Doing a 180: Examining the Stability and Reversal of Behavioral Confirmation Effects
Jennifer L. Mezzapelle and Michael R. Andreychik
Fairfield University

ABSTRACT. For decades, social psychologists have examined the concept of behavioral expectancies, also known as self-fulfilling prophecies, and the long-lasting impact that they can have on individuals’ lives. The reversal of such expectancy effects has received much less attention. The present study focused on the questions of how stable behavioral tendencies elicited via self-fulfilling prophecies are, and the ease, or difficulty, with which expectancy-congruent behavioral tendencies can be reversed. To examine these questions, participants completed varying numbers of computerized reaction time tasks against computer opponents. Participants first played 1, 3, or 5 games against opponents who treated them with hostility, followed by a single game against an opponent who treated them with kindness, and finally played against an opponent who displayed neutral behavior toward them. We predicted that the more times participants played against a hostile opponent, the more difficult it would be for the participants to reduce expectancy-congruent hostile behavior through interaction with an opponent who treated them with kindness. Contrary to our prediction, participants who played the most games against hostile opponents before being exposed to a kind opponent were significantly kinder to the final neutral opponent than were other participants who received less hostile treatment (p = .002). These results suggest that it may be possible to counteract the negative effects of behavioral expectancies in some cases. Discussion centers on examining connections between this work and scholarship on empathy and altruism, as well as a consideration of future directions suggested by the results.

The concept of self-fulfilling prophecies was first described by Merton in 1948 when he said “...a self-fulfilling prophecy is, in the beginning, a false definition of the situation evoking a new behavior which makes the originally false conception come true” (p. 195). For example, a teacher may believe that a student is not intelligent, leading the teacher to spend less time helping the student succeed academically. Ultimately, this behavior may fulfill the teacher’s expectation of poor student performance. Self-fulfilling prophecies occur all around us. More specifically, they can influence a child’s success in school, dictate the kinds of relationships a person forms, and have...
the potential to lead to the perpetuation and generalization of stereotypes (Downey, Freitas, Michaelis, & Khouri, 1998; Snyder & Klein, 2005). Although it is now well-documented that self-fulfilling prophecies can have powerful effects on the behaviors and life outcomes of others, research into the specifics of their operation is still lacking. In particular, very little work has been done examining the conditions under which the effects of self-fulfilling prophecies can be reduced or even reversed.

In one of the more well-known demonstrations of self-fulfilling prophecies, researchers Rosenthal and Jacobson (1968) conducted a study in an elementary school in which students were administered an intelligence test at the end of the school year. At the start of the following school year, the students’ new teachers were given bogus results about the students’ performances on the intelligence test. The results listed the names of various students who were randomly labeled as “spurters,” which meant that they would make significant academic gains in the coming school year. It was assumed that the students left off the list would not make significant academic gains and would instead progress at a typical pace in the coming year. Subsequent tests conducted at the end of the school year showed that the spurters did, in fact, make academic gains.

Given that the children labeled as spurters were randomly selected, the authors concluded that it was the teachers’ expectations and treatment of the students (i.e., being more attentive to spurters, asking them more questions, and providing them with more helpful feedback) and not any superior natural abilities of the children that led to the academic gains (Rosenthal & Jacobson, 1968). Importantly, however, the teachers were not aware of the impact that their expectations and treatment of the students had on the students’ academic successes. In short, the teachers’ expectations were fulfilled, not because the students were spurters, but because the teachers expected them to be, thus illustrating the impact that self-fulfilling prophecies can have on daily life.

Of course, because Rosenthal and Jacobson (1968) did not follow the students in this study over time, their results cannot reveal whether teachers’ behavioral expectancies had any long-term impact on students. However, additional research has demonstrated that behavioral expectancies can “carry over,” or lead targets to behave in expectancy-consistent ways in contexts in which they did not receive expectancy-congruent treatment (Snyder & Klein, 2005; see also Chen & Bargh, 1997; Snyder, Tanke, & Berscheid, 1977), and in some cases even caused targets to change their self-concept (Kelley & Stahelski, 1970; Snyder & Klein, 2005). For example, treating people as though they are competitive in one situation may in some instances cause broader changes in their self-concept, leading them to see themselves as generally competitive. The expectations that people hold for other people in a single setting (or even a single encounter) can thus extend far beyond that specific setting, potentially transforming them into a certain type of person (e.g., a competitive person, an intelligent person) even if they were not such a person initially. This work also relates to ongoing debates in psychology regarding the nature of personality and its potential for change. Although a full discussion of this (complex) issue is beyond the scope of the present article, the work just reviewed does suggest that, at least in some cases, social interactions can shape or alter aspects of an individual’s personality (Allemand & Martin, 2016; Caspi, Roberts, & Shiner, 2005).

A particularly powerful example of the potentially long-lasting impacts that self-fulfilling prophecies can have on individuals was provided by Snyder and Swann (1978). In Snyder and Swann’s study, participants took part in a reaction time game, the object of which was to outperform their opponent in terms of both speed of reaction and strategic use of a “noise weapon.” The task was done in pairs, with one participant assigned to the role of perceiver and another participant assigned to the role of target. Participants were instructed that, during each trial, either they or their partners would have the opportunity to use a “noise weapon” of six varying intensities to distract the other person. Perceivers who were given the expectation that their partner was hostile prior to beginning the game behaved in a hostile manner toward their partners (i.e., using high levels of the noise weapon), thus leading their target partners to reciprocate and behaviorally confirm the perceivers’ expectations. When the targets who were treated as hostile by their first partner played the same game against a new partner who had no expectation of them, the targets continued to play in a hostile manner. These findings suggest that the initial partners’ expectancies became a relatively enduring part of the targets’ approach to the game.

Taken together, the work of researchers such as Rosenthal and Jacobson (1968) and Snyder
and Swann (1978) has provided some evidence regarding the operation of self-fulfilling prophecies and the powerful influence that behavioral expectancies can have on an individual’s life. However, much less work exists regarding the question of whether there are conditions under which behavioral expectancy effects can be reduced or even reversed. For example, what happens when the spurters discussed above leave their current classrooms? Will they continue to make significant academic gains in a new classroom, away from the expectations of their original teachers? Perhaps even more interestingly, what will happen to the spurters if they are later exposed to teachers who hold different expectancies for them? Will the behaviors elicited by the favorable expectations of their initial teachers persist, or will their behavior change to align with the (different) expectancies of their new teachers?

Smith, Jussim, and Eccles (1999) provided some evidence relevant to this issue in a long-term study of student performance. The researchers followed groups of students from their sixth and seventh grade years through their senior years in high school. Their results showed that teachers’ expectancies for students’ levels of success in mathematics measured in the first year of the study were associated with their performance in mathematics that year, similar to the results observed in Rosenthal and Jacobson (1968). In subsequent years, however, Smith et al. (1999) observed that, whereas the performance of some students could still be predicted by the expectations of their first-year teacher, the performance of other students was no longer related to their first-year teacher’s expectations. These results suggest that, although expectancies can have consistent effects on the lives of the targets, in some cases the effects of others’ expectancies can be undone, at least to some degree, by future interactions with others who do not hold such expectancies (or, perhaps, hold different expectancies).

Although Smith et al. (1999) suggested that the effects of self-fulfilling prophecies can be reversed, their correlational study did not show why or how these expectancy effects can be changed. Additionally, the results only provided information about the permanence and reversibility of behavioral expectancies in an educational setting. As mentioned, self-fulfilling prophecies can occur in a myriad of different contexts, not just education, which warrants an investigation of whether they can be reversed in these other contexts as well. To examine these issues, the current research focused on the questions of at what point expectancy effects become a permanent part of an individual’s behavior within a given setting and at what point expectancy effects can be reversed or eliminated.

We took an experimental approach which allowed us to carefully control the type of treatment participants received and thus examined what type of treatment might cause a previously established expectancy effect to be undone. In allowing us to better pinpoint the cause(s) of any reversals in expectancy effects, this experimental approach thus complements the work of Smith et al. (1999), which examined the long-term functioning of these processes in a natural and nonexperimental setting.

The current study was largely based on the previously described work of Snyder and Swann (1978). In our study, participants also played a game with a noise weapon; however, instead of real opponents, they played against preprogrammed computer opponents. To keep responses genuine, participants were made to believe that they were playing against other students in different laboratories. Participants were treated as though they were hostile by a varying number of ostensible opponents (e.g., one, three, or five opponents). Then, they played against a new opponent who served the purpose of trying to reverse the self-fulfilling prophecy by treating participants in a way that was incongruent with the original treatment they received (i.e., a partner who treated them very kindly after they have been treated very aggressively by other partner or partners). Last, participants played the game against a neutral opponent who used moderate levels of the noise weapon. This last game was meant to test whether the varying amounts of hostile treatment could be overridden by subsequent contrasting (kind) treatment. Presumably, the neutral opponent represented a “blank canvas” on which a participant’s preferred method of playing the game could be expressed. For example, if a participant acted in a hostile manner toward the neutral opponent, it would suggest that the hostile treatment received from the first opponent(s) could not be overridden by the kinder treatment that followed. On the other hand, if a participant behaved kindly toward the neutral opponent, it would suggest that the hostile treatment was reversed by the kind treatment. The hypothesis was that the more hostility-inducing treatment participants received, the less likely it would be that their hostile behavior could be undone by interacting with a kindness-inducing
opponent, and the higher the levels of the noise weapon they would use against their neutral opponent. On the other hand, the less hostility-inducing treatment individuals received, the more likely it would be that their hostile behavior could be undone by the kindness-inducing opponent, and the lower the levels of the noise weapon they would use against their neutral opponent.

**Method**

**Participants**

The sample consisted of 105 undergraduate students from Fairfield University who participated for course credit or extra credit in their General Psychology or Statistics courses. The sample was 79% women and 21% men with a mean age of 19 (SD = 1.13, range 18–22). A power analysis conducted using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) indicated that a sample size of N = 158 was necessary to provide 80% power (Cohen, 1992) to detect a medium-sized effect of the independent variable employing an α of .05. However, because we were limited by the relatively small size of our participant pool, our sample size was N = 93. As such, the study only achieved 55% power to detect an effect of our independent variable. This limitation will be further discussed in the Discussion section.

**Materials**

Participants completed a personality measure at the beginning of the study to determine their baseline levels of aggression and competitiveness. This personality measure was composed of four competitiveness-relevant items taken from the Big Five Inventory (e.g., “I see myself as someone who starts quarrels with others”; John, Donahue, & Kentle, 1991), along with two additional items that were written specifically for this study that focused on competitiveness and aggression (e.g., “I see myself as someone who is often competitive”). Sixteen additional items were also taken from the Big Five Inventory and used as filler items to distract participants from our true interest in competitiveness. The six items specifically relevant to competitiveness were averaged, after appropriate reverse scoring, to provide an overall measure of participants’ baseline levels of aggression (M = 2.12, SD = 0.58, α = .57). The complete personality assessment can be found in the Appendix.

Although we had initially planned to use baseline levels of aggression as a covariate in our analyses, given the relatively low reliability of the measure, we decided to omit the covariate from the analyses. The pattern of results reported below is the same regardless of whether baseline aggression is included as a covariate.

Following the personality assessment, participants played reaction time games against varying numbers of computerized opponents. Participants looked at a black fixation point on the computer screen and were told that their job was to press the spacebar as quickly as possible when a red dot appeared in place of the fixation point. The computer randomly selected the amount of time between the appearance of the fixation point and the appearance of the red dot.

Each game consisted of 24 trials of reacting to the red dot. The 24 trials were broken up into 8 blocks of 3 trials each. At the beginning of each block, the option to employ the noise weapon alternated. For example, if a participant selected the level of the noise weapon to use against an opponent at the start of the first block, then the computer would select the noise level in the next block. When it was the computer opponent’s turn to employ the noise weapon, the participant would hear the noise as the red dot appeared. This part of the study was based on the method of the experiment conducted by Snyder and Swann (1978), who used a similar methodology to successfully produce self-fulfilling prophecies in the laboratory. The noise weapon was offered in nine different intensities, ranging from 49 decibels to 81 decibels, with each level being 4 decibels higher than the level before it. An intensity of 1 was described as “inoffensive,” 5 was considered “distracting,” and 9 was described as “offensively irritating and annoying” (Snyder & Swann, 1978). Prior to the actual games, participants heard samples of the inoffensive, distracting, and aggressively irritating intensities. Although we used the same language to describe the noise intensities, we chose to use nine distinct noise levels, as opposed to the six levels used in Snyder and Swann’s experiment (1978). This allowed us to create more defined category labels for levels of noise selection. Within the games, noise weapon levels 1–3 were considered kind, levels 4–6 were neutral, and levels 7–9 were considered hostile. As such, each opponent that participants encountered was labeled “hostile.”

1 Although 105 participants took part in the study, the data of 12 participants were excluded from analyses, leaving us with the data of 93 participants.

2 Complete Inquisit scripts for the study can be accessed at osf.io/gk6f8.
“kind,” or “neutral,” and would employ noise levels from their corresponding level grouping. The computer’s selection of a specific noise level within the grouping (i.e., the selection of an 8 from the hostile grouping of 7–9) was programmed to be random and was not affected by participants’ noise level choices.

The levels of the noise weapon used by participants against their ostensible opponent(s) served as measures of the behavioral confirmation, or disconfirmation, of the expectation of hostility. We were particularly interested in the intensities used in the neutral game because these demonstrated whether the self-fulfilling prophecy was reversed or if it remained stable even after participants received treatment that contrasted the initial hostile treatment they received. In each type of game (i.e., the hostile game, the kind game, and the neutral game), the noise levels selected by participants were averaged to show how participants behaved, overall, in that game. An average of 1–3 was considered kind, an average of 4–6 was neutral, and an average of 7–9 was considered hostile.

Although participants played reaction time games against their computer opponents, we were not interested in participants’ reaction times. Similar to the method used by Snyder and Swann (1978), the emphasis on reaction speed in the directions given to participants was merely a cover for our interest in the noise levels used by participants. As such, we did not record or analyze participants’ reaction times.

Procedure
Prior to beginning the study, all procedures were approved by Fairfield University’s institutional review board (Protocol #0373). Upon arriving at the laboratory, all participants were informed verbally and in writing of what they would experience during the study and were assured that, although distracting, the noise weapon would not cause them harm. After reading and signing a consent form, participants continued on to the study, which was presented on computers using Inquisit software (Inquisit 4, 2015). Participants were told that they were participating in a study that examined how people behave, strategize, and perform in games against others. To control for baseline levels of aggression and competitiveness, participants first completed the personality measure described above.

Then, participants took part in the computerized reaction time games. Participants were told that they were playing against other students who were set up in different laboratories on the floor. In reality, they were playing against preprogrammed computer opponents. Participants were randomly assigned to one of three conditions. Participants in the first condition played only one game—recall that one game consists of 8 blocks of 3 trials each—against a hostility-inducing opponent. We refer to this condition as the minimal hostile treatment condition (n = 36). In the second condition, the moderate hostile treatment condition (n = 35), participants played three games against hostility-inducing opponents. Participants in the final condition, the maximum hostile treatment condition (n = 35), played five hostility-inducing games. In all three conditions, participants were told that they were playing against a different opponent in each different game. The computer opponent always employed the noise weapon in the first block of the first hostile game, and control of the noise weapon alternated between the participant and opponent in each subsequent block. In all remaining hostile games, either the computer or the participant was randomly selected to employ the noise weapon in the first block, and control of the noise weapon again alternated between participant and opponent in subsequent blocks.

Following these games with the hostile opponent(s), all participants next played one game against a kind opponent. The computer opponent always employed the noise weapon in the first block of this game. This game was meant to counteract the behavioral expectation of the previous games. Participants then played a final game against a neutral opponent. Participants always employed the noise weapon in the first block of this neutral game. This was done so that participants could “set the stage,” so to speak, for the game, and it eliminated the potential problem of participants simply mimicking the choices of their present partners.

Following the completion of the study, participants were debriefed verbally and in writing. During debriefing, some participants reported being suspicious of the cover story of the study. These suspicions were noted by the researchers and data from these participants were excluded in analyses.

Results
Of the 105 participants, 12 of them reported during debriefing that, while participating in the study, they were suspicious of the cover story and suspected that they were playing against computer
opponents rather than real people. These 12 participants were excluded from the data analyses, leaving 93 participants. Data were then analyzed using a Between-Subjects Analysis of Variance (ANOVA), which allowed us to see what effect amount of hostile treatment had on selection of noise weapon level.

The results focused on the levels of hostility that participants displayed in the neutral game (see Figure 1). We had predicted that participants in the maximum hostile treatment condition would exhibit the greatest hostility toward the neutral opponent, those in the moderate hostile treatment condition would exhibit a moderate level of hostility, and those in the minimum hostile treatment condition would exhibit the lowest level of hostility. Although amount of hostile treatment did have a significant impact on what level of the noise weapon participants chose to use against their neutral opponent, $F(2,93) = 5.22, p = .007, \eta^2_{\text{partial}} = .101$, as can be seen in Figure 1, the nature of this effect was different than what we had predicted.

In particular, follow-up pair-wise comparison tests (see Table 1) showed that participants in the minimum and moderate hostile treatment conditions did not differ significantly in the noise levels they chose to use against their neutral opponents ($p = .167$). Likewise, although the means in the minimum and maximum hostile treatment conditions indicated that participants in the minimum hostile treatment condition used slightly higher levels of the noise weapon against their neutral opponent than participants in the maximum condition did, the difference between the minimum and maximum hostile treatment conditions was not significant ($p = .083$). Finally, the analysis also showed that there was a significant difference between the moderate and maximum hostile treatment conditions, ($p = .002$). The data suggested that participants who were given maximum hostile treatment used significantly lower levels of the noise weapon against the neutral opponent than those in the moderate hostile treatment condition. In summary, the minimum hostile treatment condition did not differ from the moderate or maximum hostile treatment conditions, whereas the maximum hostile treatment condition resulted in significantly less hostility toward the neutral opponent than the moderate hostile treatment condition did.

### Discussion

We had hypothesized that the more hostile treatment participants received from others in a computerized reaction-time game, the harder and less likely it would be to eliminate or reverse the impact that hostile treatment had on the hostility of participants’ own responses toward a neutral opponent. However, the findings suggested that participants who received the maximum level of hostile treatment were the kindest toward the neutral opponent. These results do suggest that in an aggression or hostility-related situation, some expectancy effects can, in fact, be reversed, just as they can be in an educational setting (Smith et al., 1999). Although the results did not support our hypothesis, they provide the opportunity to delve deeper into the nature of self-fulfilling prophecies and examine factors that might have played a role in why we found the results that we did. In this discussion, we review the limitations of this study and offer a few possible explanations for these findings. These explanations, however, are simply starting hypotheses that would require more research to

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<th>TABLE 1</th>
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<tr>
<td><strong>Mean Differences of Noise Weapon Use Between Conditions</strong></td>
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<tr>
<td>Condition (I)</td>
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<td>Maximum</td>
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*Note.* ** significant at $p < .01$
A true discussion of our results requires first taking into consideration the limitations of our study. As previously mentioned, because we were limited in how large a sample we could test because of the relatively small size of the undergraduate participant pool from which our participants were drawn, a power analysis showed that our study only achieved 55% power to detect an effect of our independent variable. This limitation highlights the need to conduct this study again in the future with a larger sample, enabling us to obtain more accurate estimates of the effects of our independent variable. Another limitation was that participants’ ages and genders were only collected from the information each participant reported as a member of the participant pool, rather than being collected as part of the study’s data. This means that we were not able to provide gender and age compositions separately for each condition, nor could we analyze any possible effects that these individual-difference variables might have had on the results. However, because the majority of our sample were women, there might not have been enough men to make a gender comparison meaningful in any case. Still, any future version of this study should be sure to collect this information within the study so that the potential effects of these variables can be examined.

It is also worth noting that our measure of participants’ pre-existing levels of competitiveness was composed of a mix of items taken from existing personality instruments and items created specifically by us to relate directly to competitiveness. Of course, modifying existing instruments or creating new questions can affect the psychometric properties of those instruments, so future work should attempt to replicate these results using an existing psychometrically sound measure of dispositional aggression or competitiveness.

Beyond the limitations of our study, there are many possible factors that could have influenced the results. One such factor is empathy. Empathy is the ability to take on the emotions of another person as one’s own (Andreychik & Migliaccio, 2015). For example, empathetic people may find themselves feeling sad when a friend has lost a job. A large part of empathy involves perspective-taking (i.e., trying to imagine what it would feel like to be in the position of the other person). Myers, Laurent, and Hodges (2014) suggested that when faced with another person’s suffering, individuals who are instructed to imagine themselves in the position of the sufferer (imagine-self) are more likely to be empathetic and helpful than individuals who are instructed to instead imagine the feelings of the other person (imagine-other). We never gave any of these instructions to participants, but it is possible that, for participants in the maximum hostility condition who had just been repeatedly treated as though they were hostile, this kind of imagine-self perspective-taking occurred naturally when participants encountered the final neutral opponent. If participants in this condition felt uncomfortable or unpleasant, their recurrent experience of being the target of others’ hostility might have made them more likely to put themselves in the position of their opponent. If this is the case, participants might consider how badly they themselves felt when someone used high levels of the noise weapon against them, resulting in kinder and more empathetic treatment towards the neutral opponent in an attempt to prevent this opponent from experiencing the same discomfort.

Along the same lines, Lim and DeSteno (2016) have shown that individuals who have encountered adversity have higher levels of empathy, which may generate more compassion toward the plights of others. Although the levels of noise that participants heard cannot really be labeled “adversity,” the phenomenon might have operated on a smaller scale in this instance. Perhaps the repeated experience of being the target of hostile treatment led to elevated empathy and motivation to be more compassionate toward their opponent. Of course, these ideas about the effect of empathy on the results are simply hypotheses. A greater understanding of the relationship between empathy and self-fulfilling prophecies would warrant further research. One solution to this might be to replicate the study, this time including measures of empathy and perspective-taking.

Another possible explanation for this study’s findings lies in the concept of reciprocal altruism. Reciprocal altruism is based on the motivation for people to help those who they believe can help them in return in some way. Most existing research on reciprocal altruism focuses on it as a basis for friendships and familial relationships. This is mostly due to the fact that these kinds of close relationships provide ample opportunity for kindness to be repaid (Rotkirch, Lyons, David-Barrett, & Jokela, 2014). However, given the high probability of discomfort in this study, it is possible that reciprocal altruism could manifest itself in a brief interaction such as this one. Here, participants might have believed that, if they were hostile toward the neutral opponent, their...
opponent might reciprocate high levels of the noise weapon. As a result, participants might try to avoid the discomfort that would be caused by yet another game involving hostile levels of the noise weapon by being kind to their opponent.

If the observed pattern of results is the product of reciprocal altruism, only participants in the maximum hostile treatment condition took part in this altruistic behavior. This may be due to the role that rational judgment plays in reciprocal altruism. Korsgaard, Meglino, Lester, and Jeong (2010) have shown that one of the driving factors in reciprocal altruism is the use of rational judgment, which bases decisions on past experiences and expectations for the future. Participants in the maximum hostile treatment condition had an increased exposure to hostile treatment compared to the other conditions, possibly giving them a higher anticipation for future aggression and discomfort. This high anticipation, in turn, may serve as motivation for these participants to try to avoid such hostility by being kind to the final opponent in the hopes that the opponent would reciprocate this kind behavior.

It is also possible that our pattern of results may be specific to the particular characteristic on which we chose to focus. As previously mentioned, self-fulfilling prophecies occur within many contexts, such as education, relationships, and stereotype generalization (Downey et al., 1998; Snyder & Klein, 2005). However, despite the varied contexts in which self-fulfilling prophecies occur, most of the research that examines the lasting stability of self-fulfilling prophecies has been done within the context of education and has focused on the trait of intelligence, specifically mathematical intelligence (Smith et al., 1999). It is possible that these expectancies of intelligence operate differently than expectancies regarding hostility and aggression. Given that our hypothesis was partially based on the literature that used education and mathematical intelligence, this could explain why our results were contrary to the hypothesis and the existing literature. To see if this is the case, a study similar to the one presented here could be conducted with a focus on academic performance. Instead of using the expectation of hostility with a reaction time task, the new study could give the expectation of a particular facet of intelligence, or lack thereof, with some kind of problem-solving task or a test of mathematical ability. We would then be able to examine whether those results are more similar to the results of this study or the one conducted by Smith et al. (1999).

Furthermore, self-fulfilling prophecies that occur in an educational setting, like a classroom, may have specific characteristics that distinguish them from behavioral expectancies taking place in other contexts including a laboratory setting. For example, an expectancy in a classroom might be held and acted on repeatedly by a single person, namely, a teacher. In the present study, most participants encountered a various number of opponents who acted on an expectation on one single occasion. It is possible that having multiple interaction partners versus one repeated interaction partner could influence how strongly an expectation is internalized, which may in turn affect the self-fulfilling prophecy’s reversibility.

A better understanding of the influence of these differences would require further investigation. One option is to conduct a study such as the one suggested above in which intelligence or problem-solving expectancies are examined in a laboratory. Another is to find a real-world context in which aggression-relevant expectancies can be examined such as sports. A future study could focus on a coach’s expectancies for sports players’ aggression levels over a period of time before seeing if the initial coach’s expectancies could be undone by a subsequent coach’s contrary expectancies. This would mirror the repeated interaction with a single person exhibited by a teacher in a classroom. Another study could follow similar expectancies held by multiple referees or sporting officials about players’ levels of aggression. This would reflect the effect of expectancies imposed by multiple interactions analogous to those in our study. Looking at these two suggested studies side-by-side could offer new insight into the impact of number of interaction partners within the same context.

Additionally, it is important to consider possible differences in level of vulnerability between the sample that was used in our study and the samples used by studies presented in existing literature. There is evidence to suggest that the more vulnerable people are, particularly related to their self-concept, the more susceptible they are to the effects of self-fulfilling prophecies (Smith et al., 1999). Some potential factors that might make an individual predisposed and vulnerable to self-fulfilling prophecies are age, perceived status of the person(s) holding the expectancies, lack of self-efficacy, or being in a new or unfamiliar environment. Children may be more vulnerable to the effects of self-fulfilling prophecies because they typically do not have a firmly developed self-concept.
Self-fulfilling prophecies can operate is absolutely crucial to be able to effectively reduce the harmful effects that others’ negative expectations can have in the real world.

References


Snyder, M., & Klein, O. (2005). Construing and constructing others: On the reality and the generality of the behavioral confirmation scenario. Interaction Studies, 6, 53–67 https://doi.org/10.1075/is.6.1.05sny


APPENDIX

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please select the number below each statement to indicate the extent to which you agree or disagree with that statement.

<table>
<thead>
<tr>
<th>Disagree strongly</th>
<th>Disagree a little</th>
<th>Neither agree nor disagree</th>
<th>Agree a little</th>
<th>Agree strongly</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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1. Likes to cooperate with others’ (R)
2. Is often competitive
3. Has an assertive personality
4. Starts quarrels with others
5. Would do almost anything to avoid conflict” (R)
6. Is considerate and kind to almost everyone” (R)
7. Is talkative
8. Does a thorough job
9. Is depressed, blue
10. Is original, comes up with new ideas
11. Can be somewhat careless
12. Is curious about many different things
13. Is full of energy
14. Is a reliable worker
15. Is ingenious, a deep thinker
16. Tends to be disorganized
17. Tends to be lazy
18. Is inventive
19. Perseveres until the task is finished
20. Does things efficiently
21. Is easily distracted
22. Is sophisticated in art, music, or literature

Note: The 22 items in this personality assessment were arranged into a randomized order and then presented in the same randomized order to all participants. Items marked with a * were used to compute the competitiveness index. Items marked with a + were created by the researchers and did not come from the Big Five Inventory. Items marked with (R) were reverse-coded.
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