From the Editor

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Superheroes to the Rescue!

Growing up, I had no appreciation whatsoever for comic book superheroes. From time to time, I would pick up and glance at one of the Marvel comic books my brothers left around the house, but I felt no joy in reading about characters in costumes flying about in capes wielding swords and other mysterious objects.

This lack of appreciation continued as I costumed my own children for Halloween, sometimes as their favorite superheroes. Even though I could see how empowered they seemed to be when pretending to be a powerful figure, I didn't understand the extent of the impact these comic book superhero experiences could have on children.

Within the past few months, that has changed. In interviews for research I currently conduct with children about their journeys with serious illness, the topic of superheroes surfaced midway through data collection. One child showed us a notebook he had filled with meticulously drawn superheroes, and he related the special powers of each one. When a second child brought up the subject early in his interview, I decided it was time to briefly explore the literature.

What I found amazed me.

The Batman Effect

Assuming the role of caped crusader or another superhero can have significant positive outcomes. For example, White and Carlson (2016) assessed the influence of graded level of self-distancing – psychological distancing from one's egocentric perspective – on executive function. Forty-eight three-year olds and 48 five-year olds were randomly assigned to one of four groups. Three groups featured a strategy for the child to use

**Figure 1.
Henry was obsessed with superheroes, especially Batman.**
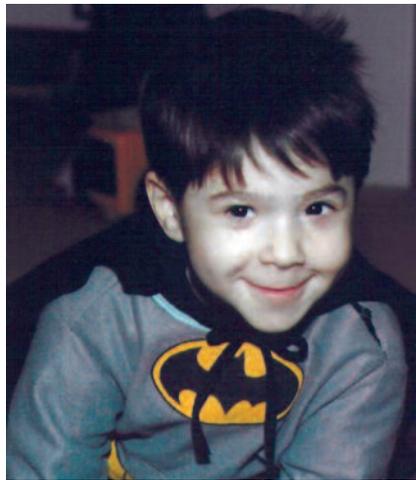
Source: Reprinted with permission from Laurie Strongin.

when completing a card-sorting task: self-immersed, third person, or exemplar. Control group participants had no distancing instruction. For distancing strategies, the researcher told the children, "Sometimes this game can be tricky!" and gave the following instructions, by group:

- **Self-immersed:** "Some kids like to focus on what they are thinking and how they feel when it gets hard. That's what I'd like you to do today. I want you to ask yourself, 'Where do I think this card should go?'"
- **Third person:** "Some kids like to talk to themselves by using their own name when it gets hard. That's what I'd like you to do today. I want you to ask yourself, 'Where does (child's name) think this card should go?'"
- **Exemplar:** "Some kids like to pretend that they're somebody else who would be really good at

this game when it gets hard. That's what I'd like you to do today." Children were offered their choice of one of the following characters – Batman, Dora the Explorer, Bob the Builder, or Rapunzel – and asked to put on costume props (e.g., Batman cape, Dora's backpack). "Now you are (character's name)! In this game, I want you to ask yourself, 'Where does (character's name) think this card should go?'" (adapted from White & Carson, 2016, p. 422).

Children's performance increased with self-distancing across age groups. White and Carson (2016) report that the strongest effects of self-distancing were seen when the child took the role of a fictional other (e.g., Batman). Five-year-olds in the exemplar condition performed a full level above controls. This improvement is equal to an average of 12 months' development (Carlson, 2012).

Another study examined the impact of self-distancing's on young children's perseverance (White et al., 2017). Children ($N=180$) four and six years of age were asked to complete a repetitive, boring task for 10 minutes while having the option to take breaks that featured an extremely attractive video game. Children were told the laptop work activity was a very important activity and that it would be helpful if they worked hard on it for as long as they could. As in the previous study, children were assigned to one of three self-distancing manipulations: self-immersion, third person, or exemplar. In earlier research, effects of self-immersion manipulation did not differ from non-treatment (Mischkowski, Kross, & Bushman, 2012; White & Carson, 2016); therefore, the self-immersed condition served as the control group. Participants were given the following instructions, by group:

- **Self-immersed:** Children were told to think about their own thoughts and feelings, and then to ask themselves the question, "Am I working hard?"
- **Third person:** Children were told to use their own name to ask themselves the question, "Is (child's name) working hard?"
- **Exemplar:** Children were told to think about someone else who is really good at working hard. The researchers offered four options: Batman, Bob the Builder, Rapunzel, and Dora the Explorer. Props (e.g., Batman cape) were provided to dress as the chosen character. Children were then told to ask themselves the question, "Is (character) working hard?" (White et al., 2017, p. 1566).

As might be expected, six-year-olds persevered longer than four-year-olds. Regardless, across both ages, children who impersonated an exemplar other spent the most time working, followed by those who took the third-person perspective, and lastly, the first-person perspective (White et al., 2017).

'Real' People

To clarify, superheroes discussed here are familiar comic book superheroes of yesterday, not the movie superheroes of today:

Today's superhero is too much like an action hero who participates in non-stop violence; he's aggressive, sarcastic, and rarely speaks to the virtue of doing good for humanity. When not in superhero costume, these men, like Ironman, exploit women, flaunt bling, and convey their manhood with high-powered guns (Lamb, 2010).

Although comic book superheroes of the past did fight criminals, Lamb (2010) reminds us that these heroes were the kind children could look up to and learn from because when not in their costumes, the characters were "real" people with real challenges and vulnerabilities.

The Pre-Cloak Stage

In exploring the "real" people behind comic superheroes, Fradkin, Weschenfelder, and Yunes (2016) ask us to consider what they call the "pre-cloak stage," the developmental stage prior to the fully costumed debut of the fully powered comic super hero. For example, Captain America was bullied and had a sickly childhood. Although the comic super hero has been used as a resilience building tool, the focus has primarily been for invincibility suggestion (e.g., telling children they have super powers). There seems to be no research on examining parallels between the real-life adversities experienced by vulnerable children and fictional adversities experienced by pre-cloak childhood comic super heroes (Fradkin et al., 2016). If there are parallels or overlaps in adversities experienced by these two groups, might there be implications for building children's resilience?

Implications for Comic Superheroes in the Healthcare Setting

Psychological distance helps children see choices more clearly, reflect on them more fully, and ultimately, exert greater control over their actions (Zelazo, 2004). It is apparent this quality could be significantly helpful for children dealing with illness, injury, and treatment in healthcare settings.

Would establishing self-distancing by having children simply don a cape and assume the role of a superhero make blood draws and other painful procedures easier for them? It might depend on the child's age, or more specifically, the relative maturity of the child's theory of mind abilities – the ability to attribute mental states (e.g., beliefs, intents, desires, pretending, knowledge) to oneself and to others, and to understand that others have beliefs different from one's own. Putting oneself in someone else's shoes is particularly difficult for children under the age of four years (White & Carlson, 2016).

Nurses and parents can take advantage of "The Batman Effect" by not only having popular superhero props available, but by also encouraging children to ask themselves, "What would (character) do?" Studies with adults have shown that using third-person self-talk about an upsetting event is associated with feeling better able to cope with a stressor and feeling less overwhelmed by the situation (Kross et al., 2014). When taking self-distancing from third person to a higher level – exemplar, could we see similar and perhaps greater positive outcomes for children?

Superheroes can have an important role for children in healthcare settings. Laurie Strongin, CEO and Founder of the Hope for Henry Foundation, describes the impact Batman had on her son, Henry (see Figure 1):

Henry was absolutely obsessed with superheroes. Batman was his favorite. Henry was two when he put on his first Batman costume. From that day on, or at least until the time we left for Minneapolis for his bone marrow transplant, he barely took it off. We brought our own Batman Band-aids to the hospital with us to use when Henry got needle sticks as to him, they made the procedures hurt less. Henry could relate to Batman. Like Batman, Henry's special powers were his strength and intelligence, which he developed through hard work and training. While Batman faced numerous adversaries, including the Joker, Ra's al Ghul, Riddler, Two-Face, and Poison Ivy, Henry faced only one, Fanconi anemia.

To honor Henry's life and share his magical way of making each day matter, his parents founded the Hope for Henry Foundation (see https://hopeforhenry.org). Recognizing the uplifting effect laughter and smiles have for thousands of children like Henry, the Hope for Henry Foundation strives to fill their recovery time with fun and entertainment. The organization hosts special events in hospitals throughout the year, including Superhero Celebrations.

The A.C. Camargo Cancer Center in Sao Paulo, Brazil, is using comic superheroes to try to bolster children's hope and fuel their will to fight cancer (Fradkin et al., 2016). The center uses special comics, animated videos, and superhero plastic covers for IV bags. The child's chemo drip is call "Superformula." The aim of this effort is to draw parallels between the comic superhero's battle against evil and the child's own battle against cancer. This approach applies invincibility suggestion: it inspires children to believe that, like the superhero, they, too, have powers on which they can draw to help them battle against their illness. It will be interesting to see the outcomes.

Who knows? With superheroes, anything is possible. ▟

Editorial

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