

# Guest Editorial

## Misdirection in Global Health

### Creating the Illusion of (Im)possible Alternatives in Global Health Research and Practice

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This issue is dedicated to friend and colleague Dan Allman who passed away of the 27 January 2022. Dan had a paper in the special issue that he did not get a chance to complete; we have included a Tribute to his work that summarises his ideas. May he rest in peace.



## Introduction

Founded in 2003, a novel medical technology company called Theranos introduced a small automated device which promised to test for hundreds of diseases and health markers rapidly with only a small sample of blood. This device had the potential to make dramatic and paradigm-shifting changes to public and global health, as it required so little health infrastructure to operate. Theranos, situated in Silicon Valley, was immediately dubbed the “Apple of Biotechnology.” The company was founded and led by an intriguing character, Elizabeth Holmes, a blonde, blue-eyed, 19-year-old, who had dropped out of Stanford to pursue this passion project. In TED talks and to the media, she promised to “rescue the world” with this remarkable device.

Holmes’ charm and enthusiasm for change was infectious. Theranos quickly raised nearly a billion dollars in investments, attracting a remarkable cast of investors, including Henry Kissinger, George Schultz, and James Mattis. While to many, Holmes’ dedication and charisma seemed genuine, behind the scenes, her promises were not being borne out. Potential investors were told that they were seeing demonstrations of the technology at work, but in fact the blood tests were actually being done through conventional methods in another room. When an error occurred, a slow progress bar would pop up, ensuring that malfunctions would never be seen, only delays. None of this deterred Holmes from painting a picture of herself as a prophetic figure on the verge of transforming the world.

This illusion of promise worked incredibly well, deceiving regulators, investors, the public, and even those inside the company, until it didn’t. Once prototypes of the device were embedded in a select number of pharmacies, the immense deception behind the company became clear, and Holmes’ empire began to collapse. The narrative quickly transformed from one of an inspiring prodigy to one of a pretend genius who had no trouble engaging in elaborate deception in order to attract funders. This story of Elizabeth Holmes, the charismatic villain, proved irresistible, quickly leading to a bestselling book and widely viewed documentary (Carreyou, 2018; Gibney, 2019).

While this story of fraud and malicious intent can easily be told (and indeed has now been told within criminal charges brought against Holmes’) another, more complicated story lurks beneath the surface of this one. This alternative tale is one involving layers of misdirection, a concept that this special issue borrows from the realm of magic. Beyond the deliberate deception of Holmes lie many background conditions, forms of tacit knowledge, and perverse incentives that helped make this remarkable global hype and deception possible. As Holmes herself emphasizes in her own defense, the culture at work in Silicon Valley is one in which exaggerated promises of the potential of startups are entirely ordinary. Those building a technology from scratch require funding, and such funding is secured through selling the promise of one’s technology to potential investors. Unsurprisingly, in this negotiation, the line between ‘we will’ and ‘we can’ is not always drawn very clearly for potential investors. How much is required to declare that one has a proof of concept - a drawing, a patent, a working device? In this realm of cloudy truths, countless Holmes are created every day in the infrastructure of Silicon Valley, as young entrepreneurs acquire the tacit knowledge essential to success in the tech industry - make promises, grow investments, and hope that you can follow through later (Collins, 2010). Such a strategy is so commonplace that it is not immediately recognized as deception or fraud; rather, it manifests at a pre-conscious level, and is gained gradually, for instance through enculturation and professionalization.

As such, the narrative of Elizabeth Holmes, who was “out for blood in Silicon Valley” is itself a form of misdirection, drawing out attention towards a single actor with clear intentionality, and distracting us away from the complex features which combined to foster conditions that rendered it difficult, even impossible, to ask tough questions, even when it was evident that statements being made about the device’s capabilities were false (Gibney, 2019). The common narrative encourages us to see the story of Theranos as an outlier, a tragedy that is unlikely to happen again, rather than part of a complex web of intentions, relations, and structures that serve to support and normalize forms of deception.

In this special issue, we explore such complex webs through the concept of misdirection, examining how it operates in the realm of global health. Misdirection is a concept developed within studies of magic (Kuhn, this issue), utilized in psychology and the cognitive sciences to describe a cluster of means and mechanisms by which attention is channeled, and processes of action obscured. Such a concept is especially welcome in global health, a complex, contested, dynamic, influential and loosely bounded domain of research and practice, replete with performance: from the anticipatory framings of funding bodies (McGoey et al., 2011) to accountability mechanisms, narrative control and a host of tacit assumptions that form its discursive arena (Montgomery et al., 2017; Sariola et al., 2017). Within STS, scholars have analyzed the relationship building, laboratory work (Pollock, 2014), geographic imaginaries (Herrick and Reubi, 2017; Brada, 2017) international collaborations (Sariola and Simpson, 2019), training regimes (Engel et al., 2014), drug development and the production of data (Kingori and Gerrets, 2019) that go into making up global health as a field. However, few have sought to directly tackle global health's particular form of solutionism: *how* are some practices and outcomes configured as the only viable option? The analytic of misdirection, taken up in numerous ways by contributors to this special issue, aims to fill this gap, furthering STS vocabularies of (and for) global health. Operating as a concept that points to processes that, we argue, profoundly shape the broader field of global health, the need for the concept of misdirection arose out of shared field observations of power, narrative, and practice.

In this Introduction, we review literatures that complement and structure this analytic, positioning misdirection between schools of thought and describing the approach each of the contributors to the volume have taken in mobilizing its illuminating capacities. In doing so, we emphasize the interpersonal, narrative, structural and performative capacities of misdirection, and outline its potential as an analytic through which to see the interplay of illusion, attention shaping, distraction, deception, and solutionism that works to close down some global health futures, and ensure others.

## From magic to attention

The concept of misdirection in this collection operates as a means of interrogation. As the papers demonstrate, it can offer analytical purchase at a number of scales, from analyses of systemic practices to more intimate settings of treatment and health, beginning from a critical position that something is happening that is shaping both the outcome and perceptions of it. To situate misdirection as an analytical tool, we visit first the world of magic, a domain more widely addressed by historians of science (Webster, 1982; Vickers, 1984; Marrone, 2014) than STS scholarship, before going on to review how critical studies of attention – its objects and characteristics – can inform observations of misdirection in practice.

Imagine yourself arriving at a magic show. The darkened theatre and a spotlight on stage. Perhaps the room is not large, perhaps you are there with twenty or so others, close enough to the stage to see scattered sequins from the last performance, and see the dimly lit faces of others. When the performance begins, the magician engages the audience, asking for chosen cards, discovering items in pockets, and anticipating the unexplainable, as you watch closely. You want to see how it is done. Each time, how the coin arrives here, or the card there, eludes you. You and your friends leave impressed, discussing theories of *how* each trick was achieved.

Performative magic is an art-form in which magicians create the illusion of the impossible (Ortiz, 2006). In the growing field of research into the 'how' of performative magic, researchers have made the case that by neglecting the efficacy of magic, cognitive scientists miss a key way of understanding perception (Kuhn et al., 2008). Scholars have since analysed the ways that professional magicians exploit 'cognitive limitations' (Kuhn, 2019), the processes underlying human attention, perception, deception and free will.

Misdirection, in this literature, is a specific process deployed by magicians in order to prevent the audience from detecting the deception that has been used. In other words, misdirection prevents the observer from attributing the true cause of the magical effect they have witnessed. In the magic show you just imagined, the coin trick the magician performed used sleight of hand

to make the coin vanish. Misdirection is used to prevent the audience from noticing the sleight of hand. The magician may exploit, for example, the public's attention, by using their eye gaze to guide the spectator's attention away from the sleight of hand or by asking the spectator a question at a crucial moment, which will automatically draw the spectator's attention towards the magician's face, and thus preventing them from noticing the sleight of hand (Kuhn, et al., 2016). Misdirection, then, is the process of directing people's thought processes, including their *attention*. Magicians will orient their audience towards an intended outcome while simultaneously diverting their attention away from the process used to achieve it (Kuhn 2019).

At present, attention is a topic of renewed interest across fields - from digital humanities (Bucher, 2018; Bucher and Gelmond, 2018; Thain, 2018) and aesthetics (Prendergast, 2004) to neuroscience (Lorenz-Spreen et al., 2019; Macknik and Martinez-Conde, 2010) cognitive science (Kuhn et al., 2016) and literature (Odell, 2020). Thoroughly interdisciplinary, "it seems there is no popular issue that can avoid being framed in attentional terms" (Pedersen et al., 2021: 311). As anthropologists Pedersen, Albris and Seaver point out, the 'attention economy' was first described by psychologist Herbert Simon in 1971: "when information is abundant, human attention becomes a scarce resource, yet it remains elusive 'mean[ing] different things in different contexts, appearing at times synonymous with willpower, perception, valorization or care" (Pedersen et al., 2021:310).

Our interest in this collection, however, is less to do with scarcity and the economic, but shares a desire for the kind of account that 'understands attention as an irreducibly socially and materially mediated phenomenon, not simply as a scarce resource *that is located in and limited by individual mind-brains*' (Pedersen et al., 2021: 312, emphasis added). Within the anthropology of media, internet and digital platforms, this means taking a more distributed approach to attention, considering its infrastructural components, financial incentives, fashions, wherein attention "partakes in and reproduces larger political structures and economic flows" (Pedersen et al., 2021: 319). From this, we borrow license to consider what the

shaping of attention does within the structures of global health. Our attention is socially delineated. What we pay attention to and what we don't, what we foreground and what recedes into the background, what we notice and ignore, is formed by our participation in collectives, or 'attentional communities' (Zerubavel 2015:9, 53). This creates a perceptual readiness to notice or ignore that can be linked to particular subcultures such as disciplines (Zerubavel, 2015: 56) and scientific practice more generally (Zerubavel, 2015: 111). Freudenburg and Alario (2007) in *Weapons of Mass Distraction: Magicianship, Misdirection, and the Dark Side of Legitimation* focus on those elements that are *required to disappear*, on the attention that needs to be evaded to maintain legitimacy. For example, misdirection is operationalized by diverting attention away from any questions about existing distributions of privilege in politics. Mc Goey (2012) emphasizes how a focus on "strategic unknowns resists the tendency to value knowledge over ignorance or to assume that the procurement of more knowledge is linked in an automatic or a linear fashion to the attainment of more social or political power" (Mc Goey 2012: 1). These strategic unknowns or elements that are evaded or what is absent or strategically hidden become key for the misdirection process to work. Gross (2010) defines several types of 'unknowns': 'nonknowledge' (that what is not known), 'nescience' (we don't know that we do not know certain aspects) and, 'negative knowledge' ('the active consideration that to think further in a certain direction will be unimportant' or 'even dangerous') (Gross, 2010: 68). Taussig emphasizes the relevance of public secrets, i.e. what is "generally known but cannot be articulated" (Taussig, 1999: 5) and their relation to power (Taussig, 1999). Questions around what type of knowledge and processes are strategically ignored and its link to power is at the heart of this volume.

Misdirection as an analytic therefore emphasises both what we notice, and what remains hidden or inattended and it can help 'unmask' the process of distraction and perceive what is absent. For example, White describes how framing ethical research as an informed consent procedure focuses attention on the details of the procedure while obscuring questions such as "whether

the whole political and epistemological process can be judged ethical” in the first place (White, 2017). Similarly, work on method in global health has critiqued the way evidence-based medicine privileges and perpetuates particular methods and ignores evidence obtained by other means (Oreskes, 2019; Kingori and Douglas-Jones, 2020; Peeters Grietens et al., 2019). This ‘purposefully underdetermined’ (Pedersen et al., 2021: 312) perspective on attention and misdirection takes us beyond an individualized focus, and opens up for distributed agencies and systems working in concert.

### Structural misdirection

Two recent publications outline how misdirection may be put to analytical use. First, in their work on the scientific standardization of intervention in malaria elimination, Peeters Grietens, Gryseels and Verschraegen develop the idea of a ‘universalist sleight of hand’ (2019: 390), occurring when interventions depend on and produce “decontextualised evidence by methodologies that exclude social variability” (Peeters Grietens et al., 2019: 390). Sketching the “underlying values and logics of daily scientific praxis in specific epistemic communities’, these scholars describe a ‘circular system of knowledge production [that] hinges on measuring universally valid characteristics of an intervention with methodologies that aim to produce non-contextual evidence” (Peeters Grietens et al., 2019: 400). In their analysis, attention is shifted -by the assemblage of data, evidence and intervention- to “new universal medical and biotechnological interventions’ at the expense of ‘localizable plausible solutions” (Peeters Grietens et al., 2019: 397). Using the idea of misdirection, these authors point to the way that the production of scientific data and global health evidence is shaped through the direction of attention to particular approaches (Peeters Grietens et al., 2019: 398).

Second, in 2018, Sarah Gimbel and colleagues published an analysis demonstrating that global health ‘partnerships’ were producing mechanisms by which data, as capital, was being “harvested from sites, passed between partners, used to audit and surveil systems, and ultimately deployed to

justify and promote subsequent rounds of project making and data gathering” (Gimbel et al., 2018: 80). All this data is not only laborious to produce, but is done so – as Gimbel et al. demonstrate – by solidifying existing disparities, as ‘unequal power dynamics privilege donor priorities above local ones’ (Gimbel et al., 2018: 94). Together, the facets of the article make evident how the ‘need’ for data is sustained; master narratives about data put the production of data above and “often at the expense of... under-resourced health systems” (Nichter, 2008: 2). As they marshal their examples to challenge this seemingly self-evident base of monitoring and evaluation, Gimbel and colleagues make evident that from the point of view of the recipients of global health funding, donors’ needs for data “only grow, with new indicators or increasingly disaggregated metrics, each year more onerous to collect, report, disseminate and use locally” (Gimbel et al., 2018: 88). Their critique rests here: as energy, time and effort is poured into producing data on the efficacy of intervention, attention is drawn away from the capacities not being built, in reporting, statistics, and data more relevant to recipient countries’ own priorities.

Both of these papers tackle the process by which knowledge about global health is produced, shaped and organized according to both method and international agreements, whether of standardized subjects or accountability demands. So what kind of ‘structural misdirection’ might be taking place here? When STS scholars attend to the production of evidence, they have sought to consider the settings and mechanisms by which it is produced. Following Peeters Grietens et al., we suggest that while magicians astound their audience through deception and performance, taking place explicitly and on center-stage, misdirection in global health can also unfold tacitly back-stage and can describe hidden processes and reveal covert and implicit tactics that are being deployed (c.f. Jones 2014).

This misdirection can be pursued as what Pedersen et al. (2021: 312) call an “irreducibly socially and materially mediated phenomenon”. And rather than being achieved through the singular mind of a magician, misdirection within global health can be seen as dispersed, as entan-

gling individuals, structures, processes, and histories.

Processes of misdirection can underpin, then, the production of knowledge and shape action. As in Peeters Grietens et al.'s (2019) study of what is considered a possible direction for malaria intervention, misdirection shapes possibilities and impossibilities for action. Building on this notion of misdirection to examine knowledge production practices in global health, the contributions in this special issue aim to show how our attention is often focused on specific processes, practices, and outcomes while side-lining, 'invisibilizing', alternative methods, evidence, theories, and interventions (Peeters Grietens et al., 2019), thus creating an illusion of impossibility (Ortiz, 2006). Tracking processes of misdirection involves locating where the spotlight lands, what is left in the dark, what is revealed or made impossible, what kinds of actors and assemblages are involved, and what pathways are engendered or foreclosed.

This balance between the abstract and the empirically anchored will allow those interested in pursuing their own analyses to ask of novel phenomena: Is there a case of misdirection here? If so, who or what is misdirecting, who or what is being misdirected, what is revealed and what is hidden? Which aspects in misdirectional processes are intentional or unintentional, or a combination thereof, and what are some key effects? How does it play out temporally, materially, and geographically? What knowledge, memories, narratives and realities are created as a result?

## The contributions

The contributions in this collection highlight three distinct aspects of the way misdirection can be used to pinpoint and illuminate what will count as global health knowledge and practice: interpersonal, narrative, and structural. Across the articles, which span the interpersonal and the global, our authors are concerned with questions of the efficacy of stories and the socio-material implications of knowledge making.

A first paper by Kuhn, Kingori and Peeters Grietens describes the concept of misdirection in the field of magic, showing that although misdirection lies at the heart of this deceptive art, there

is little consensus as to what actually defines the concept. The paper continues to discuss the key psychological mechanisms that are involved in misdirection and ends exploring some of the uses of misdirection in other domains such as politics and online deception. One element of departure from misdirection in magic in this special issue relates to the idea of intent. While misdirection in magic always implies intent, several authors in this special issue depart from this key aspect. In the Tribute to Dan Allman, for example, we describe how in Dan's work he used 'intent' as a lens through which to examine misdirection. He included involuntary or shadow misdirection in his examination of the construction of research in the pressured conditions of global knowledge production. Weighing the unplanned and the involuntary on the scale of intent, Allman found the limits of knowing about intentions in the 'risky business' of research.

Our second cluster of articles allow us to focus on the power of narrative in acts of misdirection. In their discussion of the regulation of herbalism in France and England, Emilie Cloatre and Nayeli Urquiza Haas trace a series of misdirections narrated both by herbalists and the regulatory and legal infrastructure. At stake is what will count as 'real' medicine, and at the forefront is the 'screen of apparent legal protection' which Cloatre and Haas systematically analyse. From illusions of legality to the production of the illegal, in this analysis misdirection is the artful way that the distributed actors of the legal system narrate a proactive intervention triumphing over competing claims to knowledge. This contestation over kinds of evidence appears in Keys's contribution, which expounds on the handling of malaria elimination in Santo Domingo, capital of the Dominican Republic. Framing misdirection as co-produced, Keys illustrates how narratives about poverty, stories told by hemograms, and the belief in the neutral narration of data combine to erase the local specificities of the malaria outbreak in the Dominican Republic, folding it into a global, unsited story. In their text which builds on placebo literatures, Phoebe Friesen and Emilie Dionne interrogate narratives of 'beneficent deception', asking how and where deception is justified in medical research and practice. Friesen and Dionne

focus their exploration on the role of story and voice in such cases, examining how stories told to justify these practices tend to offer clear narratives of beneficence, directing audiences away from who tends to be deceived, and who is given voice within these stories. Examining research involving children and high-tech “placebo machines”, provocative testing used to stimulate pseudo-seizures in patients suspected of faking it, and dementia villages that recreate the past through hyperreal architectural design (Baudrillard, 1981), the analysis traces the often fraught and ethically challenging territory of deceptive medicine.

Misdirection as a form of erasure, particularly of structural inequalities, appears in our third theme. The universalist aim of Global Health and the inequalities it produces is apparent in Alenichev’s contribution “Encountering semiotic misdirection in Covid-19 etiquette guides”, showing how Covid-19 preventive measures and related public health materials inevitably project hidden norms and values on “standardized” people and communities, generating a seemingly universal etiquette (e.g., hand washing), that hides/ignores social, moral and material dimensions (e.g., the absence of running water) that may complicate these norms for targeted populations, leaving many people structurally shamed due to the unavoidable transgressions.

### **Misdirection as Achievement**

While distinct in their scale, these papers demonstrate how the questions that misdirection produces can illuminate the stakes of global health knowledge and practice. In some cases, it is possible to identify actors shaping situations, in others, less so. Nonetheless, attention to misdirection can shed critical light on power: it probes questions of who steers the narrative, what stories are dominant, what and how counternarratives are made absent, and how attention is shaped. Its capacity to open backwards onto intention, to focus analysis on interpersonal engagement, and to force the identification of persuasion and distraction gives it a generativity that notions such as performance or performativity lack. At the same time, misdirection can be used to contest power. Fieldworkers in global health mobilize their misdirection skills as a tactic when facing adverse working conditions

that they have little power to change (personal communication Patricia Kingori and Rene Gerrets) while herbalists in France and the UK circumvent the law and navigate its ambiguities to be able to carry out their professions (Emilie Cloatre and Nayeli Urquiza, this issue).

Looking across the papers, we reflect on susceptibility to misdirection: are there specific subgroups, topics, or attractors of it? While this collection takes no geographic area as its focal point, future research might ask where specific genres of misdirection appear, how misdirection itself is (tacitly or otherwise) incorporated into strategies to deceive or how misdirection can be a strategically embedded pre-condition for the functioning of specific institutionalized processes. This is the case, for example, during the informed consent process where the fact that populations participating in research do not understand the pages-long technical language is strategically ignored; as is the fact that large part of populations do not distinguish between research and aid; that the large majority of participants decides to partake in research before hearing the consent information (Paré Toe, 2013); or that individual autonomy in the decision-making process that is claimed as the ethical standard is just not present in many contexts.

It remains an empirical question how misdirection ‘works’ in its various guises: what might scholars gain by pointing out what misdirection hides, such as the ‘sleight-of-hand’ processes that hinge on creating illusory ‘choices’, or illustrating how outcomes are predetermined (referred to as ‘forcing’ in magic (Pailhès and Kuhn, 2021) by adroitly manipulating/determining what is perceived as (im)possible?

Beyond identifying moments and sites, the papers also sketch out a politics of misdirection. As a number of the papers show, STS and global health scholars may be themselves drawn into practices of misdirection, knowingly or otherwise. Like the participation of a selected person in the audience of a magic show, chosen to validate the magic trick, global health researchers often express the feeling of being used to validate that what has already been decided, like in a magic trick when the “card is already on the table” and the outcome of the trick has already been scripted.

Here inheres the question of how misdirection participates in governance, and is itself governed. From questions of research ethics, where misdirection is incorporated deliberately into deceptive treatment (Friesen and Dionne, this issue), to the ambiguities that inhere in making claims to and regulating herbal medicine (Cloatre and Haas, this issue), attending to misdirection raises further questions. Scholarship in the cognitive and behavioural sciences is beginning to take up the production of wonder as a site of greater understanding of human minds, demonstrating that prior information about deception inhibits only some of the

efficacy of misdirection (Kuhn and Tatler 2005; Kuhn et al., 2008; Kuhn et al., 2016). This raises questions for scholars: who should know how to do it, who should allow it, who assesses its impact on others?

By working with both the conceptual tool of misdirection and rich empirical data sets, it is our hope that this special issue will pave the way for future scholars to take up the concept of misdirection in their own work, incorporating it as a critical illuminator of the technologies, infrastructures, devices and assemblages that make up the field we know as global health.



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