Psychology and Aging

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BRIEF REPORT

ence can enhance certain access to information that is deemed relevant, even when the application of this knowledge may not always be accurate for a specific situation.

While age differences were not examined in the initial Gilovich et al. (1985) study, they found the hot hand effect even among people who had a high degree of interest in and experience with basketball (dedicated fans and collegiate and NBA players), implying that life experience or expertise may actually enhance belief in the hot hand. In addition, if the belief in the hot hand is a product of life experience, namely that things in the world often occur in streaks, then older adults may more likely to endorse such beliefs because they experienced more of these events (having simply lived longer than younger adults). Thus, both views—the enhanced use of heuristics and biases with age and the adaptive use of

Tversky & Kahneman, 1974) may then lead to a greater belief in the hot hand.

Older adults are also more likely to remember positive information (Mather & Carstensen, 2005) and are more sensitive to

the hot hand, relative to young and older adults (see Figure 1). A quadratic function fits the data slightly better than does a linear function, consistent with other work on decision making and cognitive function across the life span (see Agarwal, Driscoll, Gabaix, & Laibson, 2009; Castel et al., 2011). It is important to note that neither of the earlier-mentioned theoretical perspectives—the enhanced use of heuristics with age, nor the adaptive view regarding endorsing the hot hand, would necessarily predict an inverted U-shaped function, and this pattern suggests that middle-aged adults may rely on more analytical processing without strong biases based on life experience. Interestingly, however, it was the middle-age group that showed some marked differences between the belief in the hot hand and the option of passing the ball to someone who has made several shots in a row. The cognitive processes that lead to age-related differences in the belief about the hot hand may range from the use of statistical knowledge regarding independence of events to the reliance on more general heuristics that are more accessible for older adults. There may also be strong contextual aspects regarding belief in the hot hand, such that older adults may *not* be more likely than younger adults to believe that a coin flip that results in three heads in a row will then be more likely to yield a heads on the forth flip, but in the context of basketball, older adults rely on more general heuristics that may, or may not, be adaptive depending on the situation.

It would also be important to examine further how expertise (and not simply interest) may interact with age and influence beliefs in the hot hand and if these beliefs generalize to other domains or are influenced by the length of the streak in question (e.g., Carlson & Shu, 2008) or the past record of the player. It would also be of interest to see if people change their position based on having to provide justification for their responses (e.g., Kim et al., 2005) or when having to actually bet on the presence of absence of a streak, which may prove important in terms of learning more about the underlying mechanisms that give rise to beliefs in the hot hand, as well as for more practical reasons such as when making decisions that involve evaluating the independence of events. Thus, future research is needed to determine if the effects obtained in the present study are directly the result of age and the use of adaptive processing as opposed to thinking that involves base rates about basketball statistics (e.g., Hall, 6.5(Haw.3(et)3o&TJT*[(inTodove),248.7(2008),248.7(20ve)-n248.7(20at)-248.7(posri)-248.

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