, power, culture, community, organization, political and economic environments" (Manoff Group, 2016). The Twin-Tracks of measures to impose societal control and messaging to shape individual motivation, can in this manner relate to all.

The "Five Step Process" used by TRAFFIC (see Fig. 1) provides a conceptual framework for developing Behaviour Change Communications and Social and Behavioural Change Communications. It has been endorsed by the Global Tiger Recovery Programme and the Rhino Working Group established under CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), as a valid approach for framing species-specific and systemic interventions (Burgess and Compton, 2013).
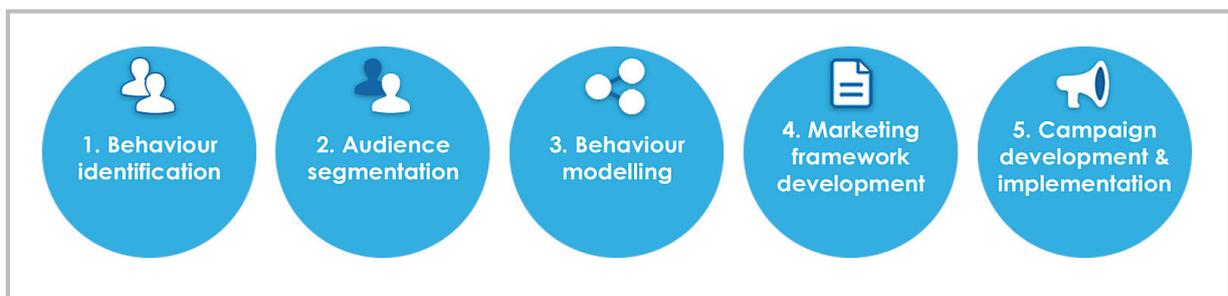

Fig. 1. The Five step process in relation to initiatives and communications to change behaviour.

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[3]https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/281289/london-wildlife-conference-declaration-140213.pdf;
[4]NSMC 'Benchmark Criteria': http://thensmc.com/sites/default/files/benchmark-criteria-090910.pdf.

In Steps One and Two, research is conducted to identify the specific behaviour (Step One) and audience (Step Two) the communications should target. A foundational understanding usually arises through market research, which assesses various facets of trade dynamics. Metrics can include those around poaching, trafficking and seizure data, plus availability (and ideally price) of product in virtual and physical markets. Time-series data illuminating trends over time can also identify predictors for emerging markets and perhaps some of the pressure points to terminate them.

Media articles and anecdotal observations may disproportionately highlight sensational extremes, but where rigour is applied (i.e. in high-quality investigative journalism), may also generate contextual insights. A sense of how products are sold, where, for what price, in which circumstances, to whom, why, etc., may help to identify candidate areas for further investigation, if being unlikely to set future research direction.

Knowledge arising from market research is what typically informs the focus for survey design in subsequent consumer research. Consumer research may include observational, derived/stated preference, or self-reported qualitative and quantitative components. It will seek to identify the socio-economic determinants and psycho-demographic drivers for desire and behaviour. A "benefits and barriers" style analysis may also be conducted to inform a social marketing approach. A mix of methods is instrumental in securing robust insights and statistically significant data.

In Step Three, findings from both market research and consumer research are cross-referenced against behavioural change models, frameworks, flow-diagrams, decision trees and theories of change. The conservation community is fortunate in that a large number of these have already been tried and tested in fields such as public health, international development and sustainable lifestyles. An extensive literature and body of evidence has thus emerged and is available to inform decision-making around the most effective messages, messengers and mechanisms to employ when influencing changes in consumer intention and behaviour.

Step Four will utilize these findings and references to behaviour change theory, to inform intervention design. A (social) marketing framework will map how communications can erode or undermine motivations for the "bad" behaviour, and/or highlight the utility of the "good" or preferred behavioural alternative. Step Five will implement all, and assess impact through an iterative approach (in line with e.g. World Bank, 2015). Findings inform adaptive management of messaging, messengers and mechanisms.

In this manner, the Five Step Process is intended to provide a framework for designing and delivering demand reduction interventions that achieve transformative, rather than transient, behavioural change impact.

Mixing Methods: the Mesh between Awareness-raising and Communications to Change Behaviour

Within this context, conservation communications that raise awareness of key issues, are distinguished from those explicitly designed to change behaviour. Conservation NGOs have a compelling rationale for issuing awareness-raising communications. Some may share shocking statistics and present visceral imagery to promote public action and raise resources to stop species extinction.

Awareness-raising communications are typically distributed using multiple mass-media channels. Communications to change behaviour tend to be more targeted, placed in locations frequented by the intended audience, distributed by those believed to be influential with them and employing an evidence-based and insight-led approach to messaging. Awareness-raising communications impart information and increase the "Knowledge" of those exposed to them. Behaviour Change Communications attempt to change "Attitudes" and ultimately "Practice". In this manner, they aim to move people through "stages" in a behaviour change journey (e.g. Valente *et al.*, 1998). This builds on several "composite models" of behavioural change, a notable example of which is the Trans-theoretical Model (Prochaska and Velicer, 1997).

This central tenet of behavioural science, also known as the "Stages of Change" Model, originates from the public health arena, and reinforces that behaviour change typically occurs incrementally through a series of steps in cognition and action. For example, through contemplation of stopping smoking or eating more healthily, preparation to do so mentally, and then commitment to action and doing so. Communications to change behaviour should relate to each of these steps. Relapse, reflection and refinement are recognized as integral to ensuring an enduring effect and lasting change in the longer term.

These sort of distinctions between awareness-raising and communications to change behaviour are not just definitional issues. Discussion with various experts in influencing consumer choice (TRAFFIC, 2012) has reinforced that while the conservation community has for many years relied on awareness-raising communications to protect species, the messaging used often speaks to the conservation community's values rather than those of wildlife consumers. The escalating threat to species in spite of such communications would support this assertion, and suggest that a fresh approach, grounded in consumer insight and behavioural science, is required (Burgess and Compton, 2013).

On the one hand, illegal wildlife product consumers may not be persuaded by concerns for animals often far removed from them. On the other, even if they purport to be, behavioural science would suggest it would not be wise to rely on them to behave "rationally" as a result; i.e. they may be aware of something, even claim to care strongly about it, but not necessarily act accordingly. Many reasons for this are suggested in the literature. Social psychologists identify factors such as "social choreography", peer pressure, "group-think", human "herd behaviour" and "mimicry" (e.g. Bond, 2014). In simple terms, if you perceive everybody else around you is still buying e.g. ivory, despite awareness that e.g. elephants are dying, the desire to conform could override the one to stop. An additional consideration is that communications highlighting everybody is buying e.g. ivory, risks providing proof that such "bad" behaviour cannot really carry much in the way of negative personal consequence anyway.

Behavioural economists distinguish real "Humans" from purely rational "Econs" (e.g. Hollis and Nell, 1975; Thaler and Sunstein, 2009) due to consumption choices incongruous with individual values, and associated aspects of irrationality (Ariely, 2008). Environmental psychologists

A shopkeeper in Hoi An, Viet Nam, explaining the power of Tigers in traditional medicine.

have a corollary in the "Value-Action Gap" (Kollmuss and Agyeman, 2002); i.e. a recognition that survey respondents often report caring about the planet and living a sustainable lifestyle to protect it, but do not then save an adequate amount of water, waste and energy to do so.

When TRAFFIC commissioned Ipsos to conduct rhinoceros horn consumer research in Viet Nam (TRAFFIC, 2013), qualitative responses included: "It's poachers who kill them not me, I only buy it"; and "If rhinos go extinct… it's normal, dinosaurs went extinct"; finally "[These animals] live in the forest, we have never see them… so, nothing impacts our life" [sic]. Respondents indicated those concerned about such animals would issue this type of messaging, implying that communications carrying conservation NGO branding risk being dismissed as a result. The Chi initiative[5] has developed its own brand and avoided overt association with conservation interests as a consequence.

More recent research by others—using a stated preference technique on the one hand, and regression analyses to test the integrity of self-reported opinion on the other—has revealed that while consumers may show support for legislation as a key mechanism to save threatened species, neither their awareness of the law nor their desire to avoid cruelty to animals is necessarily the most effective way to change buyer behaviour (Globescan/National Geographic, 2015; APCO/The Nature Conservancy, 2015).

From a behavioural science perspective, this may demonstrate Brehm's "Reactance Theory" (Brehm, 1966), when an individual's freedoms, i.e. the ability to buy ivory, is at risk of being restricted, they can react by defiantly "overcompensating" i.e. significantly increasing their motivation to reacquire the freedom. Thus it reinforces that a "Twin-Track Approach" to change is critical; i.e. that legislation and regulations must be accompanied by tailored, evidence-based, specific messaging in order to effect meaningful change.

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[5]*http://suctaichi.com/*

A further study identified that of those who said they would buy rhinoceros horn in China as a luxury good, 65.8% said they would buy it specifically because it was rare, with 31.6% indicating they would prefer Asian horn over African as it was even rarer. From a behavioural science perspective, this is aligned with Cialdini's Principle No. 6 "Scarcity" in "Principles of Persuasion" (Cialdini, 2006). Finally, "When questions about buying preferences were coupled with questions about rhinoceros population levels, the effect of population on potential buyers for rhinoceros horn as a luxury product, was not significant at any price." (Kennaugh, 2016), thus illustrating less interest around conservation concerns.

Overall, this reinforces the value of considering a behavioural science perspective, and of applying communications and approaches to change buyer behaviour in order to reduce the demand for illegal wildlife products. The extent to which conservation communications that raise awareness should be a precursor for, or supporter of, Behavioural Change Communications and Social and Behavioural Change Communications, needs to be explored further. By setting the tone around what is and is not socially acceptable, awareness-raising may hold the potential to influence the socio-ecological determinants of decision-making, but little is actually known about the extent to which it does so, and further investigation around the value of mixing methods to maximize impact, would be useful. In the environmental education sector, much research has been conducted on what, if anything, triggers the transition from awareness to action. Interesting debate has occurred around the "Attitude-Behaviour-Context" (ABC) model (Stern, 2000) and in relation to the "Behaviour-Impact Gap" (Csutora, 2012). The demand reduction Community of Practice may find these a useful orientation in the first instance.

Motivational Clusters, and More Impactful Messaging and Messengers

Broadly speaking, the available market research and consumer research influencing current demand reduction initiatives, suggests diverse socio-economic determinants and psycho-social drivers for consumer intention and behaviour. Looking at the evidence through a behavioural science lens (i.e. rather than one focused on either taxonomies, commodities or geographies), the "Motivational Clusters" set out in Fig. 2 are, to a greater or lesser extent, apparent.

The Clusters are not mutually exclusive; overlap is inherent and reflects the reality of what drives consumer choice. A primary motivation (e.g. Reputational) may relate to a secondary one (e.g. Social), and changes over time can be expected. Some Clusters may be umbrella headings (e.g. Emotional and Functional) for others (e.g. Reputational, Social and Recreational, and; Financial, Medicinal and Nutritional, respectively); but the latter may be a specific facet of the former that is useful to distinguish when designing highly targeted messaging.

Research suggests that each Cluster is evident to varying extents for different taxonomies, commodities and geographies. From a behavioural science perspective, considering the "Motivational Cluster" first, but localizing messaging according to those geographies, may help to

1	Cultural	Behaviours that represent the purchase or use of products in recognition or celebration of a specific facet of cultural heritage or tradition
2	Emotional	Behaviours that represent the purchase or use of products to fulfil hedonistic pleasure—i.e. for personal adornment or household display
3	Financial	Behaviours that represent the purchase or use of products for investment purposes, as a financial security strategy or similar
4	Functional	Behaviours that represent the purchase or use of products to fulfil an everyday purpose or function
5	Nutritional	Behaviours that represent the purchase or use of products to fulfil a simple need for protein or food
6	Medicinal	Behaviours that represent the purchase or use of products for perceived treatment of illness or promotion of wellness (i.e. curative /preventative)
7	Recreational	Behaviours that represent the purchase or use of products as part of a leisure or pastime activity
8	Reputational	Behaviours that represent the purchase or use of products for reputational gain—or "face"; to gain currency in a business transaction perhaps
9	Social	Behaviours that represent the purchase or use of products for social gain—to impress a peer group with a newfound "status" or wealth
10	Spiritual	Behaviours that represent the purchase or use of products to bring "good luck" or good fortune in business or life

Fig. 2. Motivational Clusters.

maximize synergies. This is because consumers are driven primarily by the motivations their purchase/use fulfils; taxonomic and commodity considerations may be secondary, instead driving perceptions of the "utility" the product offers in meeting the motivation, as per evidence recounted previously. Alongside this, human behaviour is universal (e.g. J. Drummond pers comm., 2015). Both factors combine to suggest that messaging focused on eroding the motivations evident in a Cluster could be informed by a universal behavioural science theoretical foundation, but localized to benefit several taxonomies and commodities simultaneously.

For example, designing messaging to reduce the demand for illegal wildlife products used for the "Emotional" Cluster by the "new-wealthy" in urban centres in Viet Nam, may refer to several tried and trusted models in behavioural science (e.g. the aforementioned "Trans-theoretical Model", but also the "Theory of Planned Behaviour" (Ajzen, 1985); "Diffusion of Innovations" (Rogers, 2003), and, "Needs, Opportunities and Abilities" (Vlek, 1997; 2000) models); and may impact consumption of commodities from elephants, rhinoceroses, Tigers, marine turtles, tortoises and "exotic" species used for ornamentation, display or (ostensibly) companionship. The potential for messaging, relating primarily to a Motivational Cluster rather than taxonomy or commodity, in helping to streamline demand reduction Community of Practice effort, could in this example be significant and thus should be considered and explored further.

In addition to adequate "localization", another success factor for communications and approaches to change consumption choice is promoting a positive rather than too overtly negating a negative[6], or as one recent commentator put it, replacing "demand" with "desire" (R. Lertzman, pers comm., 2015). The US health burden associated with poor dental care around the turn of the 20th century was substantial, despite availability at that time of fluoride toothpastes. It was not until *Pepsodent* put mint and citric oil in theirs that brushing teeth started to become a social

norm, and ultimately an habitual behaviour. This change was driven initially by a commercial interest that benefited the public good, but also tailored messaging and the fact that people liked the "tingle" and taste (Duhigg, 2012). A Water and Sanitation Program (WSP) handwashing case study in Viet Nam achieved similar change with young people, when prompts were provided and soap "smelled nice"[7].

These examples illustrate the complex set of social, cultural and inter- and intra-personal values, attitudes, beliefs and desires, which may be beyond a conservation concern but nevertheless important to consider when creating messaging to change choice. Typically, countries have priorities around improving international image; collectivist cultures of enjoying new ways to celebrate common heritage; consumers of being "on-trend"; business leaders of managing reputational risk and improving brand visibility/integrity; and individuals wanting to do the best for themselves/loved ones when treating illness/promoting wellness. All of these interests therefore may offer useful initial "hooks" for approaches and messaging aiming to change behaviour.

Considerations around message "tone" and "framing" (i.e. positive/neutral/negative) are implicit. Common sense dictates a didactic, judgemental or imperious tone is more likely to insult than influence; i.e. in relation to teeth brushing and handwashing, people could just have been "told what to do" for better health. But evidence exists to suggest that messaging employing shocking claims, adopting a lecturing style, inferring a moralized commentary or seeking to alarm people into guilt for their "bad" behaviour, whilst questionable in general may also, from a behavioural science perspective, stimulate a counterproductive result (e.g. Brennan and Binney, 2010). Nobody likes being scolded or told off. For "emotional regulation" (Gross, 1998) people turn away as it is too upsetting, or because they feel that they are inherently a "good" person anyway and that the message cannot therefore relate to them. Avoiding this is therefore key.

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[6]*https://www.iucn.org/commissions/commission-education-and-communication/our-work/love-not-loss;*
[7]*Water and Sanitation Programme: Improving Handwashing with Soap Behaviour Change Toolkit: https://www.wsp.org/hwws-toolkit/hwws-tk-home.*

Another result concerns the quality of the messenger. The target audience may dismiss the carrier of an "extreme" message (Chase and Do, 2012); i.e. assume it is somebody unqualified to comment, with inadequate credibility on the issue or too vested an interest in the result. This was evident in the WSP handwashing case study. In behavioural science there have been many studies conducted around the character traits and personality profiles that create the most influential messengers. Cialdini suggested Principle No. 4 "Liking" and No. 5 "Authority" as important (Cialdini, 2006). Celebrities often act as "Key Opinion Leaders" in campaigns and are critical in catalysing media interest and public profile. But reach is not resonance. Indeed, some studies (Feder and Savastano, 2006) suggest that "excessive socio-economic distance is shown to reduce the effectiveness of diffusion… People turn to seek advice from their peers, from individuals of the same background, interest and values". In his celebrated book *The Tipping Point* (Gladwell, 2000), Gladwell posited several promising scenarios for promoting pro-social change through "Mavens"; "Connectors" and "Salespeople". Subsequent research found that "Mavens" are easily mobilized as messengers, but that "Connectors" and "Salespeople" are also crucial (Fell *et al.,* 2009). Overall, much more research on the individual qualities that make influential messengers is required.

A final consideration around "tone" and "framing" of behaviour change messaging, arises from the "Twin-Track Approach". Communications associated with Track One i.e. measures to impose a societal behavioural control, in simple terms reinforce the "sticks" in the rationale to change consumption choice. Messaging in Track Two can thus afford to focus more on the "carrots" shaping motivation. This mix of messaging, ensuring what is being advocated is in line with the EAST framework (Behavioural Insights Team, 2014) of Easy; Attractive; Social; and, Timely, and reaching the audience in eye-catching and engaging ways via multiple channels, is extremely powerful from a behavioural science perspective.

Moving Forward? Marketing "Suitable" Alternatives

A practical response for the demand reduction Community of Practice to these various factors could be to focus social and behaviour change communications and approaches on marketing a suitable alternative; i.e. one through which motivations or desires in a Cluster might still be met (CEPSM, 2016). Encouraging consumers to make a small shift from one commodity used for e.g. financial purposes to another, should be easier than stopping them from consuming any commodity fulfilling that motivation entirely (UK Government Communications Service, 2014). From a behavioural science perspective, it is one behaviour to change (i.e. purchase of that product specifically) rather than two (purchase of those products generally, plus that product specifically). High-value commodities such as elephant ivory, Tiger skins and rhinoceros horn are classed in a luxury product bracket (e.g. TRAFFIC, 2013; Sarchet, 2015; Kennaugh, 2016), thus, finding a "suitable" alternative with a similar utility from that bracket, could be fruitful from a behavioural science perspective.

Risks in identifying a "suitable" alternative are inherent. Those related to synthetic substitutes were explored in Broad and Burgess (2016). As outlined there "In economic terms, substitute goods are products that a consumer perceives as similar or comparable, so that obtaining more of one product makes them desire less of the other product (or vice versa)".

Beyond this however, sustainability appraisals or similar assessments of "suitability" have not commonly been conducted for commodities of equivalent utility to wildlife products. Further, some candidate commodities are already known to be unsuitable. As a material, jade may hold similar utility to elephant ivory for luxury product consumers driven by Financial and Social motivations—it has great value, is carved skilfully, holds aesthetic appeal, spiritual significance and conveys a rich cultural heritage. Human rights abuses are often reported in the jade extraction industry and supply chain, however; it could not therefore be marketed as a suitable alternative to elephant ivory unless those concerns were addressed.

More encouragingly, financial analysts have reported recently that the "super wealthy" are buying more experiences and fewer products (Adams, 2013). This is especially significant for illegal wildlife products consumed conspicuously to display new-found wealth—i.e. for motivations in the Social Cluster. From a behavioural science perspective, purchase of an experience rather than a product can lead to a lower peak for, but more lasting gain in, hedonistic pleasure. In simple terms, experiences can redefine us and generate happy memories for many years. By contrast, products eventually recede to become "a familiar part of the furniture". This and aligned constructs were explored with the demand reduction Community of Practice in the "Creative Showcase" at the aforementioned Hong Kong workshop, and further ideas for "suitable" alternatives shared there are available in the Proceedings accordingly (TRAFFIC, 2016b).

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While jade may offer an equivalent utility for consumers to elephant ivory, it could not be marketed as a "suitable" alternative owing to alleged human rights abuses in the extraction industry.

- **An analysis of behaviours**
  There are various behavioural "domains" and identifying which the "bad" behaviour being changed sits in, can be helpful in determining the most appropriate mechanisms through which to do so. For example:
  1. Consumption behaviours relevant to illegal wildlife trade may span domains between "habitual" and "one-off" and "opportunistic" and "deterministic". The storability of products and whether they are consumed through a "destructive" or "durable" form of consumption relates:

    » Commodities consumed regularly and thus that need replenishing over time, would logically involve behaviours in the "habitual" domain—i.e. illegal wildlife products ingested for "Medicinal" use, to treat illness or promote wellness. Sometimes habitual behaviours are so routine and ingrained, people do not realise they are making a conscious choice to undertake them; "Lewin's Change Theory" can be applied to raise the level of cognition and catalyse reflection and "revision" accordingly.

    » Commodities consumed less frequently, could involve behaviours in the "one-off" domain—i.e. illegal wildlife products purchased perhaps as a gift, to secure a lucrative business deal for "Reputational" reasons. These behaviours may be easier to change through e.g. "Social Network Theory" with consideration of "Dunbar's Number" and the aforementioned EAST Framework alongside this.

    » "Opportunistic" purchasing choices might benefit from an emphasis on "Track One" Approaches: i.e. as people purchase when they come across products in a physical or virtual market, removing them from that market through measures to impose societal control, will change the purchase behaviour by default. "Deterministic" purchasing choices meanwhile are more likely to benefit from additional emphasis on "Track Two" Approaches: i.e. communications and approaches that aim to shape individual motivation. Kahneman's "Fast" and "Slow" Thinking , offer a useful corollary and plentiful point of reference here.
  2. Little is known currently about what the "entry/gateway" and "catalyst" behaviours are that trigger more established patterns of consuming illegal wildlife products. Consumer research provides some insight into what prompts initial purchase choice, but this is simplistic and not the same. Often "entry/gateway" behaviours are useful to know as they are easier to change—more malleable and in simple terms, less "sticky", i.e. not a fully-fledged part of the consumer's "psyche" yet. Further research is thus recommended.
  3. Finally, it is worth considering how consumption behaviours in different "Motivational Clusters" relate to the layers in Maslow's "Need Hierarchy". Those in the more basal layers of the hierarchy (i.e. those fulfilling "Nutritional" motivations, which may relate to the "physiological" layer) may require more thoughtful approaches and sensitive messaging, to accommodate ethical considerations and avoid a counterproductive effect.

- **An analysis of commodities**
  It would be interesting to identify which commodity carries the greatest potential for conservation impact. For example, in relation to Tiger products—would it be skins, claws, teeth or bone pastes, glues, wines or jewellery? The answer would be determined by a complex mesh of considering:

  » How frequently the commodity is purchased (associated with the previous point about "durable" and "destructive" types of consumption, but also potentially price, and perceptions of future supply);

  » How much raw material is involved in production; and

  » How durable/storable the product is.

  If certain commodities appear to have a much higher potential for conservation impact than others, identifying a suite of associated "Headline Behaviours" to focus demand reduction Community of Practice effort around changing, may be useful.

- **An analysis of the target audience according to attitude**
  Current target audience segmentation for demand reduction messaging focuses on a mix of socio-economic status; occupation; age; gender and location. Attitudinal segmentation (i.e. according to those who are most "willing" and "able" to act) can, alternatively, be an extremely powerful way of catalysing behaviour change. Only one consumer research study so far (regarding one commodity from one taxonomy in one geography), has identified who the "Persuadables" are and whether emotional or logical arguments work best with them in changing choice. Others have identified "Likely Buyers" and may be adapted.

- **Whether there would be a "Rebound" effect**
  The so-called "Rebound-effect" is well established in relation to climate change campaigns; i.e. when carbon savings made through one type of behavioural change are offset by gains in another. A simple illustration is somebody who spends a year saving carbon and money by switching off electrical appliances when they are not in the room, and takes a long-haul flight to reward themselves. It is unclear whether this could be something the conservation community may have to consider in due course, but closely relates to the "suitability" of alternatives being marketed through behavioural change messaging instead, and potentially also the analysis of aforementioned commodities.

- **Whether there are existing successful messages that social and behaviour change communications and approaches could be aligned more closely with**
  Messaging can often be aligned with other successful messages, provided there is adequate lateral thinking and an appetite for creative approaches. Examples could include messaging that emphasizes making the "right" consumption choice (i.e. selecting the "suitable" alternative) is part of e.g. civic pride; good health; a patriotic act; Corporate Social Responsibility commitments or; living a more sophisticated lifestyle. If message alignment is seamless enough, this may pave the way for "piggybacking" behavioural change communications on these themes, thus achieving a "multiplier effect", mainstreaming action and maximizing impact.

Fig. 3. Aspects to consider and discuss further amongst the demand reduction Community of Practice.
Based on information influencing the design of behaviour change communications and social and behavioural change communications and approaches in the public health, international development and sustainable lifestyles arenas, the above are noted as opportunities for future demand reduction Community of Practice investigation.

Other success factors for Behaviour Change Communications and Social and Behavioural Change Communications messaging include appealing to the heart as well as the head (i.e. using emotional and logical arguments); recognizing and rewarding the "good" behaviour once it has been conducted; and playing to our natural tendencies towards loss aversion, cognitive biases and heuristics. Consideration of these is beyond the space available in this paper, but included in the Wildlife Consumer Behaviour Change Toolkit[8] created to support the Community of Practice working on changing behaviour to reduce consumer demand for illegal wildlife products.

Final factors worth featuring here are that messaging should avoid reinforcing the utility of the illegal wildlife product in question (for example, by showing high-quality visuals of it in a processed state), and implying the current "bad" behaviour of purchasing it is a social norm; i.e. commonplace, with many displaying it without consequence. This arises inadvertently from broader media coverage of markets driving the poaching crisis; but it is recommended that those designing messaging to change behaviour messaging are mindful as a result, to ensure real and rapid impact in reducing the demand for illegal wildlife products.

More Information

This paper considers some of the challenging questions facing the conservation community in relation to communications raising awareness of the escalating threats to endangered species and those aiming to reduce some of those threats, by changing consumer behaviour. It introduces some of the behavioural science principles that could help guide, shape and inform an impactful response, but also seeks to stimulate further discussion by all those with a stake, passion, interest or mandate in reducing demand for illegal wildlife products, i.e. the demand reduction Community of Practice. This discussion will be continued through the Wildlife Consumer Behaviour Change Toolkit[8], and other aspects of follow-up to the *Changing Behaviour to Reduce Demand for Illegal Wildlife Products Workshop* held in Hong Kong, 7–9 March 2016. Further information will be made available in due course on: www.changewildlifeconsumers.org.

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[8]*(www.changewildlifeconsumers.org)*

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