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Advancing behavioural economics through positive deviance: Attending to the microworld of second-track processes

Prof Arvind Singhal & Dr Erik Bjurström

Positive deviance diffuses innovation by identifying the novel and effective practices of positive outliers—those who have solved the problem against all odds. Innovation researchers Prof Arvind Singhal and Dr Erik Bjurström argue that positive deviance is a vital component of problem-solving in second track processes, achieved through conversation, coordination and collaboration among stakeholders given their lived realities, agendas and constraints.

“The task is ... not so much to see what no one has yet seen; but to think what nobody has yet thought, about that which everybody sees.”

– Erwin Schrodinger

Introduction

The Sufi tale of the mystical character Nasruddin, a smuggler known for his hundreds of disguises, sees him arrive each day without fail at the customs checkpoint leading a herd of donkeys. Each time the customs inspector feverishly turns the donkeys' baskets upside down to check for contraband, hoping to catch out Nasruddin; every time he finds nothing. Years pass, and Nasruddin's legend grows while the inspector becomes more frustrated. Decades later, with both enjoying their retirement, their paths cross.

The inspector says, "Tell me, Nasruddin, what were you smuggling?"

"Donkeys," says Nasruddin.

What prevented the customs officer from seeing the donkeys? Might the answer lie in the “bounded rationality” of an expert's mind or

I. March and Simon, 1958; Burke, 1954/1984; Czarniawska, 2004; Mack and Rock, 1998

their “trained incapacity,” and their “inattentional blindness”! The customs officer's frame—guided by specific cognitions, selective perceptions, and interpretations of what constitutes contraband—specified the boundaries of what was visible or invisible. The baskets that held the contraband were visible; the donkeys were not.²

We contend that the parable of Nasruddin's donkeys is also a warning to behavioural economists, especially those who interrogate the role of social cognition in solving complex, wicked problems: *That often, the solutions to highly intractable problems are part of our actual lived experience, yet remain invisible in plain sight.* What the customs inspector's story tells us is that to discover “invisible” solutions requires new mindsets—a special type of social cognition that is more nuanced in its understanding of human behaviour in decision making and social life.

We contend that Positive Deviance (PD), an approach to addressing wicked social problems, highlights a way forward. The premise of PD is that innovative and simple local solutions (i) exist with positive deviants—“unusual suspects” and “ingenious outliers”, who have solved a problem with no extra resources and often against all odds, (2) do not need to be formulated by experts, but rather found among ordinary people, and (3) are hidden in plain sight and are waiting to be discovered, validated, disseminated and implemented for social justice and sustainable change.

In this article, we interrogate the PD approach around two broad propositions of interest to behavioural economists. First, we propose that PD represents a vital condition of problem-solving using *Second Track Processes*, emphasizing conversation, coordination, and collaboration among multiple stakeholders, each accompanied by their lived realities, agendas and constraints.

Second, we contend that the PD approach allows us to focus our attention on *the microworld of human interaction*—the local context where life is authentically thrashed out by partners and participants amidst complexity. In this microworld, the validity of the innovation in question is negotiated, inferred, and decided by community members, not directed by technical and topical experts.

Positive Deviance: The Microworld of Second Track Processes

Positive Deviance (PD) is an approach for spreading innovations and may thus be understood against the backdrop of the study of diffusion of innovations, that is, the classical study of how ideas, objects and practices that are perceived as new spread in a social system.³ Diffusion studies demonstrate a predictable, over time, pattern for how most innovations spread – the familiar S-shaped cumulative curve of adoption. Correspondingly, innovativeness, that is, how early an adopter is relative to others tends to follow a normal distribution bell curve, beginning with innovators and early adopters, reaching a critical mass, and rounding off with late adopters and laggards. The origin of diffusion theory is the observation that the decision to adopt new farming technologies is not just a rational economic decision, but rather the consequence of a communication process.⁴

Diffusion research shows that human behaviours and cognitions are influenced by social networks, opinion leaders and context dependent non-economic factors. While marketers, policymakers and social change agents try to accelerate diffusion processes, the dissemination and implementation of new knowledge remains a challenge—the uptake is often uncertain, generally unsustainable, and usually accompanied by unintended

2. Singhal and Bjurström, 2015

3. Rogers, 2003; Rogers and Singhal, 1996; Singhal et al., 1999; Singhal and Dearing, 2006; Dearing and Singhal, 2020

4. Kim et al., 2007; Singhal, 2012

consequences. When successfully implemented, the adoption of new knowledge and practices tends to increase productivity, efficiency, and social value. In economic terms, we see a shift upwards in the welfare curve. While this upward shift is a dream for policymakers, all too often, it remains an unrealised dream. Time and again, engineered solutions to wicked problems and implementation challenges fail to deliver as anticipated. In fact, often they make matters worse. In complex environments, it is difficult to foresee consequences within a specific population from the outside, at a distance. A pre-occupation with problem analysis creates blinders that render invisible the solutions in plain view (akin to Nasruddin's donkeys).

In contrast, the PD approach shows how second track processes can be initiated in the microworlds of everyday life, amplifying Rorty's⁵ observation that only deans and librarians need worry about boundaries between academic disciplines – that is, designing career paths or where books are shelved. Gigerenzer also emphasised that the study of human cognition and decision making should favour a real-world problem-solving orientation, not a narrow focus, limited by discipline boundaries.⁶

What distinguishes PD is its topical problem-solving focus and the way it questions, challenges and transforms social cognitions underlying *First Track Processes* that reify a worldview of human rationality in economic thinking and an accompanying fealty to subject matter experts, as well as a reliance on distant managerial control. As we will detail in a later section, PD looks for what works locally, rather than trying to solve others' problems at a distance. In doing so it creates the conditions for the validity of new ideas

and practices to be negotiated locally, rather than imposing them from the outside with claims of universal validity. Unlike the standard practice of science, PD is not looking for the general and normal in a standard bell-curve but instead for the deviants at the positive end of the problem-solving spectrum: those who have managed to find solutions to wicked problems and, remarkably, against all odds.

Second Track Processes as a Broadening of Behavioural Economics

In contrast to traditional economic thinking, second track processes emphasise collaboration and constructive consensus to solve wicked problems⁷ in complex adaptive social systems, and they do so by evoking a special type of social cognition.⁸ Second track processes are supported both by diverse practical field-based experiences and research that questions axiomatic assumptions of economic theory, favouring more nuanced accounts of human behaviour in decision making and social life. Increasingly, economics is viewed as a behavioural science, opening the door for reinterpreting its achievements outside the formal economic domain, and inviting a broader discussion on how it pertains to understanding human behaviour. Interestingly, in commenting on the notion of “nudging”,⁹ Kotler¹⁰ argues that marketing is the original behavioural economics—after all, it has nurtured a century-long fascination with the “irrational” behaviour of consumers, and how to modify it, as also its application in the domain of social marketing. In a similar vein, the 2019 Nobel Laureates Banerjee, Duflo and Kremer's large-scale study on using “gossip” to lessen poverty mirrors the tradition of diffusion of innovations.¹¹

5. Rorty, 2022

6. Gigerenzer, 2008

7. Fritz, 2019

8. Massingham, 2019

9. Thaler and Sunstein, 2008

10. Kotler, 2020

11. Kim *et al.*, 2020

Interest in second track processes goes beyond conceptions of irrationality, nudging, and social marketing. While Herbert Simon's (who pioneered behavioural economics) notion of "bounded rationality" has mainly been interpreted as a negative, one may argue that selective attention is useful in that it allows for expertise and professionalism and, more generally, a way to organise knowledge.¹² As Gigerenzer¹³ elaborated, rationality must be judged in relation to context as the two blades of a scissor: if the context does not allow for analysis and prediction, formal rules of rational decision making cannot help. Rather, real world situations may well resemble the challenges in decision making faced by a baseball player trying to catch the ball. The catcher's task is not so much to predict a complex trajectory; it is about being in the right place as the ball descends, employing the simple heuristics of keeping the angle constant while adjusting one's speed. In essence, different kinds of logic and cognition may be involved in human decision making depending on the context.¹⁴ March and Olsen,¹⁵ for instance, highlight the "logic of appropriateness" as being a way to understanding human decision making. Bruner¹⁶ emphasises how "a narrative mode of cognition" influences emergent understandings of peoples' identity, interests, and behaviours.

The interest in second track processes also goes beyond ontological underpinnings and philosophy of science as embedded in simply theorising. Its concerns are deeply immersed in practice, implementation and change. Simon's notion of bounded rationality—a consequence of the limited span for human attention—emphasises a practical policymaking perspective in explaining the usefulness of science. In an information-

rich world, the lack of human attention may be problematic for those in the higher echelons of organisations and governments; in a highly lawful world, science may avoid information overload by reducing redundancy in predicting one fact from another, that is, "replacing unordered masses of brute facts with tidy statements of orderly relations from which these facts can be inferred".¹⁷ Even though the benefits of reducing redundancy may be self-evident, drawbacks remain. In recent decades, certain sociologists (often referred as "practice theorists") have doubted whether human behaviour can be understood as mere instances of general theory and whether Simon's fealty to parsimony paints too meagre a picture¹⁸ of the context and interactions to fully reveal the intelligibility of human action.¹⁹

The practical interest in second track processes to spur real world improvements by implementing scientific findings hold value for practitioners of social change, equity and justice. Implementation challenges are as old as the field of economics itself. Notably, when mercantilism was replaced in the late 18th century by the first school of political economy, the main reference point for French physiocrats was agricultural production. Consequently, the focus of governments and civic associations was to promote economic development through science and technology to boost agricultural production. Detailed bookkeeping emerged to monitor the interplay of agricultural inputs, throughput activities, and outputs. It is no coincidence that the early diffusion of innovation studies in the early 20th century centered on farming innovations to boost agricultural production, that is, adoption of new seeds, fertilisers and pesticides, as also new

12. Ocasio, 1997

13. Gigerenzer, 2008

14. Kahneman and Twersky, 1979

15. March and Olsen, 2013

16. Bruner, 1986

17. Simon, 1971, p. 45

18. Schatzki, 2005

19. Czarniawska, 2004

cropping practices. The study of the diffusion of hybrid seed corn in the US is considered a classic as it provided overwhelming evidence about the non-economic influences on farmers' economic decisions.²⁰ These findings—that adoption was largely a communication and social process—were substantiated in dozens of studies of educational, health and marketing innovations, inspiring Rogers'²¹ general theory of diffusion of innovations.

The simple lesson was that even in domains where science and technology can reduce facts to tidy statements about correlations and efficiency, adoption of such new knowledge and practices is a communicative, complex, and messy process. Innovation and adoption occur in a real-life microworld where the environment is not fully controlled (as in a laboratory). The validity of the innovation in question is negotiated, inferred, and decided by community members, not directed by technical and topical experts.

The microworlds of how innovations are generated and spread

While the spread of innovations and implementation of change is ordinarily discussed from a societal perspective of policy and innovation systems, we propose an alternative perspective, that is, an understanding of the microworld of innovation as cultivated by human interaction. Aligned with the views of pragmatist philosopher John Dewey, who viewed his classrooms as his laboratory, these microworlds of innovation may be understood as natural or quasi experiments. While the environment is not fully controlled (as in a laboratory), it is fully authentic in terms of participants, context, and complexity. The purpose of attending to the microworld of innovations is not to generate a general theory by disregarding contextual factors, but rather the opposite—to recontextualise and put general knowledge of

technical nature into a specific practical and social context—that is, to explore the validity of innovations in real life settings and contexts. In line with Dewey's thought, Putnam.²² emphasised that validity should be judged in relation to a specific community including its values Rorty²³ was emphatic, whatever technical knowledge and correlations may say, members within a specific community should be the ones to decide what to do with themselves.

These aspects of authenticity, validity and values become even more crucial when grappling with wicked problems where expert solutions and decontextualised best practices tend to make things worse. When dealing with wicked problems in complex environments a high degree of uncertainty exists about whether or not generalised patterns of correlations can be established and acknowledged as general theory. However, viewing innovations from the microworlds of local interactions may not produce normality but rather generate "abnormal" solutions and more authentic innovation through context-specific entrepreneurship. The parable of Nasruddin's donkeys reminds us that often solutions to wicked problems already exist but are hidden from view. These innovative local solutions may need to be discovered internally by community members, and once established may need conversations, coordination and collaboration among stakeholders to spread (as detailed in the next section on the practice of Positive Deviance). The validity of new knowledge may be negotiated locally by community members with respect to their own values and authentic context. This perspective on the spread of innovations by paying attention to microworlds is the very opposite of trying to impose analytical solutions and decontextualised theories on any specific community. The world is replete with well-intentioned attempts to push square pegs into

20. Ryan and Gross, 1943

21. Rogers, 1962

22. Putnam, 2004

23. Rorty, 2000

round holes. By considering the perspective of the community and its values in how innovations are discovered, disseminated, and implemented, PD goes beyond the “push” aspects of social marketing or the notion of simple “nudging”.

This interest in microworlds of innovation is shared by certain latter-day sociologists and social psychologists, particularly practice theorists.²⁴ Practice theorists are interested in the long-standing problem in philosophy of social science of explaining human behaviour as either governed by structures or free agents or both.²⁵ In this quest, microworlds of everyday life have become important for studying not only individual behaviour, decision making and biases, but also for understanding how societal and institutional structures influence everyday decisions—and vice versa. Here the argument is straightforward: if macro-level phenomena such as societal and institutional structures matter, their role should become most evident in micro situations. As it turns out, humans are boundedly rational, that is, rational within the bounds of their span of attention, but also skillful actors who can use institutionalised roles and expectations in their presentation of self and the legitimisation of their actions. That is, people “may play the same hand differently according to their skill and the flow of the game”.²⁶ As tactical games play out in the microworld of interactions, and negotiations settle participants' roles and expectations, such interchanges can take on concrete structural properties. Schatzki²⁷ refers to them as teleoaffective structures, that is, shared beliefs and feelings about end goals. As Ahrens and

Chapman²⁸ explain: a key point is not the formal structural practice arrangement that manifests itself, for example, as a detailed accounting or financial reporting system, but what transpires because of their use in terms of structures of intentionality, that is, the feelings generated as part of the residue of interactions.

This understanding of what happens in the microworld of interactions, and especially what it takes to establish social order (formal or informal), can be elucidated by Herbert Simon's notion of human behaviour and engineering design.²⁹ You and Hands³⁰ described this move in subsequent versions of Simon's work—from rigorous, scientific, and systematic design methods where design activities are the subject of scientific investigation, to more reflective practice and the exploration of plurality in design activities.³¹ The implication is that when confronting social challenges and wicked problems, social engineering may look for what works in specific contexts while at the same time interrogating its validity in others. Here innovation is sometimes a conscious solution and sometimes rather a practice variation.³²

In the following section, we establish that Positive Deviance represents an approach to solving wicked complex problems by identifying existing efficacious practice variations (innovations) in low resource settings, and then disseminating and implementing them for wider societal adoption.³³ We do so by discussing how the PD approach was first put in practice in a real-world setting, Vietnam, to address the wickedly complex and intractable problem of childhood malnutrition.

24. Schatzki, 2005

25. Czarniawska, 2004

26. Whittington, 2006, p. 615

27. Schatzki, 2005

28. Ahrens and Chapman, 2007

29. Simon, 1971

30. You and Hands, 2019

31. You and Hands, 2019

32. c.f. Lounsbury, 2008

33. Singhal, 2010, 2011; Singhal and Svenkerud, 2018, 2019; Dearing and Singhal, 2020

Positive deviance in practice

In 1990, the husband and wife team of Jerry and Monique Sternin, director and assistant director, respectively, with Save the Children, took on a huge challenge in Vietnam where some 65% of the country's children under the age of five were malnourished. They were tasked by Vietnamese officials to demonstrate sustainable results in six months. Pressed for time and resources, preoccupied with meeting the sustainability directive, and being in no position to import evidence-based nutrition innovations from the outside and mobilise an army of change agents, opinion leaders and aides from the inside, the Sternins wondered if the concept of Positive Deviance, codified previously by Tufts University nutrition professor Marian Zeitlin, might hold promise. Zeitlin and her colleagues were investigating why some children in resource-poor households in developing countries were better nourished than others.³⁴ Being well-nourished in a resource-poor microworld meant these households were doing something right that others were not doing.

The Sternins began by selecting four village communities in Quong Xuong District, south of Hanoi, for a nutrition survey. Some 2,000 children under the age of five were weighed by local health officials and volunteers, mapping their socio-demographics, and plotting their growth charts. The Sternins then posed a question to determine the presence of positive deviants: *are there any well-nourished children who come from very, very poor families?* The local officials scrutinised their data charts and noted: "Yes! Yes! and Yes!"

Later, Jerry recalled the "shock of recognition" that washed over the faces of local health officials when they realised this. Although there were only a few (about 1%) positive deviants did exist. They were

"deviants" because they were statistical outliers, and "positive" because they had avoided the wicked problem of malnutrition against all odds.

Through a process of community-led self-discovery, it became evident that the PD families were practising a few simple, efficacious uncommon behaviours. Family members collected tiny shrimps and crabs from paddy fields, and greens of sweet potato plants from their gardens, and added them to their children's meals. These foods are rich in protein and minerals. Further, PD caregivers fed their children smaller meals three to four times a day, rather than the customary two big meals twice a day, leading to better assimilation and absorption of nutrients. Additionally, they practised hand hygiene and actively fed their children. Feeding children actively deviated from the normative practice of simply placing food in front of children, which led to spillage and wastage.³⁵

Once these efficacious innovative practices were identified, the next logical step was disseminating and implementing these practices among mothers whose children were malnourished. Interestingly, even though the wisdom to solve the problem was local and self-discovered by the community members, and the required resources—shrimps and crabs and sweet potato shoots—were accessible to all, just telling people about these PD practices and convincing them to adopt them led to dismal results. Prevailing cultural norms intervened. Community members considered the small shrimps and crabs from the paddy fields to be duck food, and believed the crustaceans were unsuitable for their children to handle and consume. Many mothers were skeptical about feeding their children four smaller meals, notwithstanding that children have relatively small stomachs, meaning that it is optimal to ingest smaller more frequent meals. In diffusion of innovations parlance, telling and persuading people about efficacious indigenous

34. Zeitlin *et al.*, 1990

35. Pascale and Sternin, 2005; Pascale *et al.*, 2010

practices did not substantially move potential adopters on their innovation-decision continuum: from knowledge to attitude change, to practice, to confirmation maintenance, and continuance. After some trial and error, and guided by local elders, the dissemination and implementation strategy was gradually flipped. Instead of pursuing the traditional knowledge-attitude-practice (KAP) route, they decided to follow PAK (practice-attitude-knowledge).³⁶ This practicing of the newly-discovered wisdom—what Massingham refers to as the “doing process of using the new knowledge”³⁷—created the enabling conditions to gradually internalise the innovation through its use.

A two-week nutrition program was designed in each of the four intervention villages. Caregivers whose children were malnourished were asked to forage for shrimps, crabs, and sweet potato greens. The focus was not on information transfer, but on action, practice and more practice.³⁸ Non-PD caregivers of malnourished children learned how to cook new recipes with others using the foraged ingredients. As part of engaging the community in monitoring its own progress, mothers weighed the children before feeding them. No food was spilled or wasted as the children were actively fed. Upon returning home, the non-PD caregivers were encouraged to actively feed their children three or four small meals a day instead of the traditional two big meals. Such feeding and monitoring continued throughout the two-week period of internalising new practices. The outcome was that caregivers could see their children becoming noticeably healthier. Practising the PD behaviours repeatedly, and in a community of peers, shifted negative attitudes, overcoming skepticism and intensifying the diffusion effect. Through the power of social networks and opinion

leaders, a small subset of potential adopters created the conditions for others to attend to, consider, adopt, implement, and maintain the newly discovered nutrition practices.³⁹

The dissemination process began with the project first expanding to another 10 adjacent communities. Word of mouth about the community cooking sessions (through visits by community leaders, health volunteers and ordinary citizens) spread to neighbouring communities, accompanied by a buzz about how malnourished children were being transformed into energetic and active beings. These conversations sparked curiosity and an openness in these adjacent villages toward new nutrition practices. If a peer mother could address her child’s malnutrition, so could they. The social proof was right there. Notably, this dissemination process was not simply information transfer—that is, persuading people to blindly import solutions from the four original communities. Rather, over the next several months, self-selected members from these 10 communities engaged in a process of self-discovering the PD behaviours in their own communities. Research showed that malnutrition decreased by an amazing 85% in the first 14 PD communities.⁴⁰

The Vietnam PD program was scaled up by building a living university around these 14 PD communities. Over the next seven years, teams from other communities with high rates of malnutrition spent up to two weeks directly experiencing the essential steps of the PD process in these 14 communities, and then implemented the PD program in their own community. Through this lateral village-by-village expansion radiating outward, the PD intervention spread nationally. The equivalent of shrimps and crabs and sweet potato greens

36. Singhal and Svenkerud, 2019

37. Massingham, 2019, p. 35

38. Pascale *et al.*, 2010

39. Dearing and Singhal, 2020

40. Pascale *et al.*, 2010

41. Pascale *et al.*, 2010; Singhal and Svenkerud, 2018

could be groundnuts and radish greens, or snails and soyabean curd. The important point here is honouring local wisdom, resources, and context in identifying innovative practices. Remarkably, the process of self-discovery in a local community was found to be as important as the actual behaviours that were uncovered.⁴¹

The Vietnam PD case has been well researched and documented, spurring dozens of scientific studies. The 2002 Supplement Issue of the *Food and Nutrition Bulletin* published over a dozen peer-reviewed articles on the application of PD in Vietnam, plus editorials and commentaries.⁴² Over 2.2 million people improved their nutritional status, including over 500,000 children.⁴³ A study, conducted four years after the program ended, showed that older children and their younger siblings in PD communities continued to be better nourished, demonstrating the acceptability, affordability and sustainability of the PD intervention.⁴⁴ While the sibling effect represented a deeply gratifying indicator of an entire generation of Vietnamese children benefitting from the PD nutrition program, even more gratifying was the documentation of the grandma effect. In 2016, on the 25-year anniversary of the initiation of the PD project, several of the original Save the Children staff who worked with the Sternins returned to Thanh Hoa province to meet with former health volunteers, cadre officials and community members. Not surprisingly, many of the mothers who participated in the PD project in the 1990s were now grandmothers, and most

provided gripping testimonies of the enduring legacy of the PD program.

Post-Vietnam, the PD approach to identifying, disseminating and implementing efficacious innovative practices from the inside-out has been employed in over 50 countries to address a wide variety of wickedly complex problems, including decreasing neo-natal and maternal mortality,⁴⁵ cutting down the spread of hospital-acquired infections,⁴⁶ reintegrating returned child soldiers,⁴⁷ reducing school dropouts,⁴⁸ decreasing childhood obesity,⁴⁹ enhancing female entrepreneurship in rural areas,⁵⁰ reducing childhood injuries and accidents among children,⁵¹ and reducing female genital cutting, sex trafficking and other intractable issues.⁵²

What positive deviance is *not* and *is*

From our interrogation of the PD approach, it is important to distill what PD *is not* and *is*. It is not a tool for marketing or policy implementation of any specific product or innovation. The diffusion of innovation theory follows the path of a specific innovation on its journey through a social system. This is also the salesman's or policymaker's perspective when pushing an idea, a product or a concept on a society, in communities and among individuals.

PD is also *not* a management concept. While management as a term is ambiguous and may cover a vast territory, from command-and-control to issues of culture, it does imply a managerial attitude, that is, strategy implementation through

42. *Food and Nutrition Bulletin*, Volume 23, Issue 4

43. Pascale *et al.*, 2010

44. Mackintosh *et al.*, 2002

45. Singhal *et al.*, 2021

46. Singhal *et al.*, 2010; 2014; Singhal and Dura, 2017; Cohen *et al.*, 2019, 2020, 2022

47. Singhal and Dura, 2009

48. Singhal, 2013

49. Foster *et al.*, 2018

50. Jain *et al.*, 2019

51. Gesser-Edelsburg *et al.*, 2021

52. Singhal, 2023

planning and measuring, or more informal shaping of values and organisational culture through leadership. The managerial attitude is historically shaped around the notion of unity of command or *authority*—with its DNA residing in military practices and through the founders of management (e.g., Fayol). Taylor criticised the implicit motivational theory behind the command logic, referring to its consequences as soldiering, that is, doing as little as possible voluntarily without force or coercion. Furthermore, Taylor argued that external economic rewards were insufficient for improving efficiency as the fundamental problem was not to, as Hammer and Champy put it, “speed up the mess”, but to instead introduce new ways of doing things, thus highlighting the *technocratic* stance of his “scientific management”.⁵³

Nor is PD a method with predictive outcomes. Prediction is a management concept and manifests in advancement of material wealth through increased productivity and efficiency through increasing control over nature. Prediction relies on the ability to establish known relations between cause and effect, and to do so in a systematised, decontextualised way as is mostly the case with science. Scientific methods allow for routinisation of behaviour and the establishment of routines to solve standardised problems. This scientific bent is central in the education of professionals in different realms, albeit sometimes implicitly overstated, particularly in professions dealing with the complexities of society. Long-term consequences of human activity, social challenges and wicked problems reveal the misplaced belief in scientific methods based on predictive models that lack assumed validity. The difference in status between sciences representing predictive domains on the one hand, and those grappling with complexity on the other, may also say something about the fundamental ontology of at least western societies: that stability is seen as nobler than

change.⁵⁴ This belief goes back to the mechanical metaphors of early science, in turn mapping itself upon the Platonian notion of the universe as a rational place and attempting to provide explanations even in the realm of abstraction.

Rather, PD is a living practice—a communal real-world exploration premised on the belief that in every community there exist individuals or groups whose uncommon behaviours and strategies enable them to find better solutions to problems relative to their peers against all odds and without extra resources. As a practice, PD changes over time and across contexts. Consequently, it does not rely on an abstract, eternal formula of how to solve problems. Instead, PD does what it does in any specific context in space and time; it works by striving to improve human conditions *through* mobilisation of the immediate community.

Nonetheless, the PD approach has certain traits and attributes that can broadly be explicated as the so-called six PD “D” steps. These steps, generalised from the Vietnam malnutrition case (Table 1), are neither prescriptive nor sequential, and at best provide a roadmap for PD’s search for determining outliers and the discovery of their innovative practice variations. For PD, the starting point is the latent or unarticulated needs of an unmobilised local community in its actual context and practices. PD reverses the dominant logic and starts by asking the community what they believe are the problems to be addressed, inviting a variety of partners, stakeholders, and citizens. At its core, PD believes in the premise of the community ownership of the problem. It eschews the term “buy-in”, which has a colonial subtext. This willingness to have conversations, to listen deeply and to only proceed when the community is ready introduces qualities into the interaction that shape the community itself and its capacity to mobilise action.

53. Hammer and Champy, 1993

54. Tsoukas and Chia, 2002

TABLE 1: The 6 “D” Steps of the Positive Deviance Process in the Vietnam Case

6 “Ds” of PD	Illustrations from Vietnam Case
1. Define the problem	Some 65% of children in Vietnam were malnourished.
2. Determine the existence of statistical outliers	2,000 children were weighed by health volunteers and community members; some children from very poor families were well-nourished and their locations were plotted on a map.
3. Discover uncommon but replicable behaviours and practices	Community-led self-discovery involved interviews and observations in discovering PD behaviours and strategies: What were PD families doing that other families were not?
4. Design intervention	A two-week action-based nutrition program was designed and implemented; PD caregivers taught non-PD caregivers their strategies; non-PD caregivers practised the new recipes and PD behaviours.
5. Discern effectiveness	Feeding and monitoring continued; caregiver families could see a progressive weight gain in their children during the intervention.
6. Disseminate	The project expanded to 10 adjacent communities. Malnutrition decreased by 85% in the 14 PD communities. Over time, the PD intervention spread nationally to 298 communes, helping 2.2 million people (including 500,000 children). Four years later, a study confirmed the children’s and their siblings’ sustained nutrition status.

Adapted from: Singhal and Bjurström, 2015

PD reflects a belief in progress through change in the concrete world rather than in any abstract world of ideas. As such PD echoes insights that followed the early Enlightenment: that of a concretely emergent world and alongside it an interest in what’s new rather than what’s true. In this sense, it looks for exceptions and change rather than normality and permanence.

In so doing, PD changes the point of reference for the notion of validity in line with American pragmatism. Notably, it embraces an ethical dimension of validity, asking whether a change in our practice is *morally acceptable* rather than if it is true only in terms of correspondence between a formal depiction and the world it intends to represent. Having said that, PD is *not* about philosophy, but takes a pragmatic attitude

to philosophical issues: what matters is whether philosophy—or any other tradition of thinking—makes a difference in our ability to address the needs of a community and that community’s ability to improve life conditions in a morally acceptable way through emergence and change.

This means that PD is not a fixed formula for how to resolve problems. Rather, PD is distinguishable from other approaches through its tradition and ways of working. There is no way of knowing how this practice will emerge in a local context. While it would be tempting to define PD once and for all, it would basically contradict its basic emphasis on concrete practice in all of its contexts, as well as continuous emergence and innovation in the social world. We believe that our resistance to define PD and thereby turn it into an abstraction

is of pedagogical value: as PD is not defined, it becomes clear that PD is not about words, but rather about *worlds*.⁵⁵

While PD cannot and thus should not be defined, thereby turning into an abstraction, PD and its parts and dimensions can certainly be analysed in different ways. The above claims of a less than well-ordered and emergent world already mean a positioning on a fundamental ontological and epistemological level. Furthermore, this positioning has primarily to do with the domain where PD makes its claims, the domain of human progress. This does not deny the value of science in establishing correlations that may also be useful for PD endeavours. However, the positioning of PD highlights that such claims imply ontological and epistemological convictions that are sometimes taken for granted and claimed without reflection.

Essentially, there is no contradiction between using scientific data for finding inspiration on how to solve problems in PD practices. PD may use whatever tools and data that may be practical and morally defensible. The starting point in Vietnam was compiling the growth charts of all children under the age of five to determine their nutritional status, and then only was it possible to determine the presence of positive deviants. What differs from purely scientific endeavours is that PD is underpinned by the belief that problem solving is an unending endeavour and that validity with reference to any specific community is also a moving target.

In its broadest sense, PD may be classified within the family of design approaches that sees everybody as a designer,⁵⁶ that is, people shape their lives and environments through artefacts and their mere being. The value is placed here on people's direct experiences, echoing William James' (1890) basic definition of "attention" in his founding of psychology as a discipline: "Everyone

knows what attention is".⁵⁷ This direct reference to the lived experience is a common trait also for thinkers like Dewey ("flow of experience"), Freire ("critical consciousness") and Wittgenstein ("language games") in their search for the role of communication in problem-solving. This also implies issues of knowledge and power, in line with Rorty's question of what to do with ourselves. PD facilitates such reflective and problem-solving practices by looking for "what is new", directly referring to the actual, lived local experience.

Conclusion

PD attests to how microworld interactions may change the lives of individuals and communities, not through best practices or by reinventing the wheel, but rather by looking for unusual examples of local, contextualised innovation and adapting them for implementation in other settings. In so doing, PD borrows aspects from science and more unusual applications of the scientific method.

First, as any PD endeavour is open-ended, every project must qualify as some experiment, albeit a natural experiment, not a controlled one. The experiment takes place in a real-life setting for authenticity, with community members as co-creating subjects rather than mere objects of intervention or study. Second, PD is data-driven, based on reliable data that can be collected in any specific setting to guide the identification of positive deviants and then going the next step to discover their uncommon and effective practices. Third, while the experiment is done for the sake of solving wicked local problems, it may also generate more generalisable solutions in a way that the method not only identifies the positive deviants and discovers their innovative practices, but actively promotes the diffusion and adaptation of these practice variations by testing their validity in the social and practical context of other communities.

55. c.f. Rorty, 1989

56. Potter, 1969

57. William James, 1890

As such, PD finds itself on a continuum of more traditionally scientific methods and approaches serving the purpose of the diffusion of innovations. It does so by overcoming the non-economic obstacles to economic decisions about adopting innovative behaviour that increase well-being at no extra cost. Hence, what starts with traditional science in controlled but less authentic experiments and theorisation moves on to natural experiments, diffusion processes of negotiation in the microworlds of second-track processes, and acts of entrepreneurship driving such processes.

Eventually, those interested in human behaviour and social cognition must ask themselves what they are interested in—to describe normality or to do better. We contend that PD creates the conditions for collaborating partners to integrate their knowledge to self-discover new knowledge and innovative solutions to wicked problems and fashion the mechanisms to disseminate and implement them.

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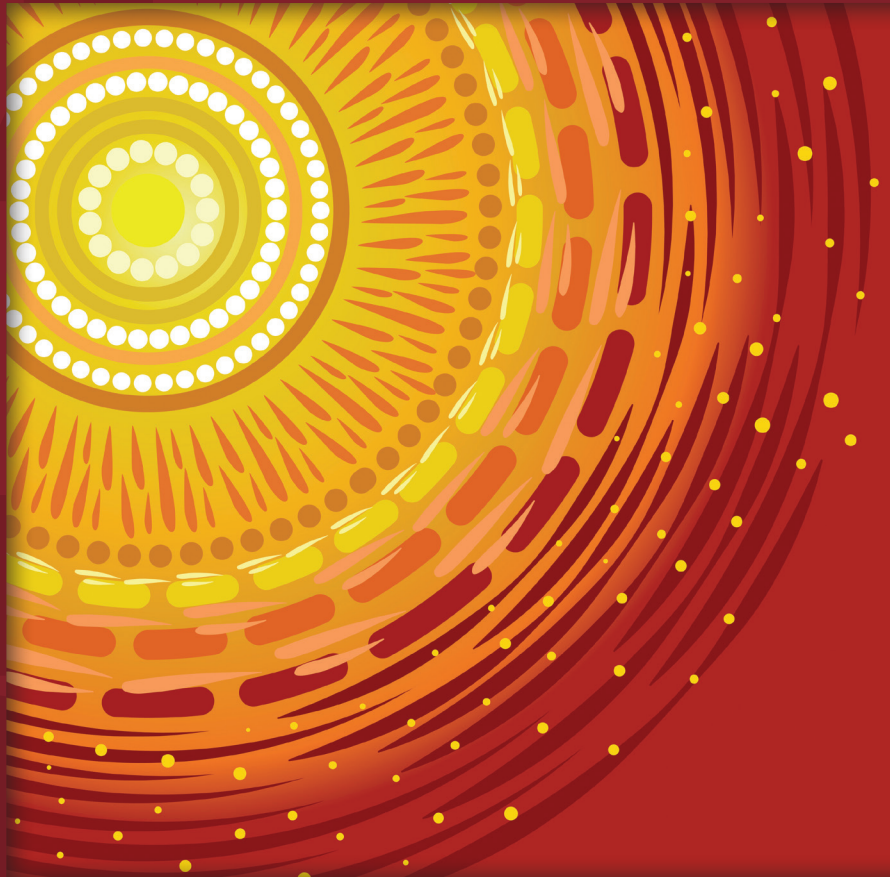
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