# To "Play That Funky Music" or Not: How Music Affects the Environmental Self-Regulation of High-Ability Academic Writers

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Successful writing, achieved by *self-regulated* writers, depends not only upon focus and content, but also the writing environment, including the physical and social setting, which varies greatly among writers. Just as musical tastes differ among individuals, there are strong preferences regarding the role of music in a writing setting. To better understand the *environmental self-regulation* of writers, I selected a group of twelve high-achieving writers with a range of musical interests, including nine professors and three undergraduate students across three academic fields. The results suggest that musical background impacts a writer's preferred setting, and academic writers should strongly consider this impact when establishing a successful writing environment.

"Turn down that radio! I don't know how you can even think, let alone write, with that stupid thing blaring," my mother yells for the tenth time. I know I am not the only one who enjoys the hits while completing homework, as hundreds of students around campus are always attached to earphones. An even greater majority, however, struggle with completing writing assignments or are not completely satisfied with the end result. Could musical habits be a main cause of that frustration? Would they matter as much as low motivation, time-crunched projects, poor attitude, and a lack of confidence, which all might also contribute to this concern of undergraduate students across majors?

In search of answers, I conducted a study examining the listening-while-writing habits of professors and Honors students whose successes in writing have shaped their academic careers. What types of music do they listen to while writing, if any, and why? Understanding their self-regulatory techniques and mirroring their efforts could put to rest the rising problem faced by college student writers. Could I definitely rule music in—or out—as an important part of the expert writing process and effectively end the age-old debate with my mother?

#### **Review of Literature**

Writing is a complex task demanding highly refined skills in problem solving, goal setting, and proper transcription and translation so that knowledge may be passed on effectively (de Milliano et. al. 304; Zimmerman and Risemberg 74). Writing is not just a task done with the mind—rather, it is an act completed by an entire being, demanding total awareness of a writer's physical and personal state, all resulting in a piece of text with its own unique properties (Zimmerman and Risemberg 74).

Because writing is such a highly developed skill, writers who are more experienced with the process tend to be much more competent than less experienced writers; experienced writers not only know more about the topics they choose to write about, they also have a deeper understanding of writing conventions (de Milliano et al. 304; Sommers 380). Furthermore, proficient writing depends upon high levels of self-regulation (Graham and Harris 3; de Milliano et al. 304; Zimmerman and Risemberg 76). Self-regulation of writing is defined by Barry Zimmerman and Rafael Risemberg as "self-initiated thoughts, feelings, and actions that writers use to attain various literary goals, including improving their writing skills as well as enhancing the quality of the text

they create." Older writers, who are in general more experienced than younger writers, are more likely to understand and to have developed self-regulatory practices (76). Poor writing environments (a physical or social setting that inhibits a particular writer's production) and distracting behavioral practices can have detrimental effects on writing activities and skill development. These in turn can diminish *self-efficacy*, defined by Patricia McCarthy, Scott Meier, and Regina Rinderer as the self-evaluation of one's own ability to write effectively, or self-perception of one's own writing (465). In their study assessing the writing ability and writing self-efficacy of first-year college students enrolled in beginning writing courses, a higher level of self-efficacy for writing was strongly associated with the skills possessed by the writers, which corresponded to better grades on writing assignments. According to Zimmerman and Risemberg, students with higher self-efficacy will push themselves through times of writing difficulties, instead of waiting for a strike of inspiration, to achieve their goals or standards. This sense of urgency and self-driven motivation is demonstrated by writers who depend on creating innovative and meaningful writings for their personal life or for their livelihood (80).

Zimmerman and Risemberg define three categories of self-regulation in writing: personal processes (including mindset and mood), behavioral processes, and environmental processes, including the physical and social setting. Experienced writers who have developed self-regulation take special care to create an environment that is socially and physically motivating and favorable to the writing process, creating an "environmental structure" customized for their own writing needs. Unfortunately, trial and error must be used to determine what will be most effective for each individual writer. Writers should be constantly monitoring their progress throughout the writing process and always be looking for ways to improve their strategies of success (76–77). Engaging in constant self-awareness (recognizing and then eliminating distractions) assures that a writer stays focused and productive.

Maxine Marcus conducted a study in environmental structuring using individuals from the third, eighth, and eleventh grades. The students were asked to write a brief essay in a room with a "distracting" radio and television set, and their behaviors before, during, and after writing were recorded. The quality of essays was generally higher for subjects who spent less time watching the television or who turned down the volume on the radio and the television. Marcus's results show that students who restructured their environment with fewer distractions were more successful writers; however, her observations and evaluations may have been based on idiosyncratic values influencing her choices of "distracting" programming.

While Marcus essentially treats music as a distraction, some other studies, and the reports of many writers, suggest otherwise. F. H. Rauscher famously claimed that when subjects listened to Mozart immediately prior to testing, the experience had a statistically significant impact on their spatial reasoning scores versus subjects who experienced silence or calming instructions. This increased aptitude for logical deductions resulting from the calming music was dubbed "the Mozart Effect." However, in spite of these claims, no long-lasting effects—usually no longer than twelve minutes—were observed; moreover, there was no relation to an increase in IQ. Eager to test the benefits of the Mozart Effect in the field of medicine, the University of Illinois Medical Center found significant improvement in the incidence of epileptic shock episodes per day in both comatose and noncomatose patients, which was on average reduced by 40 to 50% (Jenkins 170). Clearly, listening to music can affect the brain in positive ways and cannot be simply written off as a distraction while writing.

Many authors also report that music is important to their writing processes. K. M. Weiland is a strong advocate of listening to music before and during the writing process, for inspirational reasons. She points out that many of her character sketches and stories have grown out of a few simple song lyrics she heard on the radio while driving home. Ideas flow just as readily while she is

writing and listening to a selection of instrumental music, particularly from movies, as they often contain a powerful variation of sounds. Christopher Jackson shares similar views. Music elicits an emotional response that can change a writer's mood and therefore affect the tone or direction of the writing. Furthermore, music, especially through headphones, blocks out the many distractions tearing writers from their work, promising the focus needed to succeed. Larry Brooks also finds success in his writing endeavors while listening to movie soundtracks, advocating "the use of music to tap into a level of perception, appreciation and creative energy that seems otherwise inaccessible." He believes music can take writers to a whole new level of unexplored ideas. Writers seek to elicit a response in readers, and he suggests that writing while listening to and truly feeling the music is the only way to make this become a reality.

Struck by the diversity of opinions regarding the role of listening to music while writing, I developed a study to understand music's effect on purposeful writing in the academic setting, which relies heavily on research. By purposeful writing, I mean faculty members' writing that is to be published; for students, I mean writing that is important to their major field and will be evaluated. With such motivated writers as participants, I expected they would exhibit strong preferences regarding the role of music in their environment, but to what degree their preferences might vary was difficult to predict.

#### **Study Participants**

In order to become better acquainted with the role of music in purposeful writing, I conducted a series of IRB-approved interviews to explore the writing process and musical background of a small group of university faculty and students at a single institution. A land-grant public research institution with a student body of around 28,000, Utah State University is dominated by a Caucasian population. USU general-education requirements include two English writing courses (one or both of which may be waived by an appropriate ACT, AP Language, AP Literature, or IB English test score) as well as two upper-division courses (ranging from one to four credits each) that are classified as communication intensive (CI) and are generally fulfilled by a student's major. Students graduating with Honors are further required to submit a bachelor's thesis on an approved topic of their own choosing.

The twelve participants in this study include three professors from the Department of Biology (College of Science), three professors from the Department of English (College of Humanities and Social Science), three professors from the Department of History (College of Humanities and Social Science), and three students, one from each of the respective departments. I chose to interview professors in their fifties who have a great deal of writing experience, with multiple publications in print, as their extensive publishing suggests expertise with writing in their field. I used, in part, a convenience sample, selecting two English professors and two biology professors from whom I have received instruction. To fill out my complement of three professors from each department, I contacted professors listed in their department's online directories, based on their number of publications, until I had enough participants.

I also convenience-sampled highly capable friends of similar academic achievement in order to recruit the student participants, all of whom maintain GPAs of above 3.9. Blake is a sophomore in the Honors Program studying biology with an emphasis in neurobiology; Elliott is a junior studying English with an emphasis in literature; and Hayden is a senior in the Honors Program in classical studies. Although gender did not seem to play any role in the results of my study, I will note that four of the participants (33%) are female, and the other eight (67%) are male.

My decision to select participants from different departments across campus was to ensure that my results do not apply solely to one style of writing because the focus of writing in different majors varies greatly. Blake admitted to not writing a single academic paper throughout the year, Elliott writes one or two essays a week, and Hayden usually writes one or two essays in an average month.

## Methodology

I conducted an in-person interview with each of my participants and then followed up with an additional question by email. Depending upon the responses I had received on prior questions, I sometimes elected not to ask all twenty-two questions when some seemed inapplicable. All participants were asked questions 1–3 and 12 to provide background on their writing experience:

- 1. How often do you write academic papers (faculty version: in your area of specialty) that are considered meaningful and purposeful to your education/career?
- 2. Do you enjoy writing these papers or do you consider it merely a task? Why?
- 3. Do you usually write large portions of your paper at one time or do you usually take breaks? Why?
- 12. Do you often experience writer's block? If yes, how often? Is there a specific trigger (lack of ideas, distractions, etc.)? How do you usually overcome this?

Questions 4 and 13 were my fundamental research questions, providing the baseline for my conclusions, which I chose to ask at different points in the interview to confirm the participants' answer. Questions 5–11 were asked only if I received an affirmative answer to question 4.

- 4. Do you listen to music while writing these academic papers? Why or why not?
- 5. What is your preferred musical choice when writing these papers? Why?
- 6. Do you listen to any other genres of music? What and when?
- 7. Does your musical choice vary when engaging in purposeful writing, or is it always the same?
- 8. Does your musical choice change in different stages of writing (draft versus final)?
- 9. Does your musical preference while writing vary depending on your mood or the length of time you have allotted for writing?
- 10. In your opinion, do you believe music is influential in your writing process?
- 11. Do you ever feel inspired to write or come up with an idea that was missing from your paper after listening to music?
- 13. Would you consider music to be better at eliminating distractions or creating a distraction while you are writing? Why?

To understand the role of music in the lives of my participants and to determine whether music was a big part of their lives, I asked questions 14–21:

- 14. What is your most commonly used device for listening to music (radio, iPod, Pandora, etc.)? Is there a reason for this choice?
- 15. Do you have a special playlist? If yes, why have you selected these songs?
- 16. How often do you listen to music on a daily basis?
- 17. Would you consider music to be an important part of life or white noise for mundane tasks like chores, exercise, and driving? Why?
- 18. Do you listen to music before sleeping or while sleeping?

- 19. Do you play a musical instrument or sing currently or in the past? (Which?) Why or why not?
- 20. How many concerts or other musical performances do you attend on a yearly basis?
- 21. Do you feel emotional attachment to any particular musical genre? Why or why not?

Participants were encouraged to share their own thoughts in question 22, which yielded a large range of results and insights:

22. Is there anything else you would like to add about your writing process or your musical interests that was not addressed in the questions above?

### **Results and Analysis**

Although most of the answers to the interview questions are not quantifiable, I was able to draw meaningful conclusions regarding the role of music in these writers' academic writing that can help us think about music in academic writing more broadly. The participants in my sample ranged from those who "constantly listen to music" (Blake) to those who feel that "music cuts me off from daily experiences" (History Professor 3), providing me with insights into a variety of personalities.

## **Faculty Attitudes toward Writing**

All of the professors in my study responded that they write meaningful and purposeful work at least once a week if not daily, which suggests that they can be regarded as experienced writers. Eight of the professors disclosed that they enjoy or mostly enjoy the writing process, with the exception of Biology Professor 2: "I am not particularly fond of the writing aspect of my job, but it is a big part of it." Furthermore, only Biology Professor 3 reported writer's block as a problem while writing: "I experience writer's block if I do not set aside enough time for myself to write, so I set aside a large period of time every week to devote to writing." Essentially, Biology Professor 3 cannot be productive without this self-regulatory technique, in much the same way that History Professor 2 eliminates "distracting hallway voices" with the use of a fan as white noise, an adaptation to the usually preferred silence.

Question 4, referring to writing with or without music playing, provided me with three general trends of preference:

- Music is a distraction and silence is necessary for writing.
- Music can be used as "white noise" to block distractions such as voices.
- Music can be used to create a positive mood and a sense of calmness.

#### Writing without Music

Five professors (56%) write without music, three of whom (33%) demand absolute silence. Biology Professors 2 and 3 both explained that they cannot have music playing and will close their doors when they write so they can eliminate any distractions in the hallways, creating the silent environment they desire. Professor 2 reasons, "Listening to music while writing is too intense because I focus more on the words than the task at hand" and Professor 3 simply "can't concentrate." English Professor 1 simply does not listen to music while writing—attributing this, after some pondering, to the fact that "all of my music has lyrics and I think it would be too distracting." History Professors 2 and 3 do not listen to music while writing, Professor 2 insisting upon a silent writing place ("Music, as well as noise in the hall, is very distracting"), and Professor 3 "enjoy[ing] the quiet." With the exception of History Professor 3, who simply finds the stillness while writing

pleasant, music is considered a distraction because the melody and/or lyrics capture the attention of the professor, diminishing focus on the writing task.

#### Writing with Music

Four other faculty (44%) use music in some way as they write. English Professor 2 responded that "It doesn't matter" whether there was music while writing or not, as long as there were no lyrics. If there are distractions in the hallway or there is a television on at home, Professor 2 will turn on classical music or jazz to drown out these noises; however, if there are no distractions, "I can have music on or not." This lack of a definite attitude shows that English Professor 2 may have a broader range of tolerance that does not require such heavy restrictions on productive writing environments, in contrast to those professors described above who prefer a silent space, which reinforces the basis of individuality in self-regulation. "Most of the time" History Professor 1 listens to baroque music or chant while writing, "us[ing] music to a certain extent as white noise, but it has to be the right white noise . . . [because] music could easily turn into a distraction. . . . [However,] it is clear to me that there is a link [between writing and music] in creating a structured space in which to write." When the specific writing requires a lot of concentration, Professor 1 often chooses silence over music, showing an adaptation depending upon the writing circumstance, a strong factor in self-regulation. The environmental control these professors implement through music is a tool that can be used when a writer, self-regulating through constant awareness, corrects a distraction.

Two other professors (22%) who listen to music on occasion while writing share the belief that music provides positive feelings: "Music puts me in a more comfortable place while writing and makes me feel good, and so anything that can make me feel comfortable is helpful to the writing process" (English Professor 3). English Professor 3 noted that most of the writing process is completed at home where classical music is always playing. "I do like having [nonlyrical] music on in the background while writing. . . . [However,] in the office I am less likely to have music on unless there is a distraction in the hallway." English Professor 3 shares the belief of English Professor 2 that there must not be distractions while writing and nonlyrical music is effective in eliminating distractions, yet neither have trouble writing in silence because they do not actively seek out music before or during the writing process. In a similar way, Biology Professor 1 revealed, "If I am working on a section of a paper that I don't have to think very hard [about], for example, the Methods section, I am not very worried about distractions and will often listen to music, but not always." If Biology Professor 1 does choose to listen to music while writing, Professor 1 selects classical or instrumental jazz; "It has to be something without lyrics, otherwise I get too distracted." Biology Professor 1 reported, "Music is not influential [in the writing process] to a great degree, but it might make you feel better; [music] keeps you going and focused, alleviates some of the boredom. . . . Certain pieces affect me in a way that I notice." This "atmosphere of comfort" (English Professor 3) is in fact another method of self-regulation, as the writer has found a state of peace in which to write, which is evidence of the goal of environmental self-regulation. Such results imply that professors, as skilled writers, are effective environmental self-regulators, establishing their own unique environment that is conducive to producing writing and may be adapted according to their surroundings.

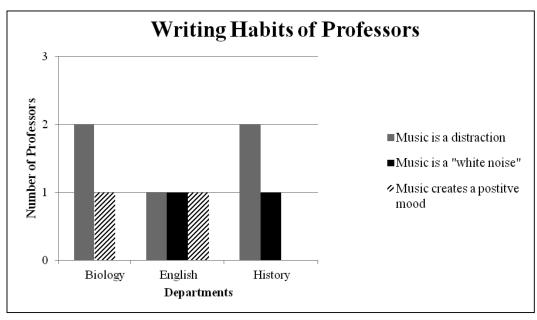


Figure 1

Figure 1 indicates the number of professors from each department who consider music to be a distraction while they write, the number who use music as a "white noise" to block out distractions while they write, and the number who use music to create emotions while they write.

## Changes in Listening-while-Writing Habits

A key component to self-regulation is the ability to recognize distractions in a writing environment and adapt (change) an environment if a writer is no longer able to be productive (Zimmerman and Risemberg 77). To further test whether professors' listening habits are indeed self-regulatory techniques, I looked for either awareness that the writing environment is productive or an understanding that the writing environment is nonproductive, with a change in the nonproductive habits over time. My follow-up interview question explored professors' writing habits while they were undergraduates and graduate students: "While you were an undergraduate and/or graduate student, did you listen to music while writing? If yes, what and why?" I compared the results to their present writing habits and found that eight of the nine (89%) had listened to music while writing as a college student, reflecting a change in several professors' use of music throughout their writing careers.

History Professor 2, one who currently prefers silence while writing, was the sole professor who had insisted on silence while writing as a student. Similarly, History Professor 1 used to listen to music all of the time in college because "it reduced distractions and improved [my] concentration," which still remains the case. In contrast, Biology Professor 3 recognized an unproductive system as an undergrad ("My paper would come back completely in red ink") and made the transition to silence. Biology Professors 1, 2, and 3 had listened to lyrical or nonlyrical music while writing in college. As students, all three of the English professors listened to music while writing. English Professor 1 had enjoyed nonlyrical music, while Professors 2 and 3 had listened to lyrical or nonlyrical music while writing. History Professor 1 had listened solely to nonlyrical music while writing in college. History Professor 3 had listened to nonlyrical or lyrical music while writing; "I wrote my dissertation listening to pop radio! It kept me going and awake . . . [because] pop is light-

hearted and fun." Listening to music while writing in college provided Professor 3 with "a sense of movement which I used to measure time without counting the minutes," providing the motivation to avoid distraction by other thoughts. History Professor 3, who now writes in silence, demonstrated knowledge on growth as a writer, admitting that the music was not especially beneficial to the writing process: "I enjoy the quiet [now] because I am past the learning curve." However, these professors were already familiar with self-regulatory techniques: "I wrote my thesis to Celtic music because it makes me feel creative and relaxed" (English Professor 1). These professors have shown their ability to self-regulate and progress as professional writers by adapting their writing environment throughout the years as deemed necessary to accomplish their writing goals at the university.

Figure 2 shows the distribution of professors' listening preferences as undergraduate and graduate students.

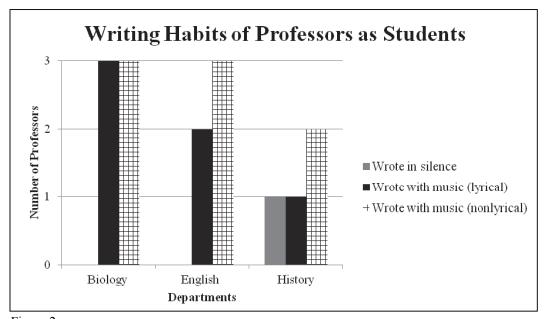


Figure 2

#### **Student Writers and Music**

And are today's students different? While my sample is too small for definitive conclusions, analysis of the interviews I conducted with the three student participants suggests not. Blake said, "Classical music [without lyrics] is preferred when writing papers . . . [because] it is stimulating." Elliott, in contrast, needs to be alone in the silence to write: "Music is an excuse to become distracted." Furthermore, "Writing if I am not 100% is not happening . . . [because] if I don't put every bit of effort into it, [the writing] doesn't turn out the way I want it to." With this in mind, Elliott will "get up and go find silence if I notice a distraction," an obvious example of regulating the writing environment. However, Hayden needs music to stay awake and focused, listening only to non-lyrical movie soundtracks while writing. "The purpose of such work is to help invigorate you and help the movie seem more interesting without distracting you from what is happening. . . . It helps me focus on the words I am using, reading, and wanting to convey," Hayden noted. This level of commitment and attention is another strong indicator of self-regulatory techniques.

These data, while limited, do suggest an answer to one other question: the extent to which selfregulation correlates with writing experience. Here it appears that all three student writers have developed comparable levels of self-regulation, even though Elliott has more college writing experience due to a greater volume of assignments. This indicates that self-regulation probably has more sources than just experience, since it seems also to correlate with motivation and overall academic achievement.

### Importance of Musical Background on Writing

To make certain that these results were obtained through a sample of participants with a variety of musical interests, I used questions 19, 20, and 21:

- 19. Do you play a musical instrument or sing currently or in the past? (Which?) Why or why not?
- 20. How many concerts or other musical performances do you attend on a yearly basis?
- 21. Do you feel emotional attachment to any particular musical genre? Why or why not?

All twelve participants have at least one year of musical or voice training; however, only seven (58%) claim to have enjoyed this experience or continue to produce music. No correlation existed between the enjoyment of musical production and academic department; however, five of the seven participants who claim to enjoy musical production are also members of the six total participants who write using music. Regarding question 21, all twelve participants claimed to have an emotional attachment to some genre of music: for example, "Enya makes me so happy because I used to listen to it with my best friend all of the time" (Hayden).

I used the answers to question 17, as well as influences from question 16, to determine how many of my participants considered music to be an important part of their life:

- 16. How often do you listen to music on a daily basis?
- 17. Would you consider music to be an important part of life or white noise for mundane tasks like chores, exercise, and driving? Why?

Biology Professors 1 ("I have twenty-one gigabytes of music on various devices") and 2, English Professors 2 ("Music is a part of my identity") and 3, and History Professors 2 and 3 ("Mozart got me through puberty!"), as well as Blake and Hayden—67% of total participants—confirmed that music was indeed an important part of their daily lives. Notice that all six of the total participants who currently use music while writing are of the eight claiming that music is an important part of their lives. The remaining two participants of these eight, Biology Professor 2 and History Professor 3, had listened to music while writing as students. This is an important indicator that musical background might influence writing environmental structure. Blake provides a personal illustration of this idea: "Having played music as a child, that part of me has influenced my writing. When I look at music, I can see form and melody, and I think there is a lot of that in my writing now. I can change form to make sentences sound differently." This is validation that style, and not necessarily just content, can be influenced by music. These results are summarized in Figure 3.

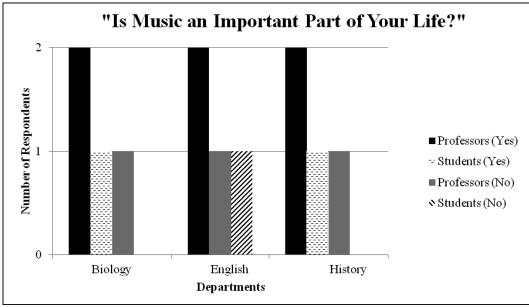


Figure 3

#### **Implications**

The results of this study seem to suggest that music affects the writing process of all or at least most writers, but that this influence (positive or negative) varies on an individual basis. That variance includes factors such as musical preference, musical background, and the level of focus on the melody and/or the lyrics. (But it does not seem to be the case, interestingly, that these factors vary by discipline.)

One constant across the participants was that choices about music while writing seem, importantly, to be a function of self-regulation. That is, music is an environmental element of the writing process that *requires* regulation. Therefore, self-regulation of writing process and environment is important for undergraduate writers to develop. Students' writing ability should be developed through learning how to express individuality; they should not become easily discouraged, as several methods (e.g., sober silence versus listening to day-brightening tunes) must be explored in order to discover their most effective writing processes.

My study suggests, further, that students could be assisted in this exploration of self-regulating writing processes by their faculty. Professors teaching introductory writing courses should share with their blossoming writers their knowledge, as well as their colleagues', regarding their self-regulation of their own writing processes. Such transparency about professors' own writing habits, processes, and experiences could help students not only develop into better writers but also alleviate the fear and anxiety commonly associated with college writing.

The association in my study of high-ability Honors students (and the professors they might become) and high self-regulation suggests that establishing self-regulatory techniques early in the academic career can help lead to a higher writing self-efficacy, better writers in the future, and professionals who can communicate effectively in all fields of study, not just those who graduate with a degree in English.

Many thanks to the participants, who agreed to set aside a portion of their valuable time for my interview questions. I am especially grateful to my mentor, Dr. Joyce Kinkead, who answered my countless questions

throughout my research and my writing and provided me with such prompt feedback. I would have easily been overwhelmed without her guidance, encouragement, and support throughout the entire process. Furthermore, I am so grateful for the plentiful advice and reinforcement provided by Dr. Doug Downs, my advising editor.

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