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Blameworthy bumping? Investigating nudge's neglected cousin

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ABSTRACT

The realm of non-rational influence, which includes nudging, is home to many other morally interesting phenomena. In this paper, I introduce the term bumping, to discuss the category of unintentional non-rational influence. Bumping happens constantly, wherever people make choices in environments where they are affected by other people. For instance, doctors will often bump their patients as patients make choices about what treatments to pursue. In some cases, these bumps will systematically tend to make patients' decisions worse. Put another way: doctors will sometimes harm their patients by bumping them in systematic (although still unintentional) ways. I use the case of medical overuse, the provision of medical services where the likely harm outweighs the likely benefit to the patient, as a touchstone for arguing that doctors who systematically bump their patients towards harm can be blameworthy for their unwitting influence.

INTRODUCTION

In this paper, I will argue that a certain type of influence—*unintentional non-rational influence*—is more ethically significant than is commonly acknowledged. Highlighting its similarity to *nudging*, the oft-discussed type of influence named and popularised by Thaler and Sunstein,[1] I shall call this type of influence *bumping*.[i] In order to show that bumping is a significant and morally relevant phenomenon, I will argue that bumping can and does cause significant systematic harm and that people sometimes can be—and are—blameworthy for harm caused by their bumping. In particular, I will argue that doctors can sometimes be blameworthy for bumping their patients towards the harm resulting from overuse.

WHAT IS BUMPING?

In very broad terms, A influences B to Φ when A causes B to Φ in the right way, where A and B are agents and Φ is some sort of behaviour or mental state.[ii] For the purposes of this paper, 'influence' means *mental influence*, which involves A causing B to Φ by affecting B's mental states. The clause 'in the right way' is meant to exclude especially outlandish ways of affecting someone's mental states, such as A directly stimulating B's brain with electricity, which is intuitively very different from the usual ways in which we affect each other's mental states.

Often, influence consists in A causing B to Φ through some sort of behaviour, for example, speech.[iii] A paradigmatic case of influence would be A causing B to exercise more by telling B that she ought to exercise more. B starts to exercise more because she was caused, by A to believe that she ought to exercise more. Another case would be A causing B to exercise more by giving B a vivid description a pleasurable walk in the forest, thus causing B to want to take a walk in the forest. Note that A's influence need not be a *sufficient* cause of B's Φ-ing: it merely needs to be a *contributing* cause.[iv]

Doctors influence their patients in all sorts of ways. Some of these ways are what we may call *rational influence*. Rational influence is influence that works *because* the patient is rational. Paradigmatically, rational influence involves the doctor presenting information and arguments to her patient, which the patient can take as reasons for or against something, and the patient responding to those reasons in the right sort of way. For instance, the doctor tells the patient that the risks of side effects are very low, and the patient is reassured because she takes the risks of side effects being very low as a *reason* not to worry.

However, much of the influence doctors have on patients is what we may call *non-rational influence*. This is influence that works either because the patient *fails to be rational* in some way, or because

[i] I chose this word mainly because of its similarity to 'nudging', and the sense is intended to be the one found in utterances like "I bumped into someone", which carries the connotation of accidentality. However, it is not a perfect fit as it is perfectly possible to intentionally bump into someone.

[ii] Because I focus on the response of the target, that is, whether and how influence had the right effect, influence and its types are, in my typology, *success terms*. When A tries to make B do Φ, A is strictly speaking only influencing B if she *succeeds;* otherwise, she is only *attempting* to influence. However, as an anonymous reviewer points out, the *attempt* to influence is often the morally relevant thing.

[iii] A can also influence B just by having the right kind of properties and relations, as when Zoe's influences her daughter to become a doctor by being a doctor herself.

[iv] Interestingly, a single action can be both rational influence and non-rational influence at the same time, as one action can both have effects that take the causal pathway characteristic of rational influence and effects that take the causal pathway characteristic of non-rational influence. Indeed, this is common, as non-rational responses often take the form of over-reacting or under-reacting to legitimate reasons. For example, when a doctor presents her patients with a statistic about the risk of some side effect, the statistic itself is a relevant reason, but the way the doctor presents it may cause the patient to give it too much or too little weight. In presenting the statistic, the doctor both rationally and non-rationally influenced her patient. Thanks to an anonymous reviewer for an illuminating comment on this point.

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the influence *bypasses*[v] the patient's rational capacities. Typically, influence is non-rational because it works by triggering processes that are either not reasons-responsive in the current context or responsive to reasons that are irrelevant in the current context. For example, the doctor could make the patient worry less about the possible side effects of some treatment by giving her a reassuring smile or by playing soothing background music. Whether or not the doctor is smiling or there is soothing music in the background is irrelevant to whether the patient ought to worry about the side effects of some treatment.[vi] Nevertheless, these things are likely to affect the patient's decision about whether to undergo said treatment, because of the effect they have on her affective system. The smile and music will evoke calmness and make the patient less likely to baulk at the side effect.[vii]

One way to characterise what is happening is to say that the influence bypasses the patient's rational capacities by going through her affective system. Another is to say that the influence works because the patient is not fully rational in the sense of making her decision based purely on relevant reasons and giving those reasons approximately the right weight. Whenever I speak of not being rational in the following, I mean it in this limited sense. Note that saying that someone is less than fully rational in this sense is not meant to be pejorative. For one thing, it is just a consequence of the way the human decision-making system works that our decisions are affected by non-rational influence. For another, it is not clear that we would be better served by having a decision-making system that is fully rational in this sense.[viii]

When non-rational influence is *intentional* and satisfies certain criteria intended to make the influence non-coercive,[2ix] it is called *nudging*.[x] There has been much debate about whether doctors should or should not nudge their patients.[2–7] What has not been given the explicit discussion it deserves, however, is the ethics of *unintentional* non-rational influence. In his otherwise excellent article on nudging, Saghai even goes so far as to suggest that such influence is 'morally and politically irrelevant' (p. 491).[2] Presumably, this is because he lumps unintentional influence in with 'random features of the natural, social or built environment' (p. 491).[2] Unintentional influence need not be random, however. Often, there are systematic background conditions that shape and cause unintentional behaviour. The idea of doctors unintentionally influencing their patients in problematic ways is not new, as the following quote from Jay Katz indicates: 'Physicians may uncover the fact that their unconscious preferences and biases compelled their patients to yield to their recommendations even though consciously they had intended otherwise' (p. 128).[8] However, the fact that such problematic unintentional influence can take the form of non-rational influence has never been explicitly addressed, as far as I know. In the following, I wish to argue that unintentional non-rational influence, that is, bumping, is a morally relevant and significant phenomenon, despite having been overlooked in the literature. The definition of bumping is as follows:

Bumping: A's influence on B is an instance of bumping if and only if:

1. A's influence on B is an instance of non-rational influence.
2. A's influence on B is unintentional.

With this in mind, we can say that A bumps B when A unintentionally causes B to Φ by affecting B's mental states through triggering non-rational processes in B or by making B respond to irrelevant reasons or respond too strongly or too weakly to relevant reasons.

Here are some examples of bumps:

Frame bump: Jaume tells Yoan about the two possible treatments for her condition. Without intending it, Jaume frames the presentation of one of the treatments in such a way that it sounds much better than the other. The bump takes the form of a *framing*-effect. Different ways of framing things like statistical information can make presentations that convey equivalent information have dramatically different effects on decision-making.[9]

Salience bump: Ottomar has inadvertently placed the pamphlets in his waiting room in such a way that the pamphlets about treatment A are much more eye-catching and likely to be picked up by his patients than those about treatment B.[xi]

Authority bump: Aminta has put on her white doctor's coat. Unbeknownst to her, this makes her patients more likely to comply with her suggested courses of action, as people tend to pay more heed to the claims and commands of people dressed like authority figures. The bump can be seen as a consequence of the *trust-your-doctor heuristic*, the tendency patients have to trust their doctors to an irrational degree.[10]

Body language bump: Miroslava has had positive personal experiences with treatment A in the past, but being a believer in Evidence-Based Medicine, she thinks this ought not to affect her recommendation to her patients. Despite this, when presenting treatments A and B to her patients, her body language and tone of voice are much more positive when presenting treatment A.

In order to show that bumping, as I have described it, is a morally relevant phenomenon, I need to address two main concerns. First, it is not obvious that unintentional activity is an appropriate target of moral appraisal, and, as such, we might think that something like bumping is just not morally relevant.[xii] I will address this concern in 'Blameworthy bumping' section, by arguing that unintentional activity is actually quite often an appropriate target of moral appraisal. Second, we might think that bumping is not especially interesting because its effects are

[v] Bypassing of *all* mental processes is discussed by Nahmias.[40] Bypassing of rational capacities is discussed by Blumenthal-Barby and Burroughs.[3]

[vi] This claim is somewhat controversial: one could consider the doctor's body language, tone of voice and even her choice of frames as relevant reasons for the patient to choose or not choose some treatment, as Simkulet seems to argue we should.[7]

[vii] The effects of music on decision-making is well known and extensively studied in relation to shopping.[41] Observed facial expressions in general and smiling in particular have also been shown to affect decision-making.[42]

[viii] For example, a decision-making system that results in less than fully rational decisions in the limited sense, could be a better decision-making system in practice than in decision-making system that will not allow such less than fully rational decisions.

[ix] According to Thaler and Sunstein, nudges have to 'work without forbidding any options or significantly changing economic incentives', and 'must be easy and cheap to avoid'.[1] Whether these criteria succeed in making nudging non-coercive is controversial. Thanks to an anonymous reviewer for pointing this out.

[x] Some people also add that nudges must be intended 'to influence choices in a way that will make choosers better off, as judged by themselves'.[1] However, this conflates nudges with *libertarian paternalism*, and as Saghai has helpfully pointed out, this is a mistake.[2]

[xi] This is analogous to the famous cafeteria-example of nudging by Thaler and Sunstein.[1]

[xii] Another issue that might make us think unintentional influence is morally irrelevant is that it is the attempt to influence, that is, the intent, that is the morally relevant thing. One challenge in the following will be to show that this is not always the case.

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insignificant, or perhaps, that, although the effects of an individual bump might be significant, this is just a matter of chance and not worth paying attention to. I will address this issue in the following section by showing that bumping can have significant *and* systematic effects. In particular, I shall argue that the phenomenon of *medical overuse* is an example of a case where bumping systematically causes significant harm to patients.

BUMPING AND MEDICAL OVERUSE

Medical overuse, or just *overuse* for short, is 'the provision of medical services for which the potential for harm exceeds the potential for benefit'.[11] In this section, I will argue that we have reason to believe that doctors bumping their patients is a contributing cause of overuse. I will limit my discussion in the following to the cases of overuse where it is the potential for harm *to the patient* that exceeds the potential for benefit *to the patient*, but most of the discussion is applicable to the more general sense of overuse as well.

A number of factors contribute to overuse: poor coordination across services can lead to duplication of tests, and patients tend to overestimate the benefits of tests and treatments.[12 13] However, the influence doctors have on their patients is a major factor. One reason doctors may influence their patients towards overuse is that doctors themselves routinely overestimate the benefits and underestimate the harms of medical tests and treatments.[10 12 14] Additionally, doctors sometimes have reasons to want their patients to be tested and treated that have little to do with what would benefit the patients. Several important factors systematically incentivise doctors to influence their patients towards overuse. These include fear of malpractice litigation (defensive medicine), the influence that special interest groups like the medical equipment and pharmaceutical industries have on doctors and financial incentives related to the provision of medical services.[12 15 16] The discussion below will, for simplicity, focus on financial incentives but similar lines of argument could be applicable to the others factors as well.

Part of the role that doctors influencing patients have in explaining overuse is well studied under the name of *physician-induced demand* (PID), which according to Thomas McGuire: 'exists when the physician influences a patient's demand for care against the physician's interpretation of the best interests of the patient'.[17][xiii] The evidence for the existence and significance of PID is quite compelling.[17] For example, one study found that physicians who experienced a loss of income compensated for 10% of their income loss by performing more caesarean sections (C-sections), as C-sections were more profitable for them than vaginal delivery.[17] In the econometric research on PID, great care is taken to ensure that what is measured actually is the non-beneficently motivated influence of doctors on patients as opposed to some other effect. However, crucially for the present discussion, the concept of PID does not discriminate between *the ways in which doctors might influence their patients' demands*. This means the evidence for PID towards overuse is consistent with the causal mechanism of PID being any combination of intentional, unintentional, rational or non-rational influence. One hypothesis consistent with these findings is therefore that part of the causal mechanism of overuse due to PID is doctors bumping their patients. The bumping-causes-overuse hypothesis (BCO) is the central thesis of this paper.

The main rival to BCO is the hypothesis that intentional influence, whether rational or non-rational, is the sole causal mechanism of overuse due to PID. One reason to think that the only-intentional-influence hypothesis (OII) is true, is that we have some evidence that intentional influence is at least part of the mechanism, in the form of doctors admitting to having let non-beneficent motives influence their treatment of patients.[18] However, once we realise that doctors have beliefs and motivations that dispose them to intentionally influence their patients towards overuse and that they sometimes do, there is good reason to assume that these same beliefs and motivations will also dispose them to do so *unintentionally*. If we want to accept OII, we have to deny the notion that beliefs and motivations often bias our behaviour even if we do not intend them to, or at least deny that it applies to the particular case of doctors influencing their patients towards overuse.

Research on doctors and implicit bias shows that there is a tendency for doctors to unintentionally, but systematically, discriminate against patients by ethnicity and gender.[19] Although this does not count as direct evidence specifically against OII, it does indicate that one cannot ignore unintentional behaviour when accounting for how doctors treat their patients. With this in mind it seems reasonable to deny OII, and accept that BCO is likely to be true, although further more specific empirical research is needed to assess the issue.

We may also add that if we deny OII, thus allowing that unintentional influence can be a cause of overuse, it seems likely that bumping rather than unintentional *rational* influence, is the main part of this, as rational influence is usually easier to detect and correct. Consider: a doctor who attempts to present the facts about the risks and benefits of C-sections in a way that is not biased by her financial incentives to do C-sections would be unlikely to *unintentionally* provide additional statistics that support doing C-sections, and if she did, she might well notice and compensate. However, she might well be likely to unintentionally frame the statistics in a way that subtly emphasises the benefits of the drug, unintentionally alter her body language and tone of voice in ways that increase the salience of the benefits, and so on, and this would be markedly harder to detect.

In sum, existing research gives us good reason to believe that doctors bumping their patients could be a significant factor contributing to overuse, although further empirical research is needed.[xiv]

The harms of medical overuse

Medical overuse is, by definition, more likely to harm than benefit patients, but a discussion of *how* it can be harmful might be illuminating. Overuse can be seen as an umbrella term that mainly encompasses concepts like *overtesting* and *overtreatment*. Overtesting and overtreatment are, respectively, the provision of medical tests and treatments for which the potential for harm exceeds the potential for benefit. The harms of overtesting and overtreatment are serious and include unnecessary economic costs, pain and discomfort resulting from the test or treatment itself, as well as the risks of complications and side effects, which can include anything from mild rashes to major loss of function and even death.[11]

[xiii] Thus defined, PID can go in the direction of *underuse* as well as overuse, which it seems to do when the financial incentives go in that direction, but the usual and better-documented case is that which goes towards overuse.[17]

[xiv] Thanks to an anonymous reviewer for pressing me on this point, which, I believe, greatly enhanced the discussion in this section.

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Less obviously, overtesting increases the risk of *overdiagnosis,* which happens when a patient is diagnosed with a medical condition that, absent the diagnosis, would not have caused any harmful symptoms. Sometimes this is the result of a false-positive test result. However, overdiagnosis also happens in cases where the patient *has* the condition, but no harm would have resulted from it were it not for the diagnosis. For example, in the case of cancer, this can occur when a test detects a cancer that will never progress to the point of causing harmful symptoms. Many types of cancer tests often result in overdiagnosis of this kind, as tests typically cannot determine the rate at which a cancer will progress.[20 21]

Overdiagnosis can lead to overtreatment, but it also comes with its own set of harms. For example, fear and pain may result from a mistaken cancer diagnosis, and alienation and stigma could result from a mistaken diagnosis of HIV.[22] In some cases, being diagnosed with a condition you do not have can even result in experiencing the symptoms associated with that condition as a result of the nocebo effect. For example, being diagnosed with lactose intolerance can result in you experiencing abdominal pain after ingesting substances you believe contain lactose, even if you do not actually lack the enzyme to digest lactose.[23]

Bumping likely causes systematic harm

The discussion above gives us reason to think that doctors bumping their patients is a factor contributing to overuse, and that overuse causes significant harm. More specific empirical studies are required to assess exactly how large a factor bumping is as compared with intentional influence and unintentional rational influence,[xv] so we cannot definitively say how big the problem of harmful bumping is. Still, the discussion above shifts the burden of proof towards anyone who would argue that bumping does *not* cause systematic harm. It is likely that bumping is a significant and systematic causal factor in many other phenomena as well—medical underuse, for example—but I take it that the case of medical overuse conclusively demonstrates that bumping is worth discussing.

BLAMEWORTHY BUMPING

Even if bumping is a significant phenomenon, one might think it is not an apt target for moral appraisal. Since doctors do not bump their patients on purpose, they cannot be blamed for it. In fact, there is a rich philosophical literature on the topic of moral responsibility for unintentional action or omission.[24–31] Although the philosophical positions are many and varied, there is a degree of consensus that, in so far as one can be blameworthy for anything, there are some cases where one can be blameworthy for something one did unintentionally. Below I will present a sketch of an account on which a doctor could be blameworthy for bumping her patients.

Bumping as reckless or negligent behaviour

An important notion in the literature on moral responsibility is that of *tracing*.[28 31 32] The idea stems from an attempt to explain certain seemingly contradictory intuitions:

1. Certain sorts of circumstances seem to render us blameless—more specifically, circumstances characterised by *relevant ignorance* and/or *lack of control*. *Examples: (Ignorance) Porcius poisons Halim by serving him a cup of coffee, which, without her knowledge, turns out to contain poison. (Lack of control) Miyu veers off the road and hits a pedestrian because she is paralysed as a result of a sudden haemorrhage in her brain.*
2. Sometimes agents are blameworthy despite being relevantly ignorant or lacking control. *Examples: (Ignorance) Bence shoots Iokua in the chest because she thought the gun was not loaded. (Lack of control) Žaklina veers off the road and hits a pedestrian because she is too drunk to drive properly.*

Roughly, the idea is that an agent is blameworthy for an action that is characterised by relevant ignorance and/or lack of control only if that action can be traced back to a blameworthy action or omission that was not characterised by either relevant ignorance or lack of control. So Bence is blameworthy for shooting Iokua because she is blameworthy for not checking whether the gun was empty, and Žaklina is blameworthy for hitting the pedestrian because she is blameworthy for starting to drive while drunk (alternatively, for getting so drunk that she chose to do so in the first place). In contrast, Porcius is not blameworthy for not checking the coffee for poison (unless coffee poisoning is common in her line of work) and Miyu is not blameworthy for driving while being the victim of a sudden haemorrhage (unless she knew when she started to drive that she was likely to have such a haemorrhage at any moment).

Generally, the intentional actions and omissions that blameworthy unintentional actions and omissions trace back to come in two categories: *reckless* behaviour and *negligent* behaviour.[xvi] Reckless behaviour is behaviour that exposes people to a morally unjustified amount of risk. If a doctor chooses not to wash her hands before a surgical procedure, she may not intend to cause an infection, but she is nevertheless responsible for exposing her patient to an increased and easily avoidable risk. The same would be the case for a doctor who knows about the harms of medical overuse and knows that she might bump her patients in ways that contribute to overuse, yet chooses not to take any precautions against such bumping. She is exposing her patients to increased risks of overtesting, overtreatment and overdiagnosis when this could be avoided if she took the right steps.

Now, the idea of 'bumping' is not generally known—it was, after all, introduced in this article. Doctors cannot be faulted, therefore, for not knowing about the phenomenon *under that description*. Still, the phenomenon of medical overuse is well documented, and as of 2018, it is reasonable to expect doctors to know about it and the fact that it is caused in large part by the problematic influence doctors have on their patients. The way that patient decision-making is affected by non-rational influence in a variety of forms is also well known. Therefore, most doctors should already know enough to infer that not taking precautions against unintentionally non-rationally influencing their patients will expose their patients to risk. Doctors who know this and still choose not to take precautions are acting recklessly.

Now, some doctors do not know enough about overuse or non-rational influence to reach the appropriate conclusions. And some have perhaps simply not taken the time to think about

[xv] Though designing studies to examine this might prove challenging.

[xvi] Note that I neither here nor in the following am speaking of the legal notions of recklessness and negligence, but rather of their non-legal counterparts.

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the implications for how they ought to treat their patients. By looking at the second category of behaviour that can ground blameworthiness for unintentional actions, we can argue that doctors who do not realise that they ought to take precautions against harmful bumping, can nevertheless be blameworthy for failing to do so.

Negligence often involves a morally unjustified omission of acquiring knowledge, which normally takes the form of *the violation of an epistemic duty*. In the following, I will use 'negligence' to refer only to this type of behaviour.[xvii] Duties to acquire knowledge exist in many forms. They can be completely general, such as the duty to ensure that you have adequate knowledge about the ramifications of an action you intend to perform before performing it. For example, if I intend to eat a sandwich on the table, I ought to check whether the sandwich is mine so I will not be stealing someone else's food.

Often, duties to acquire knowledge are duties one has in virtue of occupying a *role*. If you are a teacher, you have a duty to acquire an adequate amount of knowledge about the subject you are teaching. If you are a doctor, you have a duty to acquire an adequate amount of medical knowledge, the knowledge that is required to perform adequately in the role of doctor. But performing adequately as a doctor requires more than just medical knowledge, narrowly conceived.

It is widely agreed that being a doctor involves being bound by a duty of *non-maleficence*,[33] which in turn involves being bound by a duty to avoid harming one's patients. Clearly, this duty is not absolute, as some degree of harm is usually an inevitable part of most treatments doctors can provide. At minimum, however, adhering to non-maleficence involves minimising unnecessary harm.[xviii] It is clear that it is impossible, or at least extremely hard, to fulfil this duty without appropriate knowledge. We can, therefore, say that the duty of non-maleficence implies the epistemic duty of acquiring the knowledge required not to subject one's patients to unnecessary harm. Failure to acquire such knowledge constitutes negligence, and when the patient is harmed as a result, the doctor is blameworthy even if she did not intend to harm the patient and did not know that what she was doing would harm the patient.

Blameworthy bumping can thus come in two varieties: either it can be a downstream consequence of recklessly omitting to take precautions against harmful bumping, or it could be a downstream consequence of negligently omitting to acquire knowledge about the harms that can result from bumping and how to prevent them.[xix]

The scope of epistemic duties

Epistemic duties are tricky because unless they are restricted in scope, they become incredibly *demanding*. Being too demanding is often seen as a strong, perhaps decisive, reason to reject a duty as being morally binding.[34] To see why the epistemic duty of acquiring the knowledge required to avoid harming one's patients might be subject to such an overdemandingness-objection, consider the fact that there might be, and probably are, countless things doctors do that are actually harmful to their patients, but that nobody knows is harmful. This is because medicine is an ever-evolving field that lies at the horizon of human knowledge where the established truths of today may turn out to be rejected tomorrow.

Doctors' epistemic duties, therefore, have to be restricted in scope to reflect the fact that the relevant knowledge may be *available* to a greater or lesser extent. This *availability constraint* means that knowledge that would be impossible or excessively difficult to acquire is not something that an epistemic duty can require of you. This obviously means that doctors are not required to know the results of future research, but it also means that doctors might not be required to know about research that is not obviously relevant to their practice. It is, after all, excessively hard, if not impossible, to keep up with all areas of research that *could* be relevant to their practice. We might therefore rightly hesitate to blame doctors for not keeping up with the research in econometrics and social psychology that, in part, underlie the arguments in this paper.

As should be obvious from the discussion above, the availability of any particular piece of knowledge is a matter that is subject to change. We can say that availability is relative to the epistemic status of society at large, which is determined, among other things, by the progress of the sciences. Availability, then, has an upper ceiling that coincides with the current state of the sciences, and it will shift as the state of the sciences shifts. As more and more research is published about the impact of heuristics and biases in decision-making, and especially as researchers are drawing the dots between these findings and medical practice,[35] and as this research becomes more and more widely known, it will become harder and harder for doctors to use lack of availability as an excuse for not knowing enough to realise that they could be harming their patients by bumping them.

Of course, local features of the epistemic environment also matter, so if the doctor lives in a country where medical practitioners do not have access to the research that would help her to realise the harms of bumping, she might still have a valid excuse. Moreover, much, perhaps most of the responsibility lies with the institutions that educate and certify medical practitioners, to ensure that doctors have the right skills to acquire the knowledge they need. If a doctor does not possess the knowledge, she needs simply as a result of poor education, she might not be blameworthy, because, in a sense, the knowledge is not available to her.

Is harmful bumping avoidable?

So far, we have established that doctors are not off the hook for harmful bumping even if they do not know they are doing it. But what if there is nothing doctors can reasonably do to reduce harmful bumping? If this were the case, doctors could not be blameworthy for bumping. This could play out in a few ways. For example, we could imagine that it would require superhuman skill or effort to avoid or reduce harmful bumping so that it would be unreasonably demanding to blame doctors for not doing it. Furthermore, we could imagine that it was necessary for doctors to cause harm through bumping in order to adequately perform their clinical work, just as it is necessary for a nurse to cause some harm by sticking you with a needle in order to administer a vaccine. Finally, we could imagine that the actions required to avoid harmful bumping would cause some equivalent or greater harm.

I believe that there is little reason to think that any of these scenarios obtain. Some completely benign and obvious measures one can take to reduce the effects of bumping are available.

[xvii] While 'negligence' ordinarily just means lack of appropriate care, I am here using it in the sense of lack of appropriate *epistemic* care. This means that my usage does not map perfectly on to the ordinary sense of medical negligence.

[xviii] It probably involves quite a bit more than this: minimising necessary harm and avoiding unnecessary harm are probably also required by non-maleficence.

[xix] It could also, perhaps, be a consequence of recklessly cultivating a habit of harmful bumping.

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Moreover, these are part and parcel of measures that are already being promoted in order to promote doctor-patient communication and decision-making.

The most obvious step a doctor can take to reduce harmful bumping is to be mindful of the way she communicates with her patients. If one knows that framing matters to the way information is perceived, just trying to avoid framing things in a way that might lead patients to overestimate benefits and underestimate harms is likely to be successful. It really is not much more complicated than this. When we know we are prone to doing something, applying some effort and trying to avoid doing that thing is usually at least partly successful. It hardly seems too much to demand of doctors that they at least attempt to present information about risks and benefits in an unbiased way.

Mere trying might, of course, not be enough. The demands of clinical practice are substantial, and doctors may not be able to afford the effort it would require to constantly monitor their body language and every turn of phrase. As such, if the only way to avoid harmful bumping is such hypervigilance, doing so might well be too demanding. However, as we shall see, powerful systematic ways to combat harmful bumping are already built into a practice that doctors have many independent reasons to follow.

The old-fashioned authoritarian model of doctor-patient communication almost certainly increases the likelihood of harmful bumping. When the doctor presents the treatment options in an authoritative tone of voice and the patient is reduced to a mere receiver of information, who at the end of the doctor's monologue is supposed to make a choice, or perhaps simply consent to the doctor's recommendation, it is very likely that the patient's decision will be heavily influenced by non-rational factors. For one thing, it is unlikely that the patient's understanding of all the relevant factors is much more than adequate after such a monologue, which means that the impact the relevant reasons have on the patient's decision will be relatively low. A low impact of rational factors will increase the relative impact of non-rational factors. For another, the less extensive the communication between doctor and patient is, the more likely it is that a single unintended bump will affect the outcome. In order to systematically combat harmful bumping, therefore, it is crucial to improve both the quality and quantity of doctor-patient communication and to improve patient understanding. All of these measures to combat harmful bumping are already integral parts of the model of clinical practice known as *shared decision-making*.[36]

There is some highly suggestive indirect evidence that shared decision-making decreases the harmful effects of bumping. According to a large Cochrane review, the use of decision aids[xx]—a key component of shared decision-making—was associated with two factors that indicate a reduction in overuse: a reduction in the people who chose to undergo major elective invasive surgery and in the people who chose prostate-specific antigen screening (PSA-tests).[37] PSA-tests are one of the primary causes of overdiagnosis of cancer,[38] and surgery is often an overused therapeutic procedure.[11]

An important feature of these ways of preventing harmful bumping is that their effect is to reduce the impact of bumping *in general*, rather than targeting specific instances of harmful bumping. This means that it makes sense to implement them even if we cannot say with great specificity in exactly which situations bumping will be harmful. If the precautions required more specific knowledge, it would indeed be too demanding to say that doctors have a responsibility to implement them, as this knowledge is, at least as of yet, not available.[xxi]

Harmful bumping, in general, can be mitigated through the application of shared decision-making procedures like the use of decision aids, and through the application of some effort to try to avoid it. Unless we think that both of these measures are too costly or difficult for doctors to implement, we should conclude that doctors can and should mitigate harmful bumping.

Doctors can be blamed for harmful bumping

So far, I have argued that doctors who systematically bump their patients towards harm can be blameworthy because this behaviour sometimes falls under the categories of recklessness or negligence. I have argued that medical overuse presents us with concrete cases of blameworthy bumping. Overuse is likely in part explained by doctors bumping their patients. Doctors who bump their patients towards overuse are blameworthy for this because bumping their patients towards harm constitutes a violation of the duty of non-maleficence. Either doctors know that they are bumping their patients towards harm and do it anyway, which would constitute recklessness and hence be blameworthy, or they do it unknowingly, which means that they might have violated the epistemic duty that is implied by the duty of non-maleficence, which would constitute negligence and hence be blameworthy.

The upshot of this is that doctors have a responsibility to mitigate harmful bumping. Although the specific connection between bumping and medical overuse has not been directly empirically examined, the argument for the connection (as presented in 'Bumping and medical overuse' section) is, I suggest, strong enough to justify a responsibility to take preventive action, at least when effective preventive measures are easily and cheaply available, as discussed in 'Is harmful bumping avoidable?' section. Moreover, as mentioned, some of these measures are backed by compelling empirical evidence. As of now, this just means that doctors should take the above-mentioned measures to prevent bumping in general. One could also argue that doctors should take special care when it comes to cases that are known to be especially prone to overuse, such as total knee replacements and hysterectomies,[11] although the more specific we get, the more the lack of specific empirical research on the connections between bumping and overuse diffuses doctors' responsibilities. Still, the argument herein at least gives doctors yet another reason to look at the growing literature on overuse to get a picture of the most critical cases. It also gives researchers reason to examine the connections between bumping and overuse, so measures that are more specific could be implemented.

BUMPING AND AUTONOMY

The argument in the previous sections turned on the fact that bumping can be systematically harmful. The harms mentioned have included pain, stigma, economic costs, uncomfortable symptoms and death. All of these are fairly concrete. There is, however, a more nebulous yet no less important type of harm that it is likely that bumping causes, namely loss of autonomy.

[xx] These are pamphlets, videos or web-based tools intended to improve patient understanding.

[xxi] It also means that other ways in which bumping could be harmful, such as bumping towards medical *underuse* are addressed by the same precautions.

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Although this is not the place for a full discussion of this issue, it seems clear that unintentional non-rational influence can negatively impact autonomy.

According to most theories, autonomous decision-making depends in some way on the involvement of successful rational processes internal to the agent. This is sometimes cashed out in terms of the agent's capacity to respond to reasons,[31] and sometimes in the agent's capacity to understand and make correct inferences about the issues in question.[39] If these processes are bypassed or interfered within the time leading up to and including the moment of a decision, the degree to which that decision was autonomous might be reduced.

Non-rational influence, by definition, either bypasses rational capacities or exacerbates irrational tendencies. This means that it is likely that decisions made while being bumped are less autonomous than those made without such influence. This worry is parallel to a worry that is sometimes raised in discussions of nudging.[2–5] One way to cash out the worry is as follows: decisions are autonomous only to the degree that they have the right sort of relation to the deciding agent's rational capacities, where this amounts to something like the decision being the product of the agent's working rational capacities. In other words, the less the agent's working rational capacities contribute to producing the decision, the less autonomous it is. This is a simplified picture, but it is sufficient for present purposes. Since non-rational influence affects decision-making by either bypassing the agent's rational capacities or exploiting their failures, decisions produced under non-rational influence will be less a product of the agent's working rational capacities, and hence less autonomous.[xxii]

There are at least two ways in which we might think that negative impact on autonomy could be problematic: (1) one could think that autonomous decision-making is good in itself and that any negative impact on it is *ipso facto* problematic, (2) one could think that autonomous decision-making is crucial to ensure certain other things, notably *informed consent*. According to Ploug and Holm,[5] nudging is inappropriate in domains where informed consent is sought, precisely because informed consent 'is a particular method for protecting personal autonomy' (p. 37).[5] If the argument holds for the case of nudging, there is good reason to think that it should hold for bumping as well, with one important caveat.

One might think that the reason nudging is a threat to autonomy is that it involves the imposition of one agent's will on another because the influence is intentional. If this is the case, bumping seems to fall by the wayside, as it is per definition unintentional. Although many people seem to think that the fact that there is a foreign will behind the influence makes a big difference, it is surely not the sole factor that makes nudges threatening to autonomy. If we buy anything close to the story above about non-rational influence affecting autonomous decision-making, then we should agree that bumping could *also* negatively affect autonomous decision-making.

If bumping is potent enough to cause systematic harm to patients through contributing to overuse, bumping surely also impacts patients' autonomous decision-making. And if one thinks that nudging is problematic in contexts of informed consent, one should also think that bumping is at least somewhat problematic.

CONCLUSION

I have argued that bumping, which is unintentional non-rational influence, can cause systematic harm in certain contexts. The way that doctors' influencing their patients contributes to medical overuse is one such case. Even though bumping is unintentional per definition, doctors can be blameworthy for bumping their patients, in the ways that modern theories of moral responsibility account for blameworthiness for unintentional actions and omissions, namely through tracing these unintentional actions and omissions back to previous intentional actions and omissions for which they were responsible.

Doctors who bump their patients towards harm can be either reckless, because they intentionally omitted to take precautions to prevent such bumping, or negligent, because they intentionally omitted to inform themselves about the effects their unintentional influence can have on their patients and the steps they could take to avoid this. Although bumping is a term coined in this paper, the phenomenon of unintentional non-rational influence is not new or by any means unknown. Doctors are therefore not all the way off the hook because they could not have been expected to know about bumping. Furthermore, the best ways to avoid harmful bumping are readily available to doctors, in the form of simply applying some effort to avoid doing it, and in the form of the procedures of shared decision-making. One main takeaway from this essay could thus be that the phenomenon of harmful bumping is yet another reason to promote shared decision-making.

Still, perhaps the most important contribution I hope to have made with this paper is the introduction of the idea of bumping to the literature. Neither the idea of the relevance of non-rational influence[2–7] and heuristics and biases[14 15 35] to the clinical context nor the idea of doctors unintentionally influencing their patients is new,[8] but as far as I know, no one has yet made the connection between these phenomena explicit. The idea of bumping, therefore, fills an important conceptual gap that should open new avenues of empirical and philosophical research. Hopefully, capturing the idea with this somewhat catchy term will also make more doctors, and others, consider how their unintentional influence could cause harm, and so lead to a reduction of harmful bumping.

I want to note at the end that I consider this paper's focus on the individual blame of doctors to be a somewhat unfortunate consequence of the rhetorical structure of the paper. Doctors already have enormous responsibilities on their shoulders and are hence subject to quite a bit of moral stress. Even though it is true that individual doctors are responsible for their behaviour, it is often more productive to focus on the institutions that are responsible for their education and for delineating the legal and practical foundations of their practice. If the harms of bumping are to be effectively combated, these institutions have to do their part in addressing the problem.

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[xxii] As an anonymous reviewer points out, a related concern is that bypassing rational capacities undermines freedom and moral responsibility.[40] If *all* of an agent's mental processes are bypassed, the case is clear. For example, if I physically shove you out of the room, you did not freely leave the room, and neither are you responsible for doing so. If only rational capacities are bypassed, as is the case with bumping, it is less clear whether your leaving the room was free or something you are responsible for, as you leaving the room could still have been the result, say, of your wanting to leave the room. As such, whether bumping undermines freedom is an interesting question, but far too complicated for me to do it justice here.

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