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Abstract

Purpose

Nobel Prize winner Daniel Kahneman's work on modes of 'thinking' provides a comprehensive text which is little explored in respect of work with people who have an intellectual or developmental disability. This paper explores the potential of this work to change staff development and practice.

Design/Methodology

Key themes from *Thinking Fast, and Slow* (Kahneman, 2011) are described and applied to current staff practice.

Findings

Modes of thinking are relevant and important to understanding and improving manager and staff practice.

Originality

To our knowledge this is the first attempt to describe and understand staff thinking and practice using Kahneman's ideas.

Key words: staff practice, intellectual and developmental disability, staff development, training, intuitive and rational thinking, Daniel Kahneman.

Staff practice and modes of thinking

Introduction

Kahneman's work as a psychologist, for which he was awarded a Nobel Prize for contributions to (behavioural) economics, is described in his publication *Thinking, Fast and Slow* (Kahneman, 2011). Kahneman's work is focused upon how individuals perceive and respond to, i.e. think about, their environments. In common with the rest of humanity, the behaviour of frontline staff (i.e. workers directly interacting and providing day-to-day support for people with intellectual and developmental disabilities (IDD)) is substantially influenced by their context. Establishing sustained, good practice by frontline staff has proved complex and problematic (Bigby and Beadle-Brown, 2018; Mansell *et al*., 2008; Ager and O'May, 2001). The research of Kahneman and his many collaborators on modes of thinking reinforces the importance of recently emerging factors in that field e.g. the nature of frontline management (practice leadership).

Practice leadership was first defined in IDD settings by Mansell *et al*. (2005) and emerged from research on the implementation of active support. It focusses on the quality of life experienced by the individual with IDD and the range of ways that frontline managers can influence the support they receive (e.g. through coaching of staff, collective discussion, individual guidance, helpful allocation of staff resources etc.). A series of studies (Beadle-Brown *et al*., 2014; Bould *et al.*, 2016; 2018) have shown that practice leadership has a significant beneficial effect on the nature of support provided for people with IDD. In their review of the literature providing evidence of factors associated with improvement in quality of life, Bigby and Beadle-Brown (2018, e188) conclude that, for managerial practice, the "strongest emerging finding is the importance of practice leadership by front-line

managers in the development and maintenance of staff working practices that reflect Active Support". Practice leadership has also been shown to improve the experiences of staff working with people who show behaviour described as challenging (Deveau and McGill, 2016).

As Mansell and Beadle-Brown (2012) indicate, practice leadership is not the exercise of management control. Rather, it is an interactive and developmental process, and to be effective practice leaders require an understanding of the external and internal factors determining staff behaviour. Thus Kahneman's work on the relationships between behaviour and context might help practice-focused practitioners/managers understand why they struggle to get staff to provide effective and appropriate support. This impasse is particularly evident, and potentially dangerous, when supporting people with IDD who exhibit behaviour described as challenging and reflects the current authors' interest in getting the best from staff in such situations using a practice leadership style of frontline management (Deveau and McGill, 2016).

The paper starts with a summary of Kahneman's work and goes on to describe some illustrative practice examples. Ideas are presented for how organisations and practice leaders may develop interventions that utilise the power that comes from understanding the modes and biases of thinking described by Kahneman, while avoiding their associated pitfalls. We present interventions in the context of frontline practice leadership and selected literature in IDD. The discussion focuses upon further analysis applying Kahneman's work to

practice leadership and relating his work to other approaches in IDD e.g. positive behavioural support (PBS) and 'narrative' practices.

The two systems of thinking

The core of Kahneman's work is the distinction between two modes of thinking: system 1, fast thinking, and system 2, slow thinking. System 1 thinking is automatic, rapid and involves little sense of effort or of voluntary control. System 2 thinking is slow, effortful and logical. System 2 allocates attention to effortful mental tasks and only system 2 can construct thoughts in a logical, orderly series of steps. The interactions between these two systems are central to this paper and central to what we all do when we are behaving. The two systems of thinking described by Kahneman (and echoed in work by other psychologists) provide a description of human thinking, not an explanation of how the brain functions to produce it.

System 1 perceives its surroundings exceptionally quickly, with little perceived effort and suggests thoughts, and consequent actions, which are not consciously 'worked out' and often ascribed to intuition or instinct. The effortful system 2 thinks of itself as being in control despite largely accepting and relying on the effortless, automatic operations of system 1. When we are awake both systems are working, system 1 automatically and system 2 in 'lazy' low effort mode:

> *"System 1 continuously generates suggestions for system 2: impressions, intuitions, intentions and feelings. If endorsed by system 2, impressions and intuitions turn into*

> *beliefs, and impulses turn into voluntary actions ….. In summary, most of what you (your system 2) think and do originates in your system 1, but system 2 takes over when things get difficult, and it normally has the last word" (Kahneman, 2011, pp. 24-25).*

For much of our everyday life this division of mental labour works efficiently and well. System 1 gets us through life with little perceived effort and system 2 monitors (within its limited capabilities) and tries to stop inappropriate system 1 suggestions e.g. losing one's temper or 'jumping to conclusions'. However, this arrangement also has its limitations. Much of Kahneman's work is focused upon the problems of system 1 thinking: its biases and heuristics (mental shortcuts) which we rely on to navigate life but which can produce problems for our decisions and understanding. He illustrates this with common phenomena such as the Müller-Lyer illusion (see https://en.Wikipedia.org/wiki/ Müller-Lyer illusion) in which our system 1 perception is fooled into thinking arrow A is longer than B. This illustrates the power of system 1's conclusion that the lines are different, even when system 2 'knows' that they are the same.

There are parallels here with IDD where staff intuitive (system 1) thinking gets stuck in a particular belief or perception even when professionals and practice leaders try to change this. For example, if staff believe a particular behaviour is 'naughty' or 'manipulative' it may take a great deal of repetition to enhance system 2 control over this and accept a different label and perception – perhaps one associated with understanding 'challenging' behaviour rather than punishing 'naughty' behaviour. According to Kahneman, system 1 has an endless capacity for answering a difficult question (by substituting a simpler one) which would be

better addressed by rational, but effortful (system 2) thinking. Whilst making much of the problems system 1 thinking can lead to, Kahneman also noted the largely effortless, appropriate and virtually instant actions that it allows. Intuitive cognitive processes then have, in Kahneman's phrase, both 'marvels and flaws' .

System 2 also has its problems. Rational thinking, whilst necessary in activities such as constructing a logical argument and computing statistics, has limited effortful capacity and generally, and by preference, runs in lazy watchful mode over System 1. Kahneman illustrates this limited capacity: try walking at an easy pace and multiplying 17 times 24. Many people stop walking when undertaking this effortful task, the brain's capacity is fully employed with the computation and finds it difficult to simultaneously manage the largely automatic function of walking. Perception can also be badly affected if System 2 is undertaking an effortful task. The 'Invisible Gorilla' task (Simons and Chabris, 1999) demonstrates this well (see https://www.youtube.com/watch?v=IGQmdoK_ZfY). Around 50% of people fail to see the person in a gorilla suit pass between two teams when they are asked to focus upon counting the number of times the ball passes between the players. Expecting staff to use system 2 routinely will, then, be a problem when they are called upon to provide rapid and useful responses to challenging situations because it is just not quick enough. Logical, rational, thought-out responses are effortful to develop and enact, unless sufficiently practiced to become intuitive. It has been proposed that effort (as demands upon cognitive resources) can be experienced as stress once the individual's limited capacity to meet demands requiring rational cognitive effort is overwhelmed (Devereux *et al*., 2009), potentially increasing reliance upon largely effortless system 1 thinking. For

example, Kahneman's work suggests that heightened emotions like fear and anxiety for staff when managing challenging behaviours (in the absence of sufficiently practiced responses) increase the likelihood of intuitive responses because of the cognitive ease with which these are 'thought'.

Herein lies the powerful optimism of Kahneman's description: we try to run on system 1 as much as possible, and it is marvellous but flawed, but its failings are not immutable. With guidance and support, system 2 can interpose alternative thinking and behaviours, and with practice these can be adopted as routine experiences by system 1. In summary, system 2 thinks it is in deliberate control and it sometimes is, when system 1's automatic, effortless impressions and intuitive suggestions do not achieve smooth interactions and results. System 1 does not judge the results of thoughts and actions, only suggests them. System 2 tries to monitor and plan responses, within its limited capacity, while system 1 suggests actions and thoughts that may be unhelpful where counter-intuitive ways of behaving are required.

Implications for providing support for people with IDD

The potential for applying the two modes of thinking to the support of people with IDD is considerable. Those providing support will rely primarily on System 1's array of heuristics to navigate their way through their job role. The resultant biases are likely to lead most staff and managers, at least some of the time, into unhelpful ways of thinking and behaving.

Staff practice and modes of thinking

We focus here on five illustrative areas. In each case we draw recommendations from Kahneman's summary of the existing evidence in the form of 'things to try' and 'things to avoid'. These will help practice leaders:

1. Consolidate and justify the retention and persistence of existing practice already in use (without necessarily realising it is supported by extensive research evidence);
2. Identify new ways to lead and manage the implementation of good support;
3. Generate a broader sense of how an understanding of systems 1 and 2 can assist anyone interested in better practice.

Selecting new staff – overconfidence bias

Traditional methods of staff selection and recruitment involve a process of prediction conducted by managers using their personal judgement about the suitability of candidates for the particular work in hand. Despite efforts made to render recruitment more objective (standard questions, scoring sheets, etc.), Kahneman's research shows that staff recruitment is likely to be biased by the overconfidence of experienced managers who consider themselves appropriately skilled, and who fail to notice their errors. Kahneman provides extensive evidence that we are all prone to this 'overconfidence' bias of system 1 and he shows, for example, that experts paid to predict political and economic trends "performed worse than they would have if they had simply assigned equal possibilities to each of the (…) potential outcomes" (Kahneman, 2011, p. 219). Application forms, shortlisting and interviewing are likely to have poor reliability for predicting future staff performance and more useful evidence of potential performance will come from the

observation of extensive contact in real-life situations i.e. observing potential staff operating in ways that allow identification of their system 1 thinking.

In particular, Kahneman's ideas would suggest the following things to try:

- Use traditional recruitment to screen for clear and unarguable reasons not to employ a candidate, and use induction trial periods effectively to provide more objective, observed grounds for awarding permanent contracts;
- Enable people who are going to be supported to be involved in the recruitment process. Use their direct feedback and your observations of their reactions to, and the behaviour of, candidates in interactions with them to enhance your prediction of their likely performance;
- Group based interviews with 'cases' to discuss may demonstrate ability to flexibly combine system 1 and system 2 thinking.

And some things to avoid:

- Assume that you can identify potentially good support workers from meeting them on paper and in interview. If you cannot help being 'convinced' of your good intuition then you should be doubly careful about the conclusion you come to;
- Try to judge a candidate's character or predict how they will respond and relate to potential colleagues and the people they will support. What they say is not necessarily what they will do.

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Staff induction – confirmation bias

'Confirmation' bias – described by Kahneman as paying attention to phenomena that confirm an existing understanding about the world (and ignoring any that do not) - is commonplace and has been shown to influence perceptions and attitudes to others. Kahneman shows how confirmation and overconfidence biases can be readily produced in system 1 thinking when system 2 is 'resting'.

In service settings new staff acquire early information (often from the 'stories' told by other staff or from written documentation) about people they will be supporting. Experience new staff subsequently have risks being subject to confirmation bias – they will notice characteristics of people that confirm what they have been told and discount those that do not. This has considerable implications for the support of people whose behaviour may be challenging, as well as those described in terms of their disability or condition.

To address these issues the following might be tried:

- Arrange for new starters to accompany and observe people in a variety of settings including when they are engaging in preferred activities with preferred staff;
- Ensure that any early exposure to behaviour that challenges is explained rapidly to new starters in functional and dignified, respectful terms;
- Discuss any limiting conditions, syndromes or characteristics associated with the person only after new staff have spent time with them in a range of positive contexts.

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And the following avoided:

- Introduce new staff to people they will support through descriptions of behaviours that challenge, or associated risk assessments, medication protocols etc.;
- Put staff on physical intervention or breakaway training before they have spent at least some time with people they support in a range of activities.

Attribution errors –stories versus rational relationships

Kahneman (2011, p. 29) describes system 1 as having "a special aptitude for the construction and interpretation of stories about active agents, who have personalities, habits and abilities" Although Kahneman does not directly discuss attributions we include this as an example of the congruence between his ideas of thinking and current theory in IDD. Because it processes information with minimum effort, system 1 gravitates towards sentences like: "Peter spitefully swore at James" rather than those that encourage an appreciation of the role of others, and the environment, in behaviour: "When Peter was told that his mother is going to the seaside instead of coming to see him, he became upset. As James tried to tell him not to worry because there would be other days, Peter said "For xxxs's sake". It is easier and quicker for us to describe and grasp Peter's 'spiteful personality', than a range of possibly relevant contextual conditions.

This tendency (also described as the fundamental attribution error (McClean and Walsh, 1995)) has clear risks for people whose behaviour challenges. Any attempts to attribute the causes of behaviour to variable and multiple factors external to the person themselves,

using effortful system 2 thinking, will conflict with system 1's language and narrative style when describing events and the behaviour of others. And Kahneman's description resonates deeply. Anyone working in services for people whose behaviour can be challenging will have heard descriptions of people and behaviour that coincide with the words he uses:

- "active agents" – "he does it on purpose you know"
- "personalities" – "she's the jealous type"
- "habits" – "it's just him, he always does that"
- "abilities" – "he's actually very clever".

Our reliance on system 1, and its preference for stories that are simple to tell and follow, means we can readily agree an inaccurate and unhelpful internal attribution for behaviours that challenge. The following approaches to address these issues might be tried:

- In organisations that support people with significant challenging behaviours ensure a practice leader with the right skills and knowledge is available to staff to support their system 2 thinking and appreciate people's behaviour in the round;
- Publicly, within and outside staff teams and individually, support staff who provide an alternative narrative that conveys positive perceptions of service users.

And the following avoided:

- Allow or enable staff stories to become unchangeable versions of a person which are routinely accepted and damage the person's reputation;

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- Allow or enable stories which present a person as unchanging or bound by their biology e.g. 'he'll never learn', 'Prader Willis are all the same'.

System 1 marvels (and flaws) – individual staff rapport and intuitive skills

We have focused above on some of the flaws, i.e., common biases and heuristics of system 1 thinking. Kahneman places equal emphasis upon the benefits that humans derive from being able, at great speed, to understand and act in usually useful ways in dynamic social environments. In the following we draw further attention to the congruence between Kahneman's work on thinking and action, and selected IDD literature. Instinct and intuition have usually been regarded as unreliable and not to be 'trusted' in respect of staff, carrying too much individual 'baggage'. But it's inevitable that staff will bring both their systems 1 and 2 to work. As Felce *et al*. (2002, p.15) suggest:

> *It is reasonable to expect that how staff carry out their jobs will be an accommodation between the expectations of the service and their own values, motivations, competencies and interests. (……). The formal service culture, its working methods and training cannot be simply passed to staff, poured in as if filling an empty vessel. Staff bring their own agendas to the workplace and are susceptible to influences other than those stemming from the service organization.*

The helpfulness of staff's system 1 thinking will likely vary from one context to another. For example, the ability to relate and interact positively with people who present challenges, is a skill that some staff appear to possess intuitively, while others do not. The ability to build such rapport with service users whose behaviour many staff experience as stressful and very

difficult is something that all frontline managers, especially those who act as practice leaders, will be profoundly grateful for. Practice leaders should seek to replicate such a skill across staff, as positive rapport has been shown to be associated with more engagement in positive activities and less challenging behaviour, and can be developed in existing and newly appointed staff (Magito McLaughlin and Carr, 2005; Parsons *et al*., 2016). Try the following:

- When staff experience a particular service user as difficult and stressful to support – plan a programme of mutual engagement in preferred activities and monitor the results;
- Associate new staff with activities and experiences preferred by service users who may challenge.

And avoid:

- Expecting all staff to support all service users equally well after they have read the files and had their induction.

Developing skilled practice

Kahneman's work also sheds light on the vexing question of why theory-based classroom (and increasingly online) training often does not lead to sustained desired changes in staff practice (Ager and O'May, 2001; Mansell *et al*., 2013; Bigby and Beadle-Brown, 2018), whilst the addition of on-the-job coaching, with practice and feedback, is more successful in bringing about behavioural change (van Oorsouw *et al*., 2009).

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The most common approaches to training employ logical (system 2) interventions, e.g., discussion, lecturing and guided reflection. In Kahneman's view, this is not effective in changing the system 1 thinking and intuitive practice that staff 'naturally' return to as they leave the classroom. Developing intuitive thinking and *skilled* practice requires a "regular environment, adequate opportunities to practice and rapid and unequivocal feedback on the accuracy of thoughts and actions" (Kahneman, 2011, p. 416).

For example, consider Paul (a composite of several individuals), a 22 year old autistic man who has many sensory experiences which may lead to him feeling extreme anxiety and can subsequently lead to shouting and hitting his support staff. Paul's challenges have led to him being admitted to hospital. One of Paul's support workers 'discovered' that a certain approach was helpful. This approach was observed by the manager (practice leader) and entailed the support worker: avoiding direct eye contact (he focused on Paul's chin/neck area), not talking much (except to say "it will feel better soon Paul"), holding his hands palms outwards at chest height, and moving his feet slowly to keep around a 30- 45 degree angle (so he was never standing square to or directly face to face with Paul). As soon as Paul showed any signs of lessening anger he said "time for that tea Paul" and that was usually the end to the 'incident'.

This may appear to be an easy behavioural sequence to learn and perform with competence and confidence. It is not, especially in a context of someone (Paul) who has a 'reputation' of injuring staff and shouting loudly 'in your face' including threats to harm you. As Kahneman says, modifying our intuitive responses in most situations is difficult and, although his work

does not address this, it is likely to be even harder in situations involving high arousal and anxiety. Developing a range of responses to challenging behaviours, or to assist the engagement of service users in activities, requires opportunities for practice with feedback until responses are 'intuitive'. For example, communication strategies with people who are aroused and anxious may helpfully involve (individualised) signs, gestures and objects presented in a particular sequence. Kahneman's approach is very similar to reports of behavioural interventions to developing staff competence in behavioural routines (Ricciardi, 2005). Both Kahneman's approach to developing skilled intuitive practice, and approaches to developing behavioural competence from applied behavioural analysis, suggest opportunities for practice, demonstration and immediate corrective and supportive feedback. One framework for developing competent practice is *three tier training* (LaVigna *et al*., 1994). EDDY training (Deveau and Leitch, 2018) is a similar approach designed to be accessible to frontline managers and staff. This discussion suggests a number of things to try:

- Develop detailed descriptions of those staff interactions observed to be helpful to service users when they are anxious or learning a new skill. Use a behavioural framework for developing this skill in the staff team using three tier or EDDY training;
- Utilise staff team members with good rapport in developing interventions and in 'training' other members of the team, aiming to create a culture of expectations and feedback for the desired change;
- Ask staff teams what the (challenging) person is doing when they are NOT challenging.

And to avoid:

- Sending individual staff on training in the hope they will be able to influence the whole team;
- Expecting staff to read and sign a positive behaviour support plan and then implement it accurately.

Discussion

In this section we draw further links between Kahneman's work on modes of thinking and selected literature in IDD and then focus upon practice leadership and staff practice, drawing links between theory and practice.

Implicit in much of the above discussion is that the practice leader (whoever plays that role in a particular context) should work with staff to develop their skills to identify and be able to move freely between thinking modes. Sometimes the largely effortless system 1 enables staff to engage in positive interactions with service users but sometimes it leads to unhelpful behavioural responses and system 2 would be better suited for planning logical but less intuitive interactions. Achieving a useful balance between the two modes of thinking takes time and opportunities to practice with feedback. The impact of staff thinking modes for implementation of, for example, PBS has not been explored and existing published research presents little relevant evidence.

PBS and other interventions are usually designed by 'experts' primarily drawing on system 2 and implemented by staff primarily using system 1 thinking. McClean *et al*. (2005)

demonstrated (in a rare, large scale, longitudinal study) that frontline staff could be trained to conduct functional behavioural assessments, design and implement PBS interventions. One possible conclusion is that positive outcomes can come from supporting frontline staff to employ both rational and intuitive modes of thinking - although this was not how the original authors described it. The approach they used was informed by a central concern for 'contextual fit' between the developers and implementers of the intervention by supporting frontline staff to undertake both roles (McClean *et al*., 2005; Dench, 2005). An integral part of this process is the requirement for staff to apply both modes of thinking. It seems reasonable to suggest that the training process, the resulting development of a PBS plan (for a familiar service user) and its faithful implementation present many opportunities for staff to practice shifting between thinking modes and receiving feedback. An understanding of Kahneman's work suggests that the intervention described here may have achieved this, and that skilled practice can be developed through a positive balance of both systems of thinking and opportunities to practice with feedback.

A very different approach to working with staff teams who support people with IDD who exhibit challenging behaviours is 'narrative therapy' (Haydon-Laurulet, 2020), a psychotherapeutic intervention which focuses upon the use of language to change staff team interactions and beliefs. Haydon-Laurelet's description of narrative therapy shows, however, marked similarities with some of the practice leadership initiatives suggested above, with an emphasis on the power of (and changing) the stories told by staff to determine the support people receive.

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Practice leaders will only be able to enact the agenda set out above if they have a regular and frequent presence on the 'floor', observing staff practice (Deveau and McGill, 2016; 2019; Bould *et al*., 2018), describing and demonstrating good practice and providing opportunities to practice these skills with immediate feedback (Deveau and Leitch, 2018, LaVigna *et al*., 1994; Kahneman, 2011; Reid and Parsons, 2002). Unfortunately, the balance between administrative demands and practice leadership too often appears to be significantly tilted in favour of administration.

We conclude that Kahneman and his description of the two modes of thinking are helpful in understanding and intervening in how staff and managers conduct their working lives. We have drawn attention to areas where Kahneman's work supports rather than replaces other initiatives e.g. developing rapport and providing on-the-job coaching. One challenge reinforced by this analysis is to define and analyse the expected results of much training currently provided to staff. If this training rarely has intended impacts upon practice, what is it for and how can it be made more effective? In essence this is a question of how to ensure that training in theories or values becomes embedded in intuitive daily staff practice. It is a question of integrating the two systems of thinking described by Kahneman. *Thinking, Fast and Slow* offers a useful contribution to the ways we should develop the sort of skilled workforce necessary for supporting people with IDD in the way they deserve.

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