Modeling a Demonstration Effect: The Case of Track Cycling Competitions at the 2015 Pan Am Games

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The Town of Milton, Ontario constructed the Mattamy National Cycling Centre, which hosted the Toronto 2015 Pan Am Games’ track cycling competitions. The Centre houses the only Velodrome of its kind in Canada. Thus, staging elite competitions in this venue provided a unique opportunity to enhance the visibility of track cycling, and improve access to such sporting opportunities in surrounding communities that were previously unavailable (Potwarka et al., 2014). Milton hoped staging the event would inspire future generations of track cyclists of all ages and abilities, thereby creating a track cycling “culture” for years to come. Such legacies are often justified by notions of demonstration effects. “The ‘Demonstration Effect’ is a process by which people are inspired by elite sport, sports people, or sports events to participate themselves.” (Weed, 2009, p. 4). Few studies have offered empirical models of the demonstration effect, and salient social-psychological processes and mechanisms that may be involved in explaining this phenomenon are not well established (Potwarka, 2015). Recently, for example, Boardley (2012) called for theoretical explanations that address the question: can viewing the Olympics influence sport participation? Therefore, the purpose of our study was to improve our conceptual understanding of how consuming a sport event might translate into (i.e., “inspire”) new sport participation. To achieve this purpose, we developed a conceptual model of a demonstration effect, which posits that an event-evoked state of inspiration mediates (explains) relationships between the nature of the sport consumption experience (i.e., watching live track cycling competitions) and intention to try the new sporting activity on display (i.e., intention to track cycle).

Madrigal (2006) conceptualized the nature of sport event performance consumption as a multidimensional concept consisting of two higher-order factors (autotelism, appreciation), which are each comprised of three unidimensional factors: flow (absorption, loss of sense of time); fantasy (fantasizing being part of the action); evaluation (making value judgments about the quality of performances); personalities (focusing attention on specific athletes); aesthetics (appreciation for the grace and beauty of the sport); and the physical attractiveness of competitors respectively. Based on previous research exploring cognition-emotion-behavior relationships and receptive engagement (e.g., Haidt, & Keltner, 2003; Funk et al., 2011), these dimensions were hypothesized to influence intention to try track cycling directly, and indirectly through their influence on Thrash and Elliot’s (2003) psychological construct of state inspiration. Thrash and Elliot argued that regardless of the social behavioral domain (e.g., sport, art) or stimuli (e.g., watching an Olympic event), inspiration can be conceptualized and measured in terms of three core characteristics: transcendence (gaining awareness of better possibilities), evocation (the experience of inspiration is drawn out of the individual by observation of an external event or stimuli) and approach motivation (the individual becomes compelled or energized to actualize one’s new idea or vision). Despite being commonly used when describing demonstration effects (e.g., Weed et al., 2015), ‘inspiration’ has yet to be measured or empirically identified as a key mechanisms underpinning the phenomenon.

Spectators (n = 306) attending 2015 Pan Am Games track cycling competitions were approached at random as they left the Velodrome and asked to complete a brief survey-questionnaire. Prior to completing the survey, respondents were screened to ensure they had never track cycled before and lived within 60 miles of the facility. Sport event consumption experiences (i.e., flow, fantasy, evaluation, personalities, aesthetics, and physical attractiveness) were assessed by Madrigal’s (2006) 18-item FANDIM scale. State inspiration was measured using Thrash and Elliot (2003)’s 4-item state inspiration (SI) scale. For example, respondents were presented with the statement: “I felt inspiration” and then were asked to rate “how deeply or strongly while watching the track cycling competition” on a 7-point Likert-type scale. Two items assessed intention to track cycle.
A principal axis factor (PAF) analysis in SPSS (v21) and a two-step structural equation model (SEM) in AMOS (v22) were conducted. Results of the PAF revealed that the three items from the FANDIM – personalities sub-scale failed to load significantly. Given that a large majority of participants had never witnessed a prior track cycling event (77%), the items from this dimension were removed. The adjusted PAF results showed a clean rotated pattern matrix, which accounted for 75.78% of the total variance. The matrix was used to build a confirmatory factor model (CFA) which fit the data well (X2/df = 1.72, CFI = .98, NFI = .96, RMSEA = .05). The model also showed good validity and reliability (Hair et al., 2010). The structural model was specified such that the five FANDIM dimensions predicted both state inspiration and intention to track cycle, and that state inspiration predicted behavioral intention. Participants’ age, sex, education, previous cycling experience/ability, track cycling knowledge, track cycling interest, and previous viewership of track cycling events were added as control variables. The model showed strong fit with data (X2/df = 1.44, CFI = .98, NFI = .95, RMSEA = .04). The model explained 50% of the variance in the state inspiration construct and 65% of the variance in the intention to track cycle construct. Examination of path estimates showed that all five FANDIM dimensions had positive direct effects on state inspiration (B = .11 to .26). Two FANDIM dimensions (fantasy, B = .35; evaluation, B = .17) had positive direct effects on intention, while one dimension (physical attractiveness, B = -.11) had a negative direct effect on intention. State Inspiration had a positive direct effect on intention (B = .29). State inspiration also partially mediated the influence of fantasy (p < .01) and evaluation (p < .05) on intention to track cycle. The flow FANDIM dimension had an indirect effect on intention through state inspiration (p < .01).

Our data suggest that autotelic spectator engagement focusing on consumer’s vicarious interaction with the performance, and state inspiration represent key cognitive and psychological mechanisms underpinning notions of a demonstration effect (Madrigal 2006; Thrash & Elliot, 2003). Spectators that fantasized being part of the action (i.e., fantasy FANDIM dimension) and made value judgments about the quality of athletes’ performances (i.e., evaluation FANDIM dimension) had stronger intention to track cycle. These relationships were explained, in part, by an induced state of inspiration. Thus, an event-evoked psychological state of inspiration may be a critical mechanism for explaining how viewing a sport event might translate into decisions to try the sport on display. Indeed, our results seem consistent with Lockwood and Kunda’s (1999) argument that “to be inspired by an outstanding other, one must be able to imagine an equally outstanding future self” (p. 214). We feel our study makes important theoretical contributions to understanding demonstration effects. Moreover, our results have practical implications for sport marketers. For example, efforts to create autotelic and engaging spectator experiences may be important for achieving sport participation legacy objectives.