Article

Nudge the judge? Theorizing the interaction between heuristics, sentencing guidelines and sentence clustering

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Abstract

Although it has long been acknowledged that heuristics influence judicial decision making, researchers have yet to explore how sentencing guidelines might interact with heuristics to shape sentencing decisions. This article contributes to addressing this gap in the literature in three ways: first, by considering how heuristics might help produce the phenomenon of sentence clustering, in which a significant proportion of sentences are concentrated around a small number of outcomes; second, by reflecting on the role of sentencing guidelines as a feature of the environment within which sentencing decisions are made; and third, by analysing the guidelines from Minnesota and from England and Wales, theorizing how their content might interact with heuristics to make clustering more or less likely. Ultimately, we argue that sentencing guidelines likely affect the role played by heuristics in shaping sentencing decisions and, consequently, that their design should be informed by research evidence from the decision sciences.

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Introduction

Sentencing is a complex cognitive task. Judges are required to recognize differences between offenders and between criminal cases, to identify and assign weight to a variety of aggravating and mitigating circumstances and to select a sentence outcome from a wide range of available options (Ashworth, 2015), all while trying to reconcile several (often conflicting) principles and goals (Dhami et al., 2015). We expect judges both to utilize a consistent decision-making process and to sentence offenders in accordance with each case's unique characteristics (Pina-Sánchez, 2015). However, empirical research consistently unearths evidence of sentence clustering, whereby terms of imprisonment are clustered around a small number of specific sentences (e.g. six, 12 or 18 months) (Bottomley and Pease, 1986; Fitzmaurice and Pease, 1986; Jones and Rankin, 2015; Roberts et al., 2018). This is problematic, insofar as it indicates that judges may be treating offences of different seriousness and offenders of varying culpability in a uniform manner, undermining the principle of individualization. Although sentence clustering is a well-documented phenomenon, researchers have yet to develop sufficient theoretically- and empirically-informed hypotheses as to why it exists (Roberts et al., 2018).

This article argues that we should draw on research from the decision sciences in order to help explain why sentence clustering occurs and how individualization and other normative goals might be promoted within sentencing. Specifically, we consider the possible role of heuristics – a group of cognitive shortcuts which humans use to make decisions (Shah and Oppenheimer, 2008) – in causing sentence clustering. We also examine sentencing guidelines in order to hypothesize how they might exacerbate or mitigate the phenomenon of clustering, depending on how their content interacts with judges' heuristics during the sentencing process. Dhami (2013a, 2013b) has observed that the design of sentencing guidelines is insufficiently informed by the psychology of decision making. By investigating one of the hitherto neglected dimensions of this complex policy area, we seek to add to the literature on how guidelines might aid sentencers in refining their decision-making processes.

This article begins by explaining what heuristics are and exploring how they might contribute to sentence clustering. It then proposes that guidelines are increasingly a feature of the environment in which sentencing decisions are made, forming part of the 'choice architecture' (Thaler and Sunstein, 2009) of sentencing in jurisdictions where they are in force. Next, the article presents an original analysis of two distinct sentencing guidelines from (1) Minnesota and (2) England and Wales, theorizing how their content might interact with heuristics so as to exacerbate or mitigate clustering. It concludes by considering how 'nudge theory' (Thaler and Sunstein, 2009) could assist those who design sentencing guidelines to promote individualization. Ultimately, we argue that, in order to reduce the effects of heuristics on the sentencing process, policy-makers should more strategically organize the environment in which judges make sentencing decisions.

Heuristics, Sentencing and Sentence Clustering

Our ability to engage in rational decision making is constrained by the parameters of our cognition. As Shah and Oppenheimer (2008: 207) argue, humans 'do not have unlimited

processing capacity'. Rather, our rationality is 'bounded' (Simon, 1990) by our capacities to acknowledge and retain information, and to interpret and weight impartially the information which we do identify. We also tend to suppress doubt, neglect ambiguity and accept or reject information depending on whether it conforms with our current beliefs (Kahneman, 2011). Essentially, we 'jump to conclusions' and use 'rules of thumb' when making decisions, without fully and fairly processesing all of the relevant, available information. These limitations of our processing abilities are exacerbated by our tendency to underestimate the likelihood that our decisions are based on imperfect cognition (Kahneman, 2011).

The consequences of this 'bounded rationality' are often minor, insofar as most of the decisions that we make in our day-to-day lives are relatively inconsequential (Simon, 1990). As key gatekeepers to (criminal) justice, however, sentencers make decisions in their working lives which have significant, long-term implictions for offenders and victims, their families and wider society (Lipsky, 2010). It is necessary, therefore, to consider how these cognitive constraints might make it more or less likely that the goals and principles of sentencing will be realized in practice.

This article focuses on how heuristics might cause or exacerbate the phenomenon of sentence clustering. Assuming that no two criminal cases are exactly alike, a perfectly individualized sentencing process would result in a smooth continuum of sentences which reflect all the nuances and differences between the cases brought before the court. Instead, sentencing data tend to suggest that a small number of specific sentences are given to a significant proportion of cases (Bottomley and Pease, 1986; Fitzmaurice and Pease, 1986; Roberts et al., 2018). In a recent study of sentencing in England and Wales, for example, Roberts et al. (2018) found that just five sentences (one year; one-and-a-half years; two years; six months; and eight months) accounted for around 40% of 6743 assault cases sentenced to immediate custody in 2011; 10 sentences accounted for over half (56%) of that sample. While it is not possible to determine objectively how much clustering is 'too much', the growing importance placed on individualized sentencing (e.g. Berry, 2016) means that these levels of clustering warrant further attention. Sentence clustering is antithetical to individualization: the more clustering we observe, the less likely it is that sentence outcomes reflect the unique nature of each case or are proportionate, relative to each other (Berry, 2016; Roberts et al., 2018). In other words, the presence of significant sentence clustering may signify that varying levels of harm and culpability are being treated as equivalent by the courts.

We can turn to Shah and Oppernheimer's (2008) conceptualization of heuristics in order to consider how they might contribute to this phenomenon. They define heuristics as cognitive shortcuts which reduce the amount of time and effort required in coming to a conclusion. These shortcuts include: failing to identify or acknowledge all of the relevant information; failing to store or recall information; weighting competing information arbitrarily; excluding relevant information when forming an overall impression of the alternatives; and examining only a subset of the potential decision options (see also Gigerenzer and Gaissmaier, 2011). According to Gilovic et al. (2002), understanding decision making in any context requires an acknowledgement of the role played by heuristics. Yet, in criminal justice, we often examine (and are quick to criticize) practitioners' decision making without reflecting on the cognitive biases which structure their

thinking. For example, we discuss racial and social profiling by the police without reference to the innate human propensity to make prejudicial assumptions based on the social-psychological processes of stereotype formation – what Smith and Alpert (2007: 1273) refer to as the 'illusory correlation phenomenon'. The same is true in debates on sentencing, in which sentencers' decision making is appraised and policies introduced to structure their discretion, without full consideration given to the underlying cognitive processes which shape their thinking (Dhami, 2013b).

We can easily theorize how heuristics might shape sentencing in ways which contribute to clustering. Consider, for example, the tendencies to take into account less information than is available and relevant, to forget some of the information which was initially selected for processing and to weigh up fewer decision options than exist. In Shah and Oppenheimer's (2008: 210–212) words, these heuristics might mean that sentencers use 'only a small subset of the available information when making judgments' and 'examine or compare fewer alternatives' than exist when selecting the outcome. As a result, clustering might occur or be exacerbated – and individiualization might suffer – if differentiating circumstances of criminal cases are neglected or forgotten by sentencers and/or if some sentencing options are overlooked or rejected without due consideration as to their applicability.

The literature which applies heuristics to court decisions further illustrates how heuristics might cause or exacerbate sentence clustering. Several studies, for example, found that judges seldom identify and remember all the information which makes cases distinct. Dhami and Ayton (2001) observed that bail decisions often omit relevant factors, while Arce et al. (2001) suggest that sentence disparities in similar cases might be attributed to differences in judges' (in)abilities to encode, store and retrieve all the relevant information. Von Helversen and Rieskamp (2009) found that prosecutors also consider only a small subset of the legally relevant and important factors when recommending sentences, arguing that their cognitive constraints might help explain why important factors are often overlooked. The point is that judges likely fail to identify or remember all of the differentiating factors in each case, limiting their ability to distinguish between cases during sentencing and increasing the chances of differing cases incurring the same sentence outcome.

Peer and Gamliel (2013: 118) note that sentencing might also be shaped by heuristics because of 'the dominant effect of anchoring'. Anchoring is a type of heuristic in which decision-makers consider fewer outcome alternatives than exist, as their thinking becomes 'anchored' around a value with which they are presented (Mussweiler et al., 2004). This value becomes an initial estimate which decision-makers then 'adjust' in order to find an acceptable outcome (Saks and Kidd, 1980). Anchoring is one of the most robustly studied and influential biases on numerical decision making (Kahneman, 2011; Mussweiler et al., 2004), and research suggests that it impacts judicial decisions. For example, Englich and Mussweiler (2001) found that experienced judges gave wildly different sentences to similar cases, depending on the sentence requested by prosecutors. Another study found that judges were 'anchored' by journalists' suggestions despite their legal irrelevance (Englich et al., 2006), while Guthrie et al. (2001) found that civil courts gave significantly lower damage awards when anchored by a defendant's motion to do so. Thus, if judges were exposed to a consistent anchor in the

sentencing process, we might expect this to contribute to clustering: the anchor would become the initial estimate which judges then adjust to determine the sentence in each case. As we shall see later, the starting points provided in sentence guidelines could act to trigger this heuristic.

We might expect judges to be skilled at identifying and remembering relevant factors and assessing varying outcomes for their applicability. After all, it is precisely this 'art' in which they are trained, and on which fair sentencing depends. Still, heuristics seem likely to influence sentencing in ways which limit the judges' ability to differentiate between cases. The stronger the influence of these heuristics on sentencing decisions, the more generic and uniform we might expect sentences to be (Alschuler, 2005). Conversely, the more we can reduce the influence of heuristics on sentencing decisions, then the more case characteristics and outcomes which judges might consider, and the more likely it should be that sentences come to reflect the unique features of each case, occasioning more individualized sentencing. To consider this subject further, we now explore the role which sentencing guidelines play in shaping sentencing decisions, before theorizing how they might act to exacerbate or mitigate the cognitive barriers to individualization.

Sentencing Guidelines as Choice Architecture

For decades, empirical research from the decision sciences has shown how the environment in which decisions are made, interacts with heuristics and other cognitive biases to shape those decisions. This research was summarized by Richard Thaler and his colleagues who coined the term 'choice architecture' to refer to the 'context in which people make decisions' (Thaler and Sunstein, 2009: 3; see also Thaler et al., 2013). They also used the term 'choice architects' in reference to the people who organize or design that context, and who therefore shape decision making. Importantly, Thaler and Sunstein (2009) argued that there is no neutral way to design choice architecture: environments necessarily influence decision making, irrespective of whether they are designed with any consideration as to their effects.

The choice architecture of sentencing includes a range of more or less tangible features, including the time pressures and legislative and precedential frameworks under which judges operate, and the representations from those involved in arguing cases, inter alia. We would also argue that, in jurisdictions where judges are compelled or expected to use sentencing guidelines to guide their decision making, these guidelines are part of the sentencing choice architecture. Given that sentencing guidelines are now proliferating around the world (Roberts et al., 2018), therefore, it is important to consider how their interaction with heuristics might shape sentencing decisions.

Here, we investigate the potential interaction between heuristics and guidelines in two jurisdictions: (1) Minnesota and (2) England and Wales. These jurisdictions are the subject of recent research in this field (see, for example, Roberts et al., 2018) for three reasons: (1) their different guideline models are used to exemplify distinct approaches to guideline design (Reitz, 2013); (2) they are, as common law jurisdictions in the Anglo-American world, reasonably comparable; and (3) they both publish enough numerical data to enable advanced quantitative analysis on sentencing outcomes.

In both Minnesota and England and Wales, guidelines are central to the sentencing process. Minnesota was the first US state to create legally binding guidelines which have since served as a model for several other states, including Pennsylvania and Oregon (Frase, 2005). They are designed in a 'grid' format: a two-dimensional structure, with crime seriousness along one axis (composed of 11 levels), and criminal history along the other (composed of seven levels). All offences must be assigned to one of the 11 offence seriousness levels, before the offender is given a 'Criminal History Score' running from '0' to '6 or more', depending on their prior convictions. The grid then provides either a presumptive stayed (i.e. suspended) sentence (for less serious offences) or a starting point and sentencing range at the intersection of each row and column (for more serious offences and recidivists). For example, a conviction for a seriousness level-six offence by an offender with a category-three criminal history, results in a 34- to 46-month term of imprisonment (Minnesota Sentencing Guidelines Commission, 2016); the same offence by an offender without a criminal record would only attract a 21-month suspended sentence. Importantly, the guidelines are mandatory and sentencers can only deviate from the prescribed ranges if 'substantial and compelling circumstances [are] identified and articulated' as to why they must do so (Minnesota Sentencing Guidelines Commission, 2016: 2).

Guidelines in England and Wales, in contrast, are offence-specific. The first definitive sentencing guidelines came into force in 2007, addressed offences of assault and consisted primarily of narrative text (Ashworth and Roberts, 2013). In 2011, the Sentencing Council replaced the original assault guidelines with a new design, requiring sentencers to follow a series of structured steps (Dhami, 2013a, 2013b). This new format was used to revise all previous guidelines and has been used for all subsequent sentencing guidelines. Guidelines have since been issued for several further offences, including burglary, sexual and drug offences. At the time of writing, the most recently published guidelines relate to offences of manslaughter and child cruelty.[1] It is this most recent 'structured steps' format of England and Wales guideline to which this article refers.

Each sentencing guideline in England and Wales is subdivided into several specific offences.[2] Specific offences are then divided into three or four categories of seriousness, each of which is associated with its own starting point sentence and range. Judges determine the category by identifying and weighting factors relating to harm and culpability from an exhaustive list. For the offence of common assault, for example, 18 such factors are listed, including a 'significant degree of premeditation' and a 'leading role in group or gang' (Sentencing Council, 2011: 24). Sentencers must then follow a series of structured steps (for common assault, there are nine in total) which require them to consider an array of aggravating and mitigating circumstances, any assistance which the offender provided the prosecution, reductions for guilty pleas and the totality principle, inter alia, when determining the final sentence.

The design of the England and Wales guidelines was influenced by the desire to structure the discretion of sentencers, while allowing for more judicial discretion than their US counterparts (Ashworth and Roberts, 2013). The law in England and Wales states that sentencing guidelines must be followed: section 125(1) of the Coroners and Justice Act 2009 declares that all sentencers must 'follow any sentencing guidelines which are

relevant to the offender's case [...] unless the court is satisfied that it would be contrary to the interests of justice to do so'. Some commentators maintain that this legislation, when read alongside the step-structure format of the England and Wales guidelines, creates both a binding duty on the courts to follow the guidelines and an expectation that they will do so in practice (e.g. Roberts and Ashworth, 2015; Roberts and Bradford, 2015). According to Dhami (2013b), however, the term 'follow' is flexible enough that this law falls short of making the guidelines mandatory. Either way, as Dhami (2013a, 2013b) also points out, the guidelines provide sentencers with considerable freedom to select and weight different factors as they see fit.

At this stage, it is useful to consider the empirical research on the different ways in which the sentencing guidelines are 'followed', as this term could denote adherence to either the *outcomes* or the *processes* outlined therein. This is important for our purposes because, the more evidence there is that the guidelines are followed by sentencers, then the more confidently we can state that they form a key part of the choice architecture of sentencing.

In relation to outcomes, adherence can be determined by measuring the proportion of cases in which sentences fall within or outside of the specified ranges. Minnesota provides regular reports on 'departure rates', most recently finding that, in the year 2016, around three-quarters of felony sentences fell within the guidelines' ranges (Minnesota Sentencing Guidelines Commission, 2017). A study in England and Wales (Roberts, 2013) found that, in 97% of cases of two assault offences, and in 92% of cases of another assault offence, sentences complied with the ranges provided in the guidelines. In addition, research from England and Wales suggests that discounts given for guilty pleas typically correspond with those mandated within the relevant guidelines (Roberts, 2013; Roberts and Bradford, 2015), suggesting that sentencers may make these decisions with reference to, or based on their knowledge of, the requirements therein. It is worth bearing in mind that low departure rates do not necessarily indicate an optimal sentencing process: low departure rates could conincide with high levels of clustering, for example, if judges use only a small number of sentencing outcomes (albeit, ones which fell within the predetermined ranges for each offence).

Furthermore, although the low departure rates may indicate that judges largely adhere to prescribed outcomes, they do not necessarily mean that the outlined *procedures* are being followed in every case. With reference to the structured steps in the England and Wales guidelines, Roberts (2013: 111) notes that departure rates 'do not reveal the extent to which [judges] have "followed" the guidelines in terms of moving through the nine steps, taking into account the appropriate factors at the appropriate stage'. He concludes that, in the absence of research which examines exactly how and when judges engage with guidelines during sentencing, 'the full impact of the guidelines, and the way that courts use them, remains hidden from view' (Roberts, 2013: 111).

The most recent evidence from England and Wales suggests that sentencers might indeed be following the processes outlined in the guidelines. For example, Pina-Sánchez (2015) and Pina-Sánchez and Linacre (2014) found that sentencing consistency increased following a reformatting of the guidelines which explicitly sought to achieve this goal. The new format provides a much longer and clearer list of aggravating and mitigating factors than its predecessor, corresponding with findings by Roberts et al. (2018) that

sentencers reported taking more factors into account after this change was introduced. Roberts et al. (2018) also found that, for offences of assault, clustering had decreased under the new guidelines, as measured by the proportion of offenders sentenced to the 10 or 20 most common outcomes. As the next section argues, we might expect to see lower clustering when multiple factors are listed in the guidelines, if judges refer back to them during sentencing. Further studies have also found that, as the England and Wales guidelines require, sentencers generally give more weight to 'Step One' factors (i.e. those indicating seriousness) than to the additional aggravating and mitigating factors provided in 'Step Two' (Fleetwood et al., 2015; Irwin-Rogers and Perry, 2015; Lightowlers and Pina-Sánchez, 2017; Maslen, 2015; Pina-Sánchez and Grech, 2018). More recently, Pina-Sánchez et al. (under review) found evidence that judges generally follow the step-sequence in the order prescribed within the guidelines. Specfically, they found that, for the most part, the case characteristics listed in Steps Two and Four of the guidelines were being used as originally intended. This all serves to indicate that judges are following the processes outlined within the guidelines.

There are further reasons that we might expect judges to engage with the guidelines. In Minnesota, the multitude of options presented on the grid may mean that judges, unless they are able to memorize all the calculations contained therein, must consult the guidelines regularly if they wish to ensure that their decisions are compliant. Judges in England and Wales might also need to refer back to the guidelines during sentencing in order to decide on the initial category of seriousness, consider each of the structured steps and reflect on the lists of aggravating and mitigating circumstances when determining the sentence – especially as these vary for the different offences. In both jurisdictions, moreover, sentencers are trained to follow the guidelines. In England and Wales, the progressive introduction of new guidelines is accompanied by judicial training in their use (Roberts and Ashworth, 2015), meaning that, even if sentencers do not always consult the guidelines during sentencing, they should at least be aware of the guidelines' details and their own obligations therein. Finally, the fact that magistrates are not legally trained, need only sit a minimum of 13 days per year, and tend not to oversee a large volume or variety of cases, might mean that they are unfamiliar with some offences' guidelines, and are therefore more likely to refer back to them for direction on a regular basis (Roberts and Ashworth, 2015). Given that magistrates tend to sentence around 95% of cases in the criminal courts (Office for National Statistics, 2017), this would mean that the guidelines play a significant role in shaping sentencing decisions in this jurisdiction.

Sentencing guidelines may not always be utilized or followed to the letter (or number). Still, it seems reasonable to conclude that *guidelines matter*: where in force, they are an important part of the choice architecture in which sentencing takes place. Given the influence of choice architecture over how people make decisions (Thaler and Sunstein, 2009), therefore, researchers must seek to assess both the likely interaction between heuristics and sentencing guidelines, and the implications of this relationship for achieving the goals of sentencing. We will now analyse two different guidelines in order to hypothesize how their design might intensify or reduce the influence of heuristics on sentencing, focusing on the implications for clustering and individualization.

Analysing the Architecture of Sentencing Guidelines

Research suggests that judges' heuristics might contribute to sentence clustering by preventing them from identifying and recalling all the relevant circumstances of the offence and offender and all the potentially applicable sentencing options. As a feature of the choice architecture which contextualizes the sentencing decision, we should expect that sentencing guidelines interact with judges' heuristics in ways which strengthen or reduce these tendencies, depending on how the guidelines are designed.

In Minnesota, the standard sentencing grid[3] can be found on page 79 of the 146-page Sentencing Guidelines and Commentary (Minnesota Sentencing Guidelines Commission, 2016). Already, this design is problematic, if the designers sought to ensure adherence to the full detail of the guidelines: the decision sciences literature suggests that any guidance which is lengthy, convoluted and heaving with text and detail is unlikely to be fully utilized (Dhami, 2013a, 2013b; Hutton, 2013; Ruback and Wroblewski, 2001). Still, we can study the sentencing grid itself, as it is this feature of the document to which Minnesotan judges are most likely to refer when sentencing (Frase, 2005).

The grid's design requires judges to undertake three steps. The first and second steps, as described above, are to determine the crime seriousness and the criminal history score, from which it is possible to identify the category into which each offence falls. The judges must then determine the final sentence based on the starting points and, in some cases, ranges provided in each offence category. There are no lists of aggravating and mitigating circumstances supplied next to the grid, nor any other explicit reminder or encouragement to individualize sentences.

An analysis of the Minnesota sentencing grid indicates that four of its features may act to exacerbate sentence clustering:

(1) The first and second steps require judges to consider *only* the offence's severity and the offender's criminal history. Judges are therefore precluded (or, at least, discouraged) from taking other factors into account at this point (Frase, 2005).
(2) The grid comprises a total of 77 offence categories, representing all the possible combinations of offence seriousness and criminal history.
(3) Forty-eight (62.3%) of these categories denote both starting points and sentence ranges; the remaining 29 (37.7%) categories relate to presumptive stayed sentences and only provide starting points.
(4) The grid neither reminds nor encourages judges to consider aggravating and mitigating circumstances when determining whether, or by how much, the final sentence should deviate from the starting point.

These features of the grid might exacerbate clustering by preventing, discouraging or failing to remind or encourage judges to take multiple factors into account and consider the full range of sentencing options. First of all, judges are required only to consider two factors when selecting the category on which the sentence largely depends. Consequently, hundreds of offences are shoehorned into 11 groups and thousands of offenders are placed within just 77 categories, meaning that offences of varying seriousness and offenders of differing culpability will likely be assigned to the same categories. This is a

common criticism of grid-based sentencing guidelines (Alschuler, 1991; Lowenthal, 1993; Schulhofer, 1991) and means that their design may exacerbate the tendency to exclude potentially relevant factors during sentencing.

Moreover, the grid does not encourage judges to consider the full range of sentencing outcomes. First, we might expect that starting points, present in all 77 categories, will anchor the judges' thinking, risking uniform sentences that have not been reasoned exclusively according to the principles of sentencing (Isaacs, 2011). Second, although sentence ranges are provided directly underneath the starting point in two-thirds of offence categories (i.e. those representing immediate custody), the grid provides no incentives or reminders to adjust the starting point, and no aggravating or mitigating circumstances which judges could use to help them do so. The guidelines do provide a list of aggravating and mitigating circumstances which judges may use as *reasons to depart* from the predetermined ranges. Yet, this list is located some distance from the grid (pp. 45–49), is woven inconspicuously into the narrative text which constitutes the bulk of the document and does not apply to the majority of cases that are sentenced within the ranges provided. These features of the Minnesota grid may compound the tendency to consider fewer factors and outcomes than are relevant and available, respectively.

As noted earlier, the England and Wales guidelines were developed with the express intention of affording judges more discretion than their Minnesotan counterparts (Sentencing Commission Working Group, 2008). Consequently, they diverge from those in Minnesota in several important ways, most notably by delineating a series of structured steps which sentencers must follow, but which are less prescriptive than the grid.

An analysis of one representative example of the England and Wales guidelines (the Assault Definitive Guideline – Sentencing Council, 2011) suggests four ways that it may be more likely than the Minnesotan grid to mitigate for the impact of heuristics on the sentencing process:

(1) It lists several aggravating and mitigating factors which judges are encouraged to consider during the first step (i.e. when an offence category is determined). This is divided into factors relating to harm and to culpability. For example, for the offence of common assault, the guidelines list three factors indicating higher harm and one indicating lower harm, as well as nine factors indicating higher culpability and five indicating lower culpability.

(2) All offence categories provide both starting points and ranges. For example, the starting point for a category-one common assault is a 'High level community order', while the range is specified as 'Low level community order – 26 weeks' custody' (Sentencing Council, 2011: 24).

(3) In 'Step Two', once a category is determined, judges are encouraged to consider a long list of potentially relevant aggravating and mitigating factors. Sentencers are asked to 'identify whether any combination of these, or other relevant factors, should result in an upward or downward adjustment from the starting point' (Sentencing Council, 2011: 25). The factors listed vary for different offences. For common assault, for example, 19 aggravating factors and 11 mitigating factors are listed; it is also stated that this list is '**non-exhaustive**' (Sentencing Council, 2011: 25, bold emphasis in original).

(4) Following these two steps, judges are required to adjust the sentence in accordance with several further explicitly stated considerations, including any assistance the offender provided to the prosecution, reductions for a guilty plea and dangerousness, inter alia.

In theory, these features of the England and Wales guidelines should act either to mitigate for the influence of heuristics on sentencing or, at least, exacerbate it to a lesser degree than the Minnesotan grid. For example, sentence ranges are detailed in every case where a starting point is provided, reminding judges that they can deviate from the starting point. Moreover, sentencers who refer to these guidelines will encounter dozens of factors to consider when selecting the offence category and deciding whether and by how much to depart from starting points, potentially encouraging or reminding them to take multiple factors into account. They are even reminded, in bold, that there may be unwritten, relevant factors which they should consider. These design features could help sentencers to identify and recall more of the pertinent circumstances and consider more sentence outcomes, relative to the Minnesotan grid. This hypothesis is consistent with Shah and Oppenheimer's (2008: 207) belief that decision-makers can be encouraged to identify and make use of additional information which is 'processed from an external source' – to put it simply, if they are reminded and encouraged to do so.

This is not to say that we should necessarily expect more clustering in Minnesota than in England and Wales, as many other factors may contribute to this phenomenon. For example, levels of clustering may in part be a product of the training, culture or composition of the judiciaries. Additionally, the starting points in England and Wales will still act to anchor judges' thinking and may even be more likely to occasion sentence clustering than those in Minnesota. In England and Wales, starting points for terms of imprisonment are almost always expressed in whole years or in multiples of three months. This might encourage sentencers to use certain 'round' numbers (e.g. six, 12 or 18 months) to a greater degree than the Minnesotan guidelines, in which both the starting points and the sentence ranges are always expressed in months, and in which numbers of months that do not represent full, half or quarter years are commonly used.[4] If anchoring is indeed the most influential heuristic, therefore, we might expect to find more clustering overall in England and Wales than in Minnesota, despite the various other differences between the guidelines. Indeed, anchoring caused by these rounded starting points and sentence ranges, might help to explain the finding by Roberts et al. (2018) that sentencers in England and Wales prefer certain 'round' numbers.

Having illustrated how the interaction between heuristics and sentencing guidelines might impact on clustering, we can now turn to 'nudge theory' to consider how evidence from the decision sciences might be used to enhance individualization and other sentencing goals.

Conclusion: Nudging Judges through Sentencing Guidelines?

More empirical research is required before we can conclude exactly how and to what degree heuristics influence sentencing. To the extent that heuristics seem likely to

contribute to sentence clustering, however, it is worth exploring whether 'nudge theory' may help the 'choice architects' who design sentencing guidelines to achieve greater individualization. Nudge theory posits that choice architecture can be designed in a manner which reduces the negative influences of heuristics on decision making, without restricting the choices available to decision-makers (Thaler and Sunstein, 2009). This could be useful in the context of sentencing, where judges often resist efforts to constrain their discretion (Dhami, 2013a), but where it is nonetheless important to structure their decision making to maximize the chances that the goals of sentencing are realized. Nudge theory could help policy-makers to design sentencing guidelines which improve decision quality, without prompting the resistance associated with compulsory, restrictive or prescriptive measures.

It is possible to conceptualize some of the existing features of the England and Wales guidelines as nudges. For example, both the lists of aggravating and mitigating circumstances and the notice that these lists are not exhaustive, could remind sentencers to consider more relevant factors. This, in turn, might help judges to individualize sentences, without policy-makers being prescriptive in terms of which factors should be considered and how they should be weighted. These design features might help explain both the decrease in clustering and the increase in the number of factors which judges reported considering, after this new model of guidelines was introduced in England and Wales (Roberts et al., 2018). Nudges might also help to encourage more proportionate sentencing. Fleetwood et al. (2015) examined the impact of new drug offence guidelines in England and Wales which urge judges to link the culpability of drug traffickers to their 'role' in the process. Their analysis found that this change precipitated a fall in sentence lengths for offenders who had been coerced or pressured into trafficking. Future research must seek to establish empirically the manner and extent to which judges follow to the offence-specific (and, for that matter, the generic[5]) guidelines in order to help determine whether provisions such as this can influence sentencing in practice.

Future studies could also experiment with different kinds of nudges in order to promote almost any goal which we might wish sentencing to achieve. For example, they could be used to promote a greater emphasis on evidence-based sentencing (Lösel, 2012; Marcus, 2006). In the United States, where sentencing reform has gained bipartisan support in recent years (Karstedt et al., 2018), guidelines could be used to nudge judges into greater use of non-custodial sentences. Researchers could make use of experimental methods and hypothetical cases to test the impact of different types of nudges on judicial decisions (Dhami, 2002; Dhami et al., 2015). As nudge theory and the decision sciences become increasingly influential across public policy circles, criminologists may wish to consider how the knowledge located in these fields might help us to achieve hitherto intractable problems in our own work.

It may be that judges can be nudged into undertaking a more analytical process than the more intuitive one which might otherwise occur (Kahneman, 2011; Krasnostein and Freiberg, 2013). This is not to say that sentencing operates on intuition alone; Dhami et al. (2015) have argued that sentencing is a 'quasirational' process, located somewhere in between intuition and analysis. Nor is it to suggest that heuristics and intuition are inherently 'irrational', or lead always to incorrect decisions (Alison et al., 2011). Rather, it is to recognize that the use of intuition and the influence of heuristics in sentencing

might make this process insufficiently precise to achieve individualization (Casey et al., 2013; Peer and Gamliel, 2013). Research has long established that practitioners in public institutions tend to over-simplify complex situations and humans' needs, when deciding how to use their powers to administer benefits and sanctions (Lipsky, 2010; McConville et al., 1991). This results in decisions which systematically and predictably fail to respond to the unique nature of individual cases (Sunstein et al., 2002). Given the proliferation of sentencing guidelines around the world, we concur with Dhami (2013a, 2013b): we must turn to evidence from the decision sciences to ensure that guidelines are always designed in ways which promote important sentencing goals.

Notes

1. See https://www.sentencingcouncil.org.uk/publications/?s&cat=definitive-guideline to access all of the published sentencing guidelines in England and Wales.
2. For example, the assault guidelines cover: causing grievous bodily harm with intent; inflicting grievous bodily harm; assault occasioning actual bodily harm; assault with intent to resist arrest; assault on a police constable; and common assault.
3. The guidelines provide separate grids for sexual offences (p. 81) and drug offences (p. 83).
4. Of the 48 (out of 77) categories in the Minnesota standard grid which have both starting points and sentence ranges, only six provide a starting point and sentence range which both represent either full, half or quarter years. For example, the category for someone who commits murder in the second or third degree and has six or more previous offences provides a starting point of 240 months (12 years) and a range of 204 months (17 years) to 288 months (24 years). Starting points and/or sentence ranges in the remaining 42 categories all include numbers of months which are not divisible by three. For example, the category for a first degree assault committed by someone with no previous convictions provides a starting point of 86 months and a range of 74 to 103 months.
5. England and Wales has sentencing guidelines which are not offence specific, but which outline principles for the sentencing of young people, for the imposition of community and custodial sentences and for assessing sentence reductions for guilty pleas, inter alia.

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