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– comment on Hohberg et al.

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Reorganizing after the Pandemic: A Chance to Energize Physical Activity Promotion

Commentary on What is needed to promote physical activity? – Current trends and new perspectives in theory, intervention, and implementation

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The authors of “What is needed to promote physical activity? – Current trends and new perspectives in theory, intervention, and implementation” detail the many health, social, and economic benefits of moving more and sitting less within the context of so many children, youth, and adults struggling with being active enough to fully realize these benefits. They highlight evidence that regular physical inactivity and sedentary behaviour have also increased for many during the COVID-19 pandemic, resulting in the importance of initiating and sustaining physical activity promotion initiatives that span local to global communities. While effective promotion initiatives are founded on socioecological whole system approaches, the authors highlight a focus on the role of individual is still essential for downstream uptake of physical activity, and that new advances in affect science and dual process theories should be at the forefront of this approach. They further note that capitalizing on new technology (e.g., real-time data, ecological momentary assessments) will further achieve these future directions. I am in agreement with the authors and expand briefly on some of these points below.

In 2011, I co-authored a critical review about the state of physical activity theory with Claudio Nigg (Rhodes & Nigg, 2011), where we suggested that rationalist social cognitive approaches may be reaching their research limits of innovation and utility; instead, approaches that considered physical activity affect as their centerpiece may hold promise in better understanding movement behaviors. In 2018, I co-edited, along with David Williams and Mark Conner, the first text on affective determinants of health behavior (Williams et al., 2018), in order to move research forward on this topic. Thus, it is not surprising that I fully support the testing, development, and assumptions underlying affective-reflective theory, as highlighted by the authors. I also encourage readers to explore related theoretical approaches such as the affect and health behavior framework (Stevens et al., 2020), and the theory of effort minimization

(Cheval & Boisgontier, 2021), among other innovative approaches that include affect within dual process models in the physical activity context (e.g., Conroy & Berry, 2017; Strobach et al., 2020). As the authors also note, real time data-capture, in addition to more sophisticated longitudinal dynamic modeling (Ruissen et al., 2021), will now allow researchers to better test the assumptions within affect models and these should translate to more accurate just-in-time intervention approaches.

In addition to this burgeoning research on dual process theories and affect-driven behavior, however, it is still important for researchers and practitioners to focus on the role of reflective factors, such as building strong intentions to engage in physical activity, and subsequent self-regulation skills to translate these intentions into action (Rhodes et al., 2021). Few people engage in physical activity without the intention to act, and many people still do not hold positive intentions to change their behavior (Rhodes & de Bruijn, 2013), so the foundations of social cognitive approaches to building intention hold considerable utility in research and practice. Furthermore, self-regulation tactics such as self-monitoring, planning, and emotion regulation continue to emerge as the most important mechanisms of action in successful interventions (Knittle et al., 2018; Pears & Sutton, 2021; Rhodes, Grant, et al., 2020). As the authors note in affective-reflective theory, self-regulation and control is still a driving determinant of behavior; learning to like physical activity will have an upper limit for many (Ryan et al., 2009), so it stands to reason that interventions focused on maximizing self-regulation skills are foundational.

I also agree with the authors that furthering our understanding on the distinctions between initiation and maintenance of movement behaviors is important to advance theory and practice. To advance, we first need to put forward more precise definitions for these processes beyond a

simple time-frame of behavioral performance (Rhodes & Sui, 2021). The authors suggest that “flexible habits” may assist in understanding the maintenance process, particularly in a post-COVID landscape with so many interruptions to behavioral pattern. I agree that shifts between habit responses and consciously motivated behavior is the most reasonable way to conceptualize how habit determines complex behaviors like physical activity (Gardner et al., 2016; Rhodes & Rebar, 2018). However, I also encourage readers to consider other apex-system variables such as self-identity (i.e., self-categorization) and social identity (group memberships) in behavioral maintenance (Beauchamp & Rhodes, 2020; Rhodes, 2021). For example, research predicting physical activity during the pandemic found that the most powerful predictor of adherence was identity or related constructs, and not habit (Petersen et al., 2021; Rhodes & Lithopoulos, 2022; Rhodes, Liu, et al., 2020; Rhodes et al., in press; Volz et al., 2021). Habits are based on the forging of stimulus-behavior bonds from repetition within the same context over time (Gardner & Rebar, 2019; Rebar et al., 2020). By contrast, identity is theorized to motivate behavioral activation reflexively in the face of stimuli that suggests contrary feedback to their identity in order to minimize dissonance (Burke & Stets, 2009). Life during the pandemic has been difficult, with a break in predictable routines (Garre-Olmo et al., 2021; Glowacz & Schmits, 2020) so it is not surprising that identity was the most important self-regulating system in maintaining physical activity (Caldwell et al., 2018).

Finally, as the authors note, there is now overwhelming evidence that sitting less and moving more is essential to human health and development (2018 Physical Activity Guidelines Advisory Committee, 2018), even if particular dose-response thresholds (e.g., sedentary behavior) are still in the evidence gathering phase and pose a matter of debate (Ross et al., 2020). While the authors rightly emphasize the health benefits and economic burden of physical

inactivity and sedentary behavior, the role of movement behaviors to assist in alleviating mental health (depressive and anxiety symptoms, perceived stress, negative affect, life satisfaction), and family function (cohesion, organization, affect environment) declines during the pandemic (Giuntella et al., 2021; Prime et al., 2020) cannot be overestimated. Finding meaning in movement behaviors beyond exercise, including ways to substitute mechanized transport (Bernard et al., 2021), will assist in increasing physical activity prevalence; overall, reorganizing and reenergizing after the pandemic to promote physical activity has never been more important.

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