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Systems informed positive psychology

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ABSTRACT

Despite the rapid growth and uptake of the positive psychological perspective by researchers and general audiences, hype regarding the field's potential can lead to exaggerated claims, over-inflated expectations, disillusionment, dismissal, and unintentional harms. To help mature the field, we propose Systems Informed Positive Psychology (SIPP), which explicitly incorporates principles and concepts from the systems sciences into positive psychology theory, methodologies, practices, and discourse to optimize human social systems and the individuals within them. We describe historical underpinnings of SIPP, outline the SIPP perspective, clarify epistemological, political, and ethical assumptions, and highlight implications for research and practice. We suggest that SIPP can generate possibilities for creating sustainable unimagined futures.

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Systems informed positive psychology

Positive psychology (PP) focuses on understanding and building optimal functioning in individuals, organizations, and communities (Seligman & Csikszentmihalyi, 2000). Over the past two decades, PP has experienced rapid growth in publications (Donaldson, Dollwet, & Rao, 2015), developed numerous interventions and programs (Parks & Schueller, 2014), spread across multiple disciplines (Rusk & Waters, 2013), and has successfully connected with policy makers and the general public (e.g., Global Council for Happiness and Wellbeing, 2019; International Positive Education Network, 2017). Interventions derived from PP have been implemented with individuals, online, in schools, in workplaces, in communities, and beyond to help people to feel good, be productive, and potentially be inoculated from mental illness.

Despite the rapid growth and successes of the field, hype regarding the field's potential can lead to over-inflated expectations, disillusionment, dismissal, and unintentional harms. Like other innovative technologies, PP has benefited from many early adopters and advocates, such that the perspective has moved from a fringe area to a mainstage perspective, applied across diverse disciplines. Yet at times, sweeping causal and prescriptive claims are made, discourse over promises and under delivers, and interventions and programs are implemented that ignore the complex and dynamic

realities and varied contexts in which people reside. PP interventions are beneficial for some people, some of the time, in some places, and in some ways, but are far from panaceas.

Criticisms of PP have led to the growing sophistication of theories and research methods (e.g., Hogan, 2008; Kashdan & Biswas-Diener, 2014; Rusk, Vella-Brodrick, & Waters, 2018; Vázquez, 2013; Williams, Kern, & Waters, 2016) and increasing acknowledgement of the contextual nature of interventions (e.g., Brunzell, Stokes, & Waters, 2016; Ciarrochi, Atkins, Hayes, Sahdra, & Parker, 2016). These are the roots of maturity that can drive long-term productivity and sustainability for the field. We suggest that this movement towards sophistication should be formalized and integrated across PP, through what we call *Systems Informed Positive Psychology* (SIPP). SIPP explicitly incorporates principles and approaches from the systems sciences (SS) into PP theory, methodologies, practices, and discourse to optimize human social systems and the individuals within them.

In this paper, we first describe the landscape in which SIPP sits, providing reminders of PP's history, aim, and challenges, and introducing the systems sciences. We then present the SIPP framework, including the organizing purpose, systems principles that can usefully be applied to PP research and practice, explicit acknowledgement of our epistemological, political, and ethical assumptions, and implications for research and

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practice. Our intended audience is researchers and practitioners within and beyond PP who aim to support optimal functioning in individuals, groups, organizations, and communities, and who might incorporate the SIPP perspective into their respective contexts.

The sociohistorical landscape of SIPP

As PP and SS are diverse interdisciplinary areas, there are multiple perspectives about their histories, definitions, objectives, and contributions. We begin by providing one perspective on the sociohistorical underpinnings of SIPP, of which some readers may have alternative views. By explicitly acknowledging our viewpoint, we provide a frame of reference for understanding the challenges that SIPP aims to address.

The positive lens on human life

While the field of PP was officially founded as a sub-discipline of psychology in 1998, the perspective and principles underlying the field have existed throughout history (e.g., Froh, 2004; Kristjánsson, 2012). Concepts core to PP – such as happiness, gratitude, kindness, love, and compassion – are common themes within many major religions and philosophies of the world, existing since the early days of humanity. William James has been called ‘America’s first positive psychologist’ (Taylor, 2001, p. 15) as he considered what distinguished optimal human function and noted the importance of including subjective perspectives in understanding human experiences. Exceptional human beings and optimal functioning were a prime focus of personality psychologists and humanists throughout the 20th century (Froh, 2004; Rathunde, 2001; Taylor, 2001). Maslow (1954) first used the term ‘positive psychology’ in the 1950s. As a formal discipline, PP adds innovative methodologies and empirical evidence to age-old ideas.

At a broad level, PP theory, research, and application focus on understanding and building wellbeing, resilience, character, and related positive constructs (Seligman & Csikszentmihalyi, 2000). PP practices and interventions aim to develop strengths, skills, and resources to prevent mental disorder from occurring, foster resilience, and to help people live the best lives possible. This purpose has drawn together a community of committed scholars, practitioners, and followers, resulting in the PP perspective being incorporated within a broad range of disciplines (e.g., education, business, humanities, neuroscience, arts, law, health; Donaldson et al., 2015; Rusk & Waters, 2013).

Despite these successes, the field has also faced numerous criticisms. PP is in the business of wellbeing,

yet there is little consensus as to what wellbeing is, or even whether it is ‘wellbeing’ or ‘well-being’. Discourse and studies within PP have been accused of promoting unrealistic positive thinking, ignoring the impact of context and life experiences, incorporating circular reasoning and tautological assertions, and ignoring the important role that suffering plays in human experience (e.g., Coyne & Tennen, 2010; Held, 2004; Lazarus, 2003; Miller, 2008). Universal claims are made, even as theories and approaches are often tested with selective samples and are predominantly grounded in Western values and assumptions (Christopher & Hickinbottom, 2008). The majority of PP research focuses on individuals, with interventions predominantly addressing a person’s psyche while ignoring the broader social forces that impact upon that psyche and failing to acknowledge that individual wellbeing is interconnected with everything else. PP studies are also prone to ‘cookbookery’, in which study designs and analyses are forced into specific techniques that the researcher is familiar with (often a *t* test or ANOVA), but are misaligned with the purpose and intention of the study, or ‘mathematistry’, in which elegant statistical solutions are created that have little forbearance on real world processes (often seen in complicated structural equation models tested with cross-sectional data) (Box, 1976). While scholarship within the field has matured over the past decade, such nuances are often not translated into everyday discourse, with activity running ahead of the science, the proliferation of maverick providers with questionable programs, and rhetoric that overclaims what PP can do (White, 2017; White & Kern, 2018). While alternative approaches may not stem such misuses of the science, the unacknowledged assumptions that drive common practices and discourse in the field limit the efficacy and capacity for wellbeing practices to be embedded in real world contexts in a sustainable manner.

Insights from the system sciences

A system is ‘a set of things ... interconnected in such a way that they produce their own pattern of behavior over time’ (Meadows, 2008, p. 2). Systems can range in size from very small (e.g., neural networks in the brain) to very large (e.g., a country). Here we focus specifically on human social systems – anywhere that humans come together in an inter-connected way, such as families, schools, businesses, hospitals, non-profit organizations, and neighborhoods. The elements within a system dynamically interact with one another, producing a whole that is something other than the sum of the parts (Sevaldson, 2014). Systems often have a shared purpose (Kim, 1999).

For instance, a school system might have the purpose of cultivating socially responsible individuals with the skills needed to be successful in life. Different parts of the system allow the system to function in an optimal manner and interact with one another in a dynamic manner. Intervention on one part of a system impacts upon other parts, which can result in unintended consequences when we fail to see and understand the whole system. For instance, imagine that a student is teased at lunchtime. In response, the student is disruptive in class, triggering a reactive response in the teacher, who then is unable to adequately meet the learning needs of other students in the classroom. Those students later exclude the disruptive student from their social groups, resulting in the student being even more disruptive in successive classes.

The systems sciences (SS) comprise a diverse, interdisciplinary set of areas that study the nature of systems – from simple to complex – in nature, society, and in science itself (M'Pherson, 1974). SS focuses on inter- and trans-disciplinary dialogue and application that generates theory and methods that are useful across a broad range of fields. SS has been described as a perspective, a way of thinking, an approach to research, a language with a unique vocabulary, and a set of tools for understanding and communicating about systems (Kim, 1999; see also Hieronimi, 2013 for a visual overview).

SS originally arose from logic and mathematics (e.g., Mandelbrot, 1982). Early work – the *hard systems* tradition – began with the work of von Bertalanffy (1956), who suggested a cybernetic approach that focused on developing computer models of systems and explicitly identified the role of feedback and regulations within the system. This was further developed into system dynamic modeling, which quantified dynamic relationships within the system (Forrester, 1961). However, the hard systems perspective was criticized for ignoring social aspects of humanity and complexities of life that could not be captured by quantitative models alone. *Soft systems thinking* thus evolved, which emphasized social constructions of reality, acknowledgement of multiple perspectives, and the need for open dialogue around complex problems. Soft systems approaches are more phenomenological and interpretative in nature and acknowledge messiness in defining and solving problems. However, scholars increasingly argued that inherent structures of society create power imbalances and inequities that impact who has voice within the system. Consequently, *critical systems thinking* arose, which focuses on issues around power, ethics, and boundaries of a system, and suggests that real social change only occurs when the boundaries of who is included when defining problems, generating solutions, and affecting change is expanded to include all relevant voices. Considerable work continues to occur

across these areas and beyond, including cybernetics, dynamical systems theory, complex systems, control theory, systems biology, systems ecology, system engineering, and systems psychology (Hieronimi, 2013). We suggest that PP can benefit from being informed by and drawing on aspects of these systems traditions.

Work within SS explicitly acknowledges and addresses the complexity of the real world, including interrelationships of its elements, multiple perspectives, temporality (i.e., changes over time) and the difficulties this creates in replicating results, shifting patterns of behavior, unintended consequences, and recognition that parts cannot be studied in isolation from the whole. As systems are open and changing, SS models often incorporate complex trajectories and structures, acknowledging that there are often no single solutions or best practices to address problems. Many systems scientists believe that SS is necessary to handle the complexities facing the world in the coming decades (Arnold & Wade, 2015). The theories, models, and approaches that have been developed through SS provide deeper understandings of the structures of systems, how systems drive behavior, dynamic interactions amongst elements of a system, sources of problems, and which characteristics of a system might hold solutions for those problems.

SS has developed a range of tools that can be used to understand and address the complexity of human life (see Williams & Hummelbrunner, 2009), identify leverage points (i.e., points in the system where small actions have the greatest impact or influence on the system; Meadows, 1999), and take actions to impact upon that system (M'Pherson, 1974). Methods include agent-based modeling (Wilensky & Rand, 2015), causal loop diagrams (Senge, 1990; Sterman, 2000), critical systems heuristics (Ulrich & Reynolds, 2010), group model building (Vennix, 1999), social network analysis (Wasserman & Faust, 1994), system dynamics (Forrester, 1997; Sterman, 2000) and soft systems modeling (e.g., Checkland & Scholes, 1999; Williams & Hummelbrunner, 2009). Such methods and tools enable valid inferences about behavior, identify optimal places to intervene, and foster informed strategies to generate effective approaches to change.

Systems informed positive psychology

We propose that for PP to mature as a field and sustainably build individual and collective wellbeing for current and future generations, there is a need to intentionally apply systems thinking, principles, and approaches to PP theories, research, interventions, and practices. We call this *Systems Informed Positive Psychology* (SIPP). Figure 1 summarizes the SIPP perspective, which has a shared

purpose, draws on systems principles, and makes several philosophical assumptions, all of which are interconnected with the self, others, and nature. We briefly describe these elements below.

Shared purpose

SIPP aims to cultivate the wellbeing of human social systems, enable system co-evolution, and create positive unimagined futures. As such, it is not value free, but rather is a normative endeavor, driven by collectively negotiated, agreed upon, and embodied values of a given system. SIPP aims to acknowledge and illuminate the complexities and inter-relatedness that exist in this world, in ways that empower individuals towards collective action, rather than helpless avoidance. And SIPP aims to foster a personalized, collective, strategic, and systemic approach to creating the conditions that allow human social systems to thrive, while simultaneously empowering individuals within the system.

Systems principles informing the SIPP perspective

We suggest that several SS principles usefully inform PP theory, research, and practice. Other SS principles may also be relevant (see Kim, 1999; Williams & Hummelbrunner, 2009 for accessible descriptions), but those outlined below are most central to the SIPP perspective.

Interconnectedness

Systems are more than a collection of parts; elements within the system are connected and inter-dependent (Kim, 1999). If we fail to understand the interrelatedness of things, solutions often cause more problems. Interconnectedness raises questions about what is connected across the system, enablers and barriers of connection, and consequences of these connections. It also points to the complexities of different relationships, their structures, the processes between them, and the patterns and consequences that emerge through the dynamic intersections of parts within the system (Williams & Hummelbrunner, 2009).

Dynamics

The interconnected nature of elements within a system means that any action within one part of a system constantly interacts with other parts of the system, which are also changing and responding to one another. While we might use static, linear models to represent relationships, stability and change occur in dynamic, non-linear ways.

Boundaries

The way in which we define a system determines who and what is included in our enquiry or practice. Boundaries are practically necessary, but also define what is visible and invisible and determines who is consulted, involved, excluded, and marginalized (Meadows, 2008; Midgley, 2008).

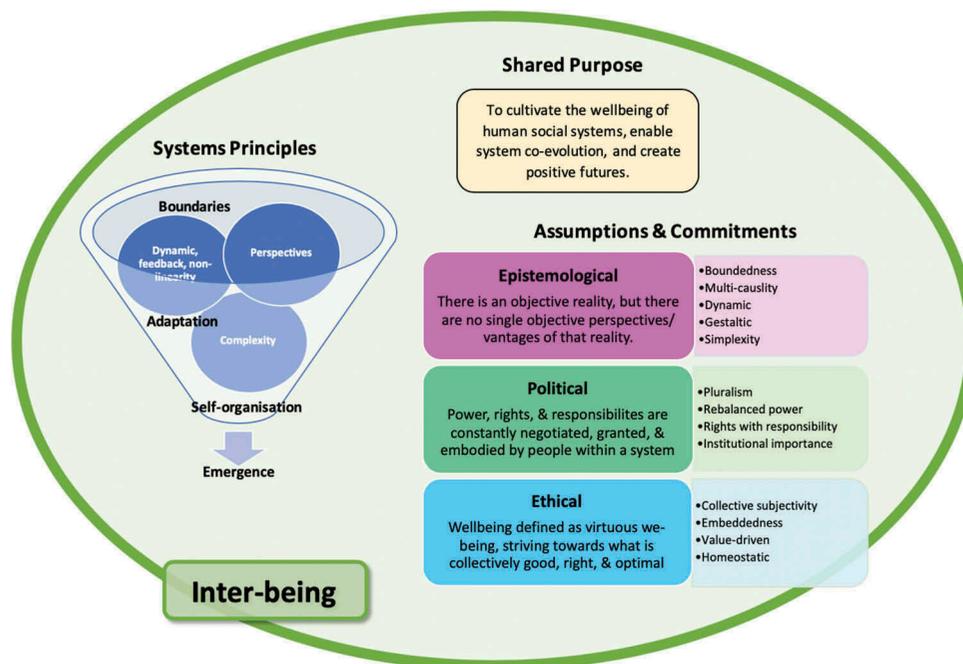


Figure 1. The SIPP perspective, which has a shared purpose, draws on systems principles, makes epistemological, political, and ethical assumptions, all grounded in the broader assumption that humans inter-dependently co-exist with themselves, others, and the environment in which they exist (i.e., inter-being).

Perspectives

As people perceive and experience situations in different ways, different stakeholders may share similar or different perspectives. A single stakeholder may also hold multiple perspectives of the same system (Williams & Hummelbrunner, 2009).

Adaptation and emergence

As systems are constantly changing and evolving, well-functioning systems adapt over time. Adaptation emerges as interconnected system elements develop collective behaviors that are more complex than previously demonstrated. Emergence results from complex interactions and can come about in leaps and bounds as systems reach alternative states.

Self-organization

Systems have a distinct capacity to come together in an organized manner, creating a new form or structure (Kim, 1999). Such communal behavior is internally driven, not externally imposed (but can occur in response to external/contextual pressures), and often occurs in dynamic, non-linear, unpredictable ways.

Underlying assumption: Inter-being

SIPP assumes that humans inter-dependently co-exist with themselves, others, and the environment in which they exist. Hanh (1975) termed this inter-dependency as

‘inter-being’ – we do not exist on our own, but because of and in connection with the systems in which we reside. While the importance of social relationships appears within many PP theories and interventions, the focus is primarily on benefits for the individual. SIPP assumes that the individual cannot be separated from the broader social and non-social systems that they are a part of. As such, values, activities, and ways of being must recognize and strive for environmental, social, and economic sustainability, which goes well beyond the individual.

Philosophical assumptions

As summarized in Table 1 and described in greater detail below, SIPP makes several epistemological, political, and ethical philosophical assumptions (what we accept as true) and related commitments (beliefs that we subscribe to but may evolve over time based on evidence, negotiation, etc.).

Epistemological assumption

One of the core claims made by PP scholars and practitioners to distinguish the field from the multi-billion-dollar self-help industry is that it is scientific (e.g., Rusk & Waters, 2013; Seligman & Csikszentmihalyi, 2000). The validity of this claim rests on generally unacknowledged assumptions about what ‘science’ is. PP intervention research is primarily grounded in the naturalist perspective, which assumes that

Table 1. SIPP epistemological, political, and ethical assumptions and commitments.

Epistemological
<p>Assumption: There is an objective reality, but there are no single objective perspectives/vantages of that reality.</p> <ul style="list-style-type: none"> ● Boundedness: Boundaries are set by the observer, explicitly or implicitly. ● Multi-causality: Human-relevant phenomena have multiple causes. Things only appear to have singular causes when boundaries are narrowly defined. ● Dynamic: Human systems are dynamic, reactive to observation, and change in unexpected ways. ● Gestaltic: As multiple perspectives, using multiple methods, across multiple periods and settings come together, an understanding of reality emerges that is different from the sum of the parts. ● Complexity: Human systems are complex, but individuals within those systems desire simplicity. Explicit acknowledgement of boundaries allows parsimonious explanation, identification of leverage points, and more effective interventions.
Political
<p>Assumption: Power, rights, and responsibilities are negotiated, granted, and embodied by people within a system.</p> <ul style="list-style-type: none"> ● Pluralism: Diversity in perspective is expected and should be tolerated. Values and ideals should be deliberated and socially constructed. ● Rebalanced power: Human systems function optimally with equity across parts and appropriate distributions of power. ● Rights with responsibilities: All individuals have the right to wellbeing as well as the responsibility for nonmaleficence and benevolence towards others. ● Institutional importance: Institutions play a critical role in upholding the moral fabric of society, as they structure and order individual expectations and behaviors through value transmission, social norms, legislation, and regulation.
Ethical
<p>Assumption: Wellbeing is defined in terms of virtuous we-being, striving toward what is collectively good, right, and optimal.</p> <ul style="list-style-type: none"> ● Collective subjectivity: Wellbeing is experienced subjectively but defined collectively, negotiated across individuals and communities within the system. ● Embeddedness: Wellbeing cannot be separated from the socio-historical context and perspectives of people within the system. ● Value-driven: Wellbeing optimally occurs by living according to values that are established, defined, and maintained by communities. ● Homeostatic: Hedonic and eudaimonic elements of wellbeing provide feedback individually and collectively of success or failure in striving towards the negotiated ideal sense of wellbeing.

the social sciences are an extension of the natural sciences. Methods are reductionistic, reducing explanations to a series of testable falsifiable hypotheses, which are refined and supported through repeated testing, resulting in single plausible cause and effect relationships. The researcher is assumed to be an objective observer (Midgley, 2008). When intervention does occur, the researcher remains independent, with gold standard evidence being randomized control designs. The independence of the researcher is then evaluated by other researchers; through replication and peer review, studies confirm that results are due to the intervention, rather than the actions or interpretations of the researcher (Popper, 1959).

In contrast, interpretists assume that social phenomena can never be objectively observed, but are always open to interpretation (Alexandrova, 2017). The researcher is interconnected with the system that they are observing or intervening upon. The researcher brings his or her own background, perspective, interpretations, and experiences into the study. Further, as it is impossible to observe the entire system – including every person across every situation – one's perspective has boundaries, which are necessary to make sense of and intervene upon the system. Generalizability matters less than identifying the conditions in which findings occur (i.e., boundaries around a finding).

Considering the intended participants (humans from diverse backgrounds), settings (applications in everyday life), and constructs (abstract in nature) involved within PP research, SIPP aligns with the interpretist perspective, and is constructivist in nature. We assume that while there is an objective reality, humans do not have an objective vantage of that reality. Subjectivity enters into the definition, operationalization, and measurement of the constructs that PP scholars and practitioners are interested in. While the use of quantitative data provides PP researchers with a sense of objectivity, the measures used and the analyses performed reflect the biases of the researcher.

Human social systems are complex and dynamic, such that human related phenomena have multiple causes and change and adapt over time. Numerous systems tools and approaches have been developed to map and make sense of this complexity (Kim, 2000; Williams & Hummelbrunner, 2009), which can be used to inform the landscape in which PP research and practice occurs. At the same time, incorporating complexity into practice is often demobilizing (e.g., the paradox of choice; Schwartz, 2004). The key for interventions becomes identifying simplicity within the complexity (i.e., 'simplicity') – leverage points that have a big impact with the least amount of effort (Meadows, 1999). For example, Walton (2014) describes

'wise' interventions – brief interventions that have long lasting impact. These interventions are precise – targeting specific psychological processes (e.g., one's mindset or the interpretation about one's experiences) that may contribute to broader social problems (e.g., internalizing or externalizing behaviors, social isolation). They impact recursive processes – beginning with shifting how a person makes sense of and interprets his or her situation and experiences, and leading to changes in thoughts, behaviors, and emotions. And they are context dependent – requiring rigorous evaluation to understand when and under what conditions they are effective. Traditional laboratory based experimental studies form an important part of the scientific process – isolating processes that may be causing some of the behaviors that appear in everyday life, pointing to potential leverage points. Parsimonious models based upon specific theories of change often provide approximations of more complex real-world processes, even if they are wrong (Box, 1976). These findings can then be used to inform specific theories of change, which can be tested in the real world, rigorously evaluating when and under what conditions the expected causal processes break down, ultimately leading to better theories and more effective interventions.

From the interpretivist perspective, systematic observation and intervention should include ongoing reflection of boundaries (including what is studied, who is included, and the context of application), triangulation of findings across multiple methodologies, and ongoing consideration of actions needed for improvement, in consultation with key stakeholders involved (Midgley, 2008). By explicitly defining the conditions of studies, it allows a greater understanding of when and how results occur. Continuous iteration between theory and practice are critical for a practical science (Box, 1976). As enough situationally contextualized findings accrue, theory and practice iteratively inform one another. And as multiple perspectives across multiple methods, periods, and settings come together, a Gestaltic understanding of reality emerges, with clearer guidance for effectively aligning specific interventions to specific contexts.

Political assumption

Most PP theories are implicitly based upon the moral and political philosophy of liberalism, in which primacy is given to the liberty and equality of the individual. From the classical liberalism perspective, the self is seen as unique, choice is central, and human action is instrumental for change to occur (Banicki, 2014). Individuals are central to social order. Each person has the right – ethically and politically – to pursue (or not pursue)

happiness, in the manner that they wish, provided they do not harm others. Social and political structures exist to protect individual freedoms, but otherwise should minimally interfere with personal liberty.

The primacy of individual rights appears across PP concepts such as autonomy (Deci & Ryan, 2008), psychological wellbeing (Ryff, 1995), agency (Snyder, 1994), self-efficacy (Bandura, 1997), and accomplishment (Seligman, 2011). PP interventions place the individual at the center of purpose and action. Yet theories and interventions grounded in individualism fail to account for the complex social relationships in which people are embedded. What is beneficial or harmful depends on the people involved, which is often defined by those in authority and power. This can result in a number of unintended consequences, as solutions and processes misalign with the needs and perspectives of the recipients of those interventions. PP theory has been primarily based upon an individualistic Western perspective and as PP extends globally across cultures, it raises questions around the centrality of the individual, the universality of moral principles, and the responsibility of action.

Communitarianism is a response to liberalism; while valuing freedom and rights, it shifts the focus from the individual to the community (Etzioni, 1995). Rather than the good being imposed by the church, state, corporations, or others with power and control, the community is free to deliberate, resulting in a shared formulation of what is valuable and good. SIPP aligns with this perspective, assuming that people exist within and cannot be separated from the larger human systems in which they reside. Power, rights, and responsibilities are thus constantly negotiated, granted, and embodied by people within that system, either consciously or unconsciously.

This implies a shift in power and authority structures, which emphasizes equity, with the appropriate distribution, granting, and embodiment of power. Social institutions (e.g., families, schools, churches, governments, organizations) play an important role in upholding the moral fabric of society, with the responsibility to provide structure and order expectations and behaviors of the community through the ongoing transmission of culture and shared values, norms, regulations, and sanctions. A good society balances liberty with social order and individual rights with social responsibilities, with individual and collective behaviors driven by pluralistic and socially established values.

Ethical assumption

We assume that wellbeing is defined in terms of virtuous 'we-being'. By we-being, we mean that human social systems are oriented toward goodness as an end itself (Cameron, Mora, Leutscher, & Calarco, 2011),

and what is considered right and good is collective in nature, striving towards what is best for human social systems collectively and the larger system and environment in which we reside. All cultures and groups have traits, behaviors, and mindsets that are seen to be virtuous, representing what that system aspires to (Cameron, et al., 2011; Peterson & Seligman, 2004). Like positive organizational scholarship (Cameron et al., 2011), SIPP goes beyond eliminating and managing what is problematic and necessary, focusing on what is good, right, and possible.

This assumption raises the question of what is meant by wellbeing and the good life, and the implications that definitions have on intervention and practice. The definition of wellbeing has been debated within and beyond PP across centuries, and numerous models and frameworks have been developed. Just as all statistical models are wrong, as they only approximate reality (Box, 1976), all wellbeing models are limited, as they are dependent on the perspective and experiences of the theorist. Indeed, a growing number of studies find that wellbeing models are often overlapping and non-differentiating (e.g., Goodman, Disabato, Kashdan, & Kauffman, 2018). This is not surprising – they focus on subjective wellbeing, and when a person is functioning well in one area, they often function well in other areas. And yet wellbeing models are practically useful, anchoring activity and providing a shared language (McQuaid & Kern, 2017). The thought, study, and effort that has gone into developing different wellbeing models provide a useful starting point, which can then be adapted to the local context.

Any attempt to define the 'good life' is contingent upon judgments of what is worthwhile, which cannot be determined statistically but rather is contextualized, value-driven, and socially constructed. Wellbeing is something that is valuable to human beings (Alexandrova, 2017), but what is considered to be valuable is inseparable from the socio-historical context and perspectives of people within the system. As such, while wellbeing may be experienced subjectively, it is defined collectively, continually negotiated across individuals and communities within a system. There are things that we do because they feel good (hedonism), or because we function well (eudaimonism), but we feel or function well because it fits with our values, which are defined by the social groups that we belong to (Tiberus, 2018). Wellbeing thus arises from living aligned with one's values, which are constantly defined by, negotiated, and embodied by people within and across systems.

Notably, the definition and pursuit of the good life becomes increasingly challenging as the complexity of

social systems increases. As society has become more interconnected and globalized, values clash with one another, at times peaceably, other times forcefully. The pursuit of happiness for the individual, based on one's own values system, can unintentionally negatively impact the wellbeing of others with a different value system, with consequences often removed in space and time. As individuals, organizations, communities, and societies increasingly focusing on wellbeing, it is crucial that virtuous concepts such as benevolence and goodness remain central to our definitions, multiple perspectives and experiences are acknowledged and included, and both individuals and broader systems commit to and are held responsible for creating collective goodness.

Implications for research and practice

Finally, we consider implications of SIPP for PP research and practice (see Figure 2). First, practices are needed that allow us to become aware of our systems, ways of being, perspectives, and paradigms, while maintaining a sense of empathetic wonder. SS provides numerous

tools and techniques that foster system awareness (e.g., Kim, 2000; Senge, 1990). For instance, Theory U provides an approach for sensing paradigms within the system and collectively co-creating unimagined alternatives (Scharmer, 2018). Appreciative inquiry provides a process for surfacing different perspectives and developing a shared purpose (Cooperrider & McQuaid, 2012). Before action, we need to seek first to understand different perspectives, appreciating and embracing diversity.

Second, boundaries need to be explicitly defined, identifying who is included or excluded at any given time, while recognizing that such boundaries are fluid and defined for practical purposes only (Meadows, 2008). Most PP interventions implicitly define boundaries at the individual level. SIPP adds an explicit focus on the individual system embedded within broader social systems and encourages moving beyond the individual to incorporate these systems. By being aware of, clearly defining, and purposefully broadening boundaries, we can ensure that different perspectives within those boundaries have a voice in how goodness is defined, the outcomes desired, and the processes



Figure 2. SIPP implications for research and practice.

followed. At the same time, it is necessary to recognize that the boundaries of any relationship, group, or organization are porous – we live and work in ecosystems where there are multiple layers of reality in operation at any one time. System interactions are both conscious and unconscious, limited by our direct and indirect connectedness and often extend way beyond the boundaries of a single institution.

Third, there is a need for closer integration between theory, research, and practice. Many interventions that were developed and tested by researchers in laboratories or online with willing participants under controlled conditions look very different to how these interventions are implemented and applied in everyday contexts such as schools and organizations, where the isolation of boundaries to individuals is not practically possible. Modifications of the original intervention might reflect helpful adaptations for local contexts or might be diluting and changing the intervention such that practices are not actually evidence informed (Halliday, Kern, Garrett, & Turnbull, 2019; White & Kern, 2018). Rather than claiming that a study provides evidence that an intervention ‘works’, rigorous processes are needed that identify the conditions under which interventions are beneficial, how interventions are implemented, and factors that impact the implementation process (e.g., Cahill et al., 2019). Practice needs to be informed by research, and research needs to be informed by practical application, with continuous iteration between theory and practice, making it possible to understand the complexity that practitioners live and breathe every day. There needs to be continual adaptation and review, with adjustments to models, principles, and recommendations for practice as a deeper understanding of different interventions is developed. We need to observe when things work and recognize the limits of our knowledge. Then, with mindful awareness, we need to identify new patterns as they emerge, challenge the boundaries we have created, flex our interventions, and continue to observe what emerges, ultimately growing our capacity to observe and intervene upon broader systems.

Fourth, the growing diversity in methodologies that have been used within PP should be encouraged and expanded. There is a need to move beyond simplistic studies claiming causal relationships between two (often highly correlated) constructs or evidence for an intervention based on statistical significance, often with a poorly designed study. Studies are needed that carefully test psychological processes under controlled laboratory conditions, which are then replicated across multiple settings, multiple populations, varying conditions, shifting time periods, and with varying levels of

control, identifying boundaries and conditions of causal processes. Rigorous field experiments informed by specific theories of change are needed, complemented by qualitative and mixed method approaches and longitudinal designs that inform those theories. Priority should be given to multi-method, multi-modal, multi-site approaches.

Fifth, discourse within PP research and practice needs to be carefully considered, moderated, and at times sanctioned. Researchers should aim for explicit acknowledgement and definition of the boundaries of studies and claims, identifying the size of effects that occur, with what people, under what conditions, following what practices. This aligns with broader recommendations for the social sciences, which emphasize moving away from statistical significance to consider the size and contexts of effects (Wasserstein, Schirm, & Lazar, 2019). Practitioners should avoid over-claiming evidence for PP interventions, acknowledging that interventions may or may not be beneficial, depending on the person, context, and purpose of the intervention.

Finally, responsibility for wellbeing resides in individuals, institutions, and the systems in which they reside. Each part of the system is responsible for what is within its control. We need to simultaneously create environments that support wellbeing while providing individuals with strategies and motivation to change – building opportunity for and capacity within the system for awareness and action, while also fostering individual and collective agency to co-create we-being.

Conclusion

As a society, we are living in a time of accelerating and concurrent change, including shifts in technology, social values, economic realities, and environmental sustainability. New and unpredictable challenges are emerging, posing challenges in navigating and making sense of the rapidly changing context. This instability is apparent in the global mental health crisis; the vast amount of environmental destruction, pollution, and climatic shifts; and in the growing number of disparities, refugees, violence in schools, and widespread divisions across class, race, gender, religion, and political domains. These are ‘wicked problems’ (Churchman, 1967; Rittel & Webber, 1973), which call us to be innovative in the ways in which we both conduct research and how we deliver interventions to address these challenges.

The complexity of the modern world requires intellectual flexibility and multi-disciplinary approaches. Rather than immediately reacting to problems, this

complexity requires first taking time to sense and understand the bigger picture, including learning from history, listening to multiple perspectives with a sense of empathic wonder, and identifying potential intended and unintended consequences, and then mindfully proceeding with action. It impacts the questions that are asked, what is measured, the analyses used, and the conclusions drawn. And it requires creating capacities and strategies within individuals, organizations, communities, and societies that collectively move towards and co-create previously unimagined positive futures for human social systems.

SIPP returns to the wisdom of Aristotle, beginning ‘to construct a science (both basic and applied) of the good life that has an eye to the subtleties and complexities of change in human systems’ (Hogan, 2008, p. 729). The frameworks, tools, and methodologies of SS can move PP from a science of individual wellbeing to a science of collective benefit. SS offers tools for synthesizing information, data, theories, and the language of different disciplines. PP adds an optimistic belief about what the future can hold, opening the possibility for yet unimagined solutions that allow both current and future generations to thrive. PP also adds practices and strategies that can motivate people to change and bring that positive future about. By letting go of bold claims made upon weak causal models and acknowledging the complexity of human experience, pathways and key factors that influence individual and collective wellbeing can be identified, ultimately resulting in better-informed, more effective interventions and strategies that transcend current constraints and allow human social systems to thrive.

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