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Feature Article

Striving for Perfection or for Creativity
A Dancer’s Dilemma?

ABSTRACT The extent to which creativity and perfection can be considered compatible aims for dancers was investigated. Also investigated were how creativity and perfectionism are (1) nurtured versus inhibited, and (2) related to basic psychological needs (autonomy, competence, relatedness). Seventy-seven ballet students (12–19 years old) in Stockholm, Sweden completed standardized questionnaires, and eight were recruited for interviews. Additionally, five teachers were interviewed. It was found that flexible perfectionistic strivings (PS) were seen to support creativity, whereas rigid PS and perfectionistic concerns (PC) were seen as inhibiting. Creative work was proposed to reduce PC. Creativity appeared to be nurtured when basic needs were met via inspiration and imagery; this was experienced more in contemporary dance. Perfectionism appeared to be nurtured when basic needs were thwarted or unsupported, and when teachers were perfectionistic. This was experienced more in ballet. In conclusion, dance teachers who support basic needs likely support dancers’ creativity and aid in perfectionism management.

The traditional stereotype of a dancer, especially in classical ballet, is of a hard-working individual with little creative agency (e.g., Morris 2003; Lakes 2005; Pickard 2015). Today, however, dancers are frequently asked to improvise and choreograph in collaboration with choreographers (e.g., Butterworth 2004), and creativity is increasingly recognized as an important component of success. Creativity is also related to well-being, and is sometimes described as a form of optimal human functioning (Simonton 2000). Whether to promote success or well-being, therefore, it would appear that creativity is becoming ever more important. Although differences exist in how creativity is defined or conceptualized, the most established definition is that it comprises originality and usefulness (Runco and Jaeger 2012). In dance, creativity is further conceptualized as both a process and an outcome, and also as a skill that can be taught (Press and Warburton 2007).

Given the advantages of creativity, it is important to identify how it can be nurtured. In a study examining this notion directly, collaborative learning, flexible teaching methods, the provision of a safe and family-like environment, encouraging dancers’ own voice, and recognizing everyone as an individual were said to nurture creativity among young talented dancers (Watson, Nordin-Bates, and Chappell 2012). Many others have investigated the nurturing of dance creativity in a more indirect fashion (e.g., Lussier-Ley and Durand-Bush 2009; Mead 2009, 2012; Choi and Kim 2015). For instance, Euichang Choi and and Na-Ye Kim (2015) gave examples of how expressivity was stimulated by activating imagination and empowering students to
experiment. They also highlighted that encouraging students to take responsibility for their own learning would promote artistic development. David Mead (2009) outlined how personal discovery, listening to one’s body, reflection, and problem solving all formed part of what he termed the “creative ethos” at the esteemed Cloud Gate Dance School. Interestingly, this creative ethos existed within highly structured curricula: a kind of balance between freedom and structure. Two-way communication was also common between students and teachers as were explanations of why a particular movement was being practiced (Mead 2009, 2012).

In sport and educational psychology literature, such methods would likely be entitled autonomy supportive teaching, a practice with a solidly evidence-based theoretical foundation (e.g., Yu-Lan and Reeve 2011). For instance, it has been found that when physical education teachers are trained to support students’ autonomy, students develop more healthy motivational patterns as well as better engagement, skill development, and achievement (Cheon, Reeve, and Moon 2012). Autonomy (acting in line with one’s own goals and true self) is one of three basic psychological needs proposed in self-determination theory (SDT; Ryan and Deci 2000), the other two being competence (feeling effective in achieving outcomes) and relatedness (experiencing meaningful belonging; Ryan and Deci 2000). In dance, it has been shown that basic needs are more likely to be satisfied when the environment is perceived to be autonomy supportive and task-involving (e.g., emphasizing individual progress and collaboration; Quested and Duda 2010). Dancers with more satisfied basic needs also reported more positive affect.

SDT further proposes that positive outcomes of basic need satisfaction ensue because, when needs are fulfilled, individuals are more likely to display intrinsic motivation. That is, they are more likely to participate for reasons of inherent interest, enjoyment, and meaning (Ryan and Deci 2000). In a related line of research, Teresa Amabile (1982) created the intrinsic motivation principle of creativity, stating that for creativity to occur, people need to be intrinsically motivated. Accordingly, research in several domains has identified that autonomy is an important antecedent of creativity (e.g., Liu, Chen, and Yao 2011). To date, however, no studies have linked autonomy, or the other basic needs, to creativity in either dance or sport. At the same time, numerous critical voices have been raised regarding dance schools prioritizing technical perfection over creativity and joy (e.g., Morris 2003; Lakes 2005; Lussier-Ley and Durand-Bush 2009; Mead 2012; Choi and Kim 2015).

Although teachers are frequently concerned with developing creativity, some might also encourage perfectionism among their dancers, perhaps as part of trying to encourage technical excellence. A growing number of studies have shown that in classical ballet and contemporary dance, perfectionistic tendencies are not only common but are also likely to affect aspects of performance, motivation, and well-being in important ways (Nordin-Bates et al. 2011; Nordin-Bates and Abrahamsen 2016). Therefore, an enhanced understanding of perfectionism might be helpful to dancers and teachers alike, so that they can build a healthy striving for performance excellence.

From the wider literature, it is known that perfectionism originates at least partly in the family, but that other learning environments can also be impactful (Appleton, Hall, and Hill 2011). In particular, perfectionism appears to be nurtured when success without effort is valued, and leaders are perceived to be pressurizing and highly critical (e.g., Mallinson and Hill 2011). In dance, teachers are often important role models; they might also hold significant power over students and their progress. As such, it stands to reason that they can affect their dancers’ perfectionism. Indeed, a case study with a recently retired ballerina indicates a strong influence of both teachers and other aspects of the dance environment on her perfectionism (Nordin-Bates and Abrahamsen 2016). This study is the first to examine more directly how perfectionism is perceived to be nurtured, or inhibited, in dance.

Given that both perfection and creativity can be encouraged in dance, it becomes important to examine the extent to which they are compatible goals. To date, no such literature exists in dance, and findings from other domains are inconsistent. For instance, one study found creativity to be unrelated to perfectionism (Ahmetoglu et al. 2015), whereas another found that openness to experience and the need to be different (both aspects of creativity) were negatively related to perfectionism (Joy and Hicks 2004). A limitation of these studies, however, is that perfectionism was captured unidimensionally. To better understand the perfectionism–creativity relationship, multidimensionality is a key consideration; that is, perfectionism comprises two distinct components that, at times, are associated with quite different outcomes (for a review see Hill et al. 2019). This multidimensionality could be captured by considering perfectionism as comprising perfectionistic concerns (PC; worries and doubts regarding personal adequacy and mistakes) and perfectionistic strivings (PS; very high or unrealistic goals; wanting to be perfect; Stoeber and Otto 2006).

In a major review and reanalysis of existing evidence into perfectionism in sport, exercise, and dance, Hill et al. (2019) concluded that PC should be considered harmful, because of consistent associations with a range of problems such as anxiety and motivational difficulties. PC were also largely unrelated to performance. Research into PS, in contrast, has yielded inconclusive evidence (Hill et al. 2019). For instance, junior musicians with higher levels of PS have been found to spend more time practicing, achieve higher grades, and win more awards (Stoeber and Eismann 2007). In contrast, junior athletes with higher levels of PS have reported greater psychological need thwarting; that is, feeling that their basic needs were not just unmet, but actively undermined (Mallinson and Hill 2011). Clearly, the relationships between perfectionism and basic needs require further investigation.
Given the differences in correlates of PC and PS, it is logical that they could also be differentially associated with creativity. Indeed, a study with university students found that PC were largely unrelated to creativity, whereas PS related to creativity in a curvilinear fashion (i.e., in the shape of an inverted U; Wigert et al. 2012). That is, moderate levels of PS appeared to be associated with greater creativity, whereas very high levels of PS were associated with lower creativity. The latter might well apply also in dance, because whereas moderate levels of PS might lead to hard work (which could support creativity), very high levels of PS would likely stifle creativity because of the associated rigid, closed mindset (Watson, Nordin-Bates, and Chappell 2012; Nordin-Bates and Abrahamsen 2016). In line with a study of gifted children (Gallucci, Middleton, and Kline 2000), co-author Frank Abrahamsen and I (2016) further speculated that PC would thwart dancers’ creativity due to the inherent links to self-criticism and perceived personal inadequacy. Put differently, the preoccupation with the self (and especially one’s perceived shortcomings) that is typical of PC is likely incompatible with the task-focused intrinsic motivation necessary for creative work (Amabile and Pillemer 2012). This study is the first in-depth examination of these intriguing issues in dance.

In summary, the aims of this study were to examine the extent to which creativity and perfection can be considered compatible aims for dancers, and how creativity and perfection are nurtured and inhibited in dance contexts. Additionally, potential relationships among perfectionism, creativity, and basic needs were explored. Ultimately, it is hoped that a deeper understanding of these issues can help the dance community support its participants both as performers and as people.

**METHODS**

**The Project**

This article is part of a larger project, involving one quantitative and two qualitative periods of data collection. For the former, a larger sample of dancers completed questionnaires assessing the relevant constructs. These data provide a valuable backdrop and a crucial first step in identifying student interviewees. In-depth qualitative interviews were then held with a small subset of dancers who reported particularly high and low perfectionism scores. Finally, interviews were also held with some of their teachers.

A first publication from this project outlining the experiences of perfectionism among students with distinct perfectionism profiles is currently under review (Nordin-Bates and Kuylser forthcoming). To address the aims of this article, data from all three sources were employed. As such, qualitative results from teacher interviews and quantitative results regarding creativity and basic needs, as well as their relationships to perfectionism, are presented here. Given that the findings of the two articles originate in the same data collections, however, the Methods section here is deliberately kept in abbreviated form, and the interested reader is referred to the first publication.

**Participants**

First, 77 dance students (77 percent female, \( M = 15.52 \) years old) from a national ballet school were surveyed. All received on-site academic tuition alongside daily dance training, and they reported an average of 9.96 years of dance experience (SD = 3.29). Although the school educates students 10 to 19 years old, only those 12 to 19 years old were recruited so as to ascertain good understanding of the questionnaires. The school provides classes in both classical ballet and contemporary dance, but there is an emphasis on ballet for those aged 10 to 16. Students aged 16 to 19 take classes in both styles, but focus on one of them.

Dancers with the highest and lowest scores for PS and PC were identified as potential interview recruits to ensure a rich range of experiences regarding the study topics. Interviewees ranged from 12 to 19 years old. Additionally, five of their teachers (three women, two men), with a range of experience regarding style (ballet and contemporary dance) and levels taught (from youngest to oldest students) were recruited, all with previous or ongoing professional dance experience. In the Results and Discussion section, interviewees are described by pseudonym (see Table 1).

**Procedures**

The study was granted approval by the regional ethics committee and by school leaders. Informed consent was

<table>
<thead>
<tr>
<th>TABLE 1 Interviewee Pseudonyms, Sex, and Profiles</th>
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<tbody>
<tr>
<td>Pseudonym</td>
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<tr>
<td>-----------</td>
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<tr>
<td>Students</td>
</tr>
<tr>
<td>Petra</td>
</tr>
<tr>
<td>Maria</td>
</tr>
<tr>
<td>Marta</td>
</tr>
<tr>
<td>Maya</td>
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<td>Els</td>
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<td>Nick</td>
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<td>Noah</td>
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<td>Nora</td>
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<td>Teachers</td>
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<tr>
<td>Ben</td>
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<tr>
<td>Beth</td>
</tr>
<tr>
<td>Cora</td>
</tr>
<tr>
<td>Clara</td>
</tr>
<tr>
<td>Colby</td>
</tr>
</tbody>
</table>

*Note. PS = perfectionistic strivings (very high or unrealistic goals; wanting to be perfect); PC = perfectionistic concerns (worries and doubts regarding personal adequacy and mistakes; see Stoeber and Otto 2006).*
Phase 1: Baseline Data and Quantitative Identification of Student Interview Recruits

During school time and in classroom settings but without teachers present, dancers were administered standardized questionnaires to address the key constructs. All questionnaires were contextualized to dance, translated into the relevant language using a translate-backtranslate procedure, and pilot tested with a similar cohort. Anonymous ID codes were used to enable identification of potential interview recruits.

The ten-item Multidimensional Inventory of Perfectionism in Sport (MIPS; Stoeber et al. 2007) was used to capture PS and PC. Items are scored on a Likert scale ranging from 1 (never) to 6 (always), with both subscales demonstrating good internal reliability (PS $\alpha = .83$, PC $\alpha = .84$).

The 20-item Basic Needs Satisfaction in Sport Scale (BNSSS; Ng, Lonsdale, and Hodge 2011) was used to measure the extent to which the dancers experienced that their needs for autonomy, competence, and relatedness were met in their training environment. It is scored on a Likert scale ranging from 1 (not true at all) to 7 (very true). Internal reliabilities were good for all subscales ($\alpha = .86-.92$).

The 15-item Dancers Perceptions of the Creative Process Questionnaire (DPCPQ; forthcoming) was used to capture participants’ self-rated creativity in dance. It is scored on a Likert scale ranging from 1 (no, not at all) to 5 (yes, definitely) and yielded an internal reliability of $\alpha = .93$ for the total scale.

Phase 2: Qualitative Interviews with Dancers and Teachers

Interviews were grounded in a relativist, social constructionist approach (see Smith and McGannon 2018). As such, it is acknowledged that multiple realities and stories might coexist, all representing potentially valuable examples of possible experiences. To enable participants to speak freely and openly about their experiences, yet ascertain that interviews remained focused on the study aims, a semistructured approach was taken. Questions were therefore primarily open-ended, with clarification and elaboration probes used as needed (Patton 2002). The interview guide included questions about interviewee background; views on dance, perfectionism, and creativity; and potential antecedents of both perfectionism and creativity (e.g., “Some dancers perceive that they become more or less perfectionistic/creative by training in dance. What is true for you?”).

After they had been asked openly about their views and experiences, interviewees were shown short lists of what might be antecedents of perfectionism (extremely high demands, criticism, comparisons of dancers, set views on right and wrong, teachers or choreographers who are never pleased) and creativity (many ways to do things right, choice, every individual is valuable, openness to new ideas, encouragement, collaboration). These concepts were derived from relevant literature and were introduced to help ensure rich material was obtained. Interviewees were informed that these were some people’s views and that they were free to disagree with some, all, or none of it.

Pilot interviews were held with one dance researcher, two dancers, and two teachers. Potential student interview recruits were then contacted via e-mail, mobile phone, or both, and staff were recruited for interview via advertisements placed on school notice boards and subsequent snowball sampling. Interviews followed standard procedures for ensuring ethical conduct and good quality, including emphasizing interest in individual experiences, encouraging honesty and questions if anything was unclear, and the giving of information about confidentiality and the right to stop or not answer a question at any time. All interviews were conducted in person in a quiet space, with the exception of one, which was conducted over Skype because the participant had recently moved abroad. Interviews were digitally recorded and lasted 74 to 240 minutes ($M = 143.07$).

The author conducted two interviews with students and three with teachers, and a research assistant interviewed six students and two teachers. The author has a background that includes extensive experience of participation, research, and consulting in dance, and works as a lecturer in sport and dance psychology. The research assistant has some experience in dance participation and a degree in coaching science alongside extensive participation, coaching, judging, and journalism experience in an aesthetic sport. These relevant backgrounds helped us establish good rapport with participants; at the same time, we were not fully external or objective outsiders. Rather, we acknowledge that the methods, results, and discussion presented here are all affected by our backgrounds, in interaction with the backgrounds of our participants.

Analysis

The quantitative data were cleaned for errors and screened for normality, with no deviations found. Descriptive statistics and bivariate correlations were then calculated. Interviews were transcribed verbatim and analyzed in NVivo (QSR International 2014) using established methods (Côté et al. 1993; Patton 2002) and several trustworthiness criteria (Smith and McGannon 2018; Nordin-Bates and Kuytser forthcoming). The analysis process was largely inductive, so as to allow the data to speak for itself, although in the final stage of analyzed theoretical terms were deductively applied to some emerging themes. Specifically, it gradually became clear that the antecedents of perfectionism and creativity could largely be categorized into support or thwarting of basic needs (Ryan and Deci 2000; see Figure 1).

Results and Discussion

The overall sample reported relatively high scores for creativity and moderate to somewhat high scores for perfectionism, with PS being scored more highly than PC (see Table 2).
Dancers also reported moderately high to high scores for basic needs satisfaction, with relatedness being scored most highly and autonomy more moderately. Two key themes emerged from the interviews: interrelationships between and antecedents of creativity and perfectionism. Next, their subthemes are outlined and discussed in light of previous literature.

**TABLE 2** Descriptive Statistics and Bivariate Correlations

<table>
<thead>
<tr>
<th></th>
<th>M (SD)</th>
<th>Creativity</th>
<th>Strivings</th>
<th>Concerns</th>
<th>Autonomy</th>
<th>Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity</td>
<td>3.97 (.73)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Perfectionism</td>
<td></td>
<td>4.04 (1.09)</td>
<td>.17</td>
<td></td>
<td>.49**</td>
<td></td>
</tr>
<tr>
<td>Perfectionism Strivings</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perfectionism Concerns</td>
<td></td>
<td>3.00 (1.05)</td>
<td>−.01</td>
<td>.49**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic needs satisfaction</td>
<td></td>
<td>4.86 (1.44)</td>
<td>.52**</td>
<td>.12</td>
<td>−.30**</td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td></td>
<td>5.31 (1.31)</td>
<td>.68**</td>
<td>.16</td>
<td>−.16</td>
<td>.59**</td>
</tr>
<tr>
<td>Competence</td>
<td></td>
<td>6.03 (1.17)</td>
<td>.36**</td>
<td>.23</td>
<td>.02</td>
<td>.31*</td>
</tr>
<tr>
<td>Relatedness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.27*</td>
<td></td>
</tr>
</tbody>
</table>

Note. Perfectionism was scored on a scale from 1–6, needs satisfaction on a scale from 1–7 and creativity on a scale from 1–5. *p < .05. **p < .001.

**Interrelationships Between Perfectionism and Creativity**

No significant relationships emerged between the quantitative measures of creativity and perfectionism (see Table 2), yet several emerged in the interviews. This...
might go some way toward explaining why earlier studies into the perfectionism–creativity relationship have yielded contradictory findings (Gallucci, Middleton, and Kline 2000; Joy and Hicks 2004; Wigert et al. 2012; Ahmetoglu et al. 2015). It also demonstrates the power of qualitative studies to explore complex issues in more depth than is possible in traditional questionnaire-driven studies. Here, results are summarized under two themes reflecting perceptions that perfectionism and creativity could be complementary and contradictory.

Complementary

Several descriptions emerged of how creativity and perfectionism could be complementary, although almost exclusively in relation to PS. Noah gave his thoughts on how PS might enhance creativity: “If you work hard I guess you learn more things, and then it could support creativity because one has more to work with.” Maria emphasized that this relied on flexible PS:

> I feel that I can be creative in my dancing even though I am, like, quite perfectionistic. Because, well, it is about ... that you don’t think there is one way to be perfect, and that it could be even more perfect if I use my creativity.

Some also felt that creativity could support PS: “If you want to do something to perfection, then you might even have to be a bit creative in reaching it. That you have to make it up and create solutions” (Ben). In a rare example of how PC could lead to creativity, Clara said, “Some people seem to be able to be hysterically perfectionistic and be really creative, and there are those who have lots of anxiety and are super-creative.” This might reflect the link between affective disorders and arts participation demonstrated previously (Young, Winner, and Cordes 2013) but that is, to our knowledge, not yet investigated in dance specifically.

Contradictory

Numerous examples emerged of how perfectionism and creativity were contradictory, which reflects some previous studies in other domains (Gallucci, Middleton, and Kline 2000; Joy and Hicks 2004). One example, given by several interviewees, was that perfectionists struggle with the creative practice of improvisation. Nora described how a highly perfectionistic friend felt about improvisation: “She often felt kind of awkward, that she didn’t know what to do. That she didn’t see all the possibilities in front of her. ... She found it a difficult process. She was quite insecure in it.”

Other examples were more specific to PS or PC. The former was explained in terms of PS reducing spontaneity, or leading to rigidity: “You have to have a clear image of what is perfect, to know that you are striving for ... and then you might miss a lot of other possibilities” (Nora). When combined with the previously noted results regarding how flexible PS might support creativity, it seems that the overall PS–creativity relationship might be curvilinear, as found in a previous investigation with university students (Wigert et al. 2012) and suggested in dance (Nordin-Bates and Abrahamsen 2016). Further research into such curvilinear effects is warranted.

For PC, the inhibiting of creativity was explained as resulting from fear of failure or worries over not being good enough, from a fear of losing control, or a focus on proving oneself to others. For some, it meant not daring to experiment or even try:

> Ah, that’s happened several times. That I’ve thought I’m worse than I really am. Maybe that I can decide to include something in a choreography we will show ... but then I play it more safe because I don’t want to make a fool of myself and do something which I might be scared of in a show, as I feel I’m not good enough. (Elis)

Given the noted problems with PC, one of the most intriguing findings of this study is perhaps that creative work was seen as capable of reducing PC. Clara explained it this way:

> If you give examples of other ways to value aesthetics and via other artistic examples, other ways to relate to movement. To become more aware of the experience of movement than how it looks. I am quite convinced it affects a person’s perfectionism.

Others described the potential effects of creative work on perfectionism differently. Noah argued that creative tasks could support self-esteem: “If you are really unsure of your choices, it can be good to do some creative things to get your self-esteem back.” Cora explained how “creativity can help reduce worry. Especially when there are several ways to be right and when there is choice; that, too reduces worries and concerns.” Finally, Maya related the impact of creativity on perfectionism to a positive atmosphere: “When you do something creative it feels like there is a better atmosphere because it is different, and then you dare to do more. And because the atmosphere is so good, you don’t care if you make a mistake.” It would be highly worthwhile to examine whether a creative dance intervention would reduce perfectionism.

Antecedents of Creativity and Perfectionism

Two themes comprised this key theme, representing how dance style and interpersonal factors were thought to be antecedents of creativity and perfectionism.

Dance Style

In relation to style, interviewees spoke of perfectionism and creativity as almost polar opposites. In particular, numerous quotes relating to perfectionism being more prevalent in ballet than in contemporary dance emerged. Interviewees also agreed that creativity was more encouraged or present in some dance forms than others: “Yes. Not because it
should be that way, but of course it is” (Colby). For some, this reflected preference (“They are most creative in their main subject”; Beth) but, most often, it was referred to in terms of ballet being less conducive to creativity than contemporary dance.

Interestingly, many students, and some teachers, seemed to have a rather limited view of creativity, associating it primarily with choreography or improvisation and struggling to see its relevance for ballet. For instance, Petra remarked, “It’s really hard to understand this ‘creative in dance.’ I don’t know; creative for me is creating a whole new choreography.” Reports of style differences were typically related to a perception that ballet had more explicit rules, and was more dichotomous regarding right and wrong. Maya explained how this related to a potential increase in perfectionism: “In ballet there is like more molds or frames one has to be within, and then it’s kind of easier that it becomes one way that is perfect.” Maria had similar perceptions of ballet, and how it made her less creative:

Because it feels like ballet is a specific way and I can’t do it my way. It feels like I always must do it like the teacher shows, or like the others do it. … I adapt to what the teacher does, and that’s when I’m not as creative.

Others related differences in creativity to a different reliance on set choreography versus improvisation: “The preconditions for it are not greater in classes which are not built on a lot of exercises, or technique-training exercises” (Clara). It was recognized that the difference was not necessarily a “given,” and that things could be different: “I still think, find maybe creative ways of working. And continue, um, to work with your body and see things in new ways, and explore” (Nora). Indeed, interviewees agreed unanimously that dance should be creative, and some students directly requested more creativity in their training because they enjoyed and valued it when it did happen. Moreover, a large number of the answers to a warmup question concerning the “best thing about dance” (students) or the “best thing about dance teaching” (teachers) could be directly related to creativity, just as in previous studies (e.g., Lussier-Ley and Durand-Bush 2009).

Some respondents argued that potential differences between styles were related to dancer personalities, or that any style that emphasized conformity or a single right way of doing things could nurture perfectionism, both suggestions that merit further investigation. Nora related a perceived difference in creativity to ballet’s hierarchical tradition: “I often feel that ballet is taught, that the teacher is very; has high status, like. And the students aren’t on the same level. Whereas in contemporary dance it is more a communication.” Colby, too, spoke of ballet tradition and how it could affect perfectionism: “I think it is an image coming from dance history and the idea of the dancer representing something unreachable … that you have a supernatural talent or gift. And which aesthetic preferences have been valued as more beautiful.”

Finally, some teachers noted that the role of creativity in ballet was changing. Clara said, “There is very different room to negotiate and, like, the dancers’ role feels like it is undergoing quite large changes. … One isn’t this product or tool who is to execute someone else’s wishes.” This is encouraging, not least because it is in line with the increased requirement for dancers to cocreate with choreographers (e.g., Butterworth 2004).

Interpersonal Factors

A range of interpersonal factors were seen as nurturing creativity via the support of autonomy, competence, and relatedness (see Figure 1). These findings were directly mirrored in the quantitative part of our study, where moderate-to-strong and positive relationships were found to exist between creativity and all three basic needs (see Table 2). Overall, five subthemes made up the interpersonal factors thought to affect perfectionism and creativity: in addition to support or thwarting of autonomy, competence, and relatedness, perfectionistic teachers were thought to affect student perfectionism, and inspiration and imagery were considered to nurture creativity.

Autonomy support. Clear links were discernible between perceptions of autonomy support and enhanced creativity, similar to other domains (e.g., Liu, Chen, and Yao 2011). In particular, a wealth of quotes related to how various forms of freedom supported creativity. This included freedom to choose, encouragement to think for oneself, being given space to explore, and opportunities for shared decision making. Elis put it this way: “That I get to decide for myself how I will do it, what I will do … and whom I should do it with, or for whom I should do it, or if I should do it myself.” However, Colby emphasized, “When I give them freedom, it doesn’t mean that they can do whatever they like. But they get space to … explore.” This is in line with other research indicating that it is quite possible to impose constraints without reducing creativity (Koestner et al. 1984; Mead 2009, 2012).

Beyond giving freedom within boundaries, autonomy was also described as supported by teachers who valued each individual; introduced variety and flexibility; and who were open to suggestions, criticism, and shared decision making rather than acting as all-knowing experts. These findings mirror accounts in previous dance investigations (Chappell 2008; Lussier-Ley and Durand-Bush 2009; Mead 2009, 2012; Watson, Nordin-Bates, and Chappell 2012; Choi and Kim 2015); however, this study is the first to link such behaviors to SDT (Ryan and Deci 2000).

Clara gave the following illustration of how teachers who value each individual were seen to promote creativity via autonomy: “To separate the human worth from
the performance, I would say contributes to creating becoming less filled with demands.” Maya explained it slightly differently: “That each person kind of has something special, because not everyone is alike. ... And then you can put them together so it becomes a cool version.”

Creativity was further seen as enhanced when teachers introduced variety and flexibility, for instance by adjusting content to students’ energy levels, or introducing unexpected music or lighting. For younger students, the desire for variation was strong and linked to a boredom of doing the same barre exercises to the same music day after day. A final way in which autonomy support was said to enhance creativity was if teaching was “not about the teacher”; that is, when teachers were open to suggestions, criticism, and shared decision making rather than setting all exercises and making all decisions themselves. Ben explained such teacher-centeredness this way:

> Then it is more that you just say “yes, master” and then you are a “good student,” but you don’t exactly become very free-thinking as a student. And if you are not free-thinking as a student, you may struggle to be creative.

**Competence support and thwarting.** Several forms of support for competence emerged as affecting creativity, including having a process focus, promoting that there are many ways of doing, and providing various forms of support. In comparison to autonomy support, these findings are somewhat less reflective of previous research, and thus constitute an extension of the literature into how dance creativity could be nurtured.

A process focus included emphasizing experimentation, passion, and being in the moment, and was seen as helpful to creativity: “That it is about luck and not so much talent or that some have it and others don’t; I don’t believe much in that” (Clara). Cora had a specific way of helping students lose themselves in the moment, to reduce thoughts of incompetence and supporting creativity: “I always say: ‘Often I can add complexity with parameters in the head, in the mind, and that is because you should forget yourselves, in order to really be yourselves.’”

Also perceived as helpful were attitudes that there are many ways of doing: “that there isn’t any black or white but that there are many ‘rights.’ It gives much more creativity because then it doesn’t have to be a particular way” (Maya). Various forms of support were also considered helpful, including a generally supportive atmosphere, encouragement to be creative, and positive feedback on having been creative: “Encouragement, that can help you feel accepted and that you, like, get a certain confirmation that what you’re doing is good, that you are using your creativity” (Maria). Ben explained how the opposite, an uncomfortable studio atmosphere, had reduced his creativity as a student:

> Since I felt I didn’t want to do something bad, the reaction was partly to do something really pitiful. ... Then there were no comments; it was just so dumb that it couldn’t be analyzed ... it wasn’t that anyone said anything mean but just that you felt that the situation was unpleasant.

Perhaps as a result, Ben specifically told students that they “shouldn’t be afraid of trying.”

In stark contrast to the examples of how competence support could nurture creativity, and congruent with previous research in sport (Mallinson and Hill 2011), various forms of competence thwarting were considered to nurture perfectionism. This included interpersonal comparisons, criticism and punishment, extremely high expectations, very strict teachers, and dichotomous attitudes.

Interpersonal comparisons appeared to affect perfectionism via competence perceptions because comparing inspires either PS (typically to become the best) or PC (because it creates a sense of inadequacy). This could be induced by teachers explicitly comparing students or showing favoritism, or be done more spontaneously by dancers. Maria described it this way:

> You see roughly what level they are at, and where I myself am in [relation to] that level. And I strive to be one of the best, and then you can get sort of more of a perfectionist by thinking that you have to make everything as perfect as possible.

Respondents also gave examples of how criticism and punishment and very high expectations could lead to PS, PC, or both. Petra said:

> If you’ve had negative critique some might start to get more striving, that “Ah, I must get even better, I must work even harder.” While others take this negative critique with worry, concerns and then that you’re not good enough and that.

Although most of these accounts related to teachers—and especially teachers who seemed never to be satisfied—Elis spoke of high parental expectations: “My parents have thought ‘when you get this good’ ... it becomes a race against myself which can lead to it becoming tough, because I feel that ‘but I will never become that good.’” Importantly, some perceived that the ballet world was becoming less competence-thwarting: “It feels like it’s something that is changing, and something one no longer accepts, as student or dancer. ... One is aware that it gets this effect of uncertainty and that it is not something one wants to get” (Clara).

Some examples of very strict teachers were also mentioned as potentially affecting perfectionism. However, it was mostly discussed by teachers who deliberately did not fuss over details so as to help students let go of worries, self-consciousness, or pedantry. Speaking of a highly motivated
group, Ben explained how he didn’t want to hold them back by spending too long on correcting form:

Then they’ll stop or find somewhere else. … You’ll have to find a balance in it, that “Now you’ll get to do something difficult; you can try this but then we’ll have to reverse back so that you can sort out how it looks, as well.”

It would be interesting to further examine whether teachers can help reduce perfectionism by letting students push ahead with trying difficult movements, rather than emphasizing the importance of first getting the basics “just right.” A final subtheme relating to competence-thwarting concerned dichotomous attitudes, such as when “there is one ‘right’ and very many ‘wrong’” (Cora). Colby was particularly critical:

When you say to someone, “perfection is this, and this, and this,” you control that person. Because you’re putting an idea in that person’s head. Of something that might not be right, even. It’s your view of. Maybe there’s other views! And it’s no excuse to say “I’m going to make you the best you can be”; yeah, “I’m going to make you the sickest you can be, also.”

Relatedness support. The behavior of significant others could further affect perfectionism and creativity by affecting relatedness perceptions. Examples outlined how creativity might be nurtured via collaboration and how PC might be reduced through communication and understanding, building relationships, and positive group dynamics.

Students and teachers alike spoke of how collaboration enhanced creativity, or of how dance creativity was inherently collaborative, which resonates with previous research in dance (e.g., Chappell 2008; Watson, Nordin-Bates, and Chappell 2012; Łucznik 2015). Maria gave the following example:

For instance contact improvisation, when it is about having contact the whole time and kind of tune into one another, you learn a lot from what the other person thinks and her way of moving … then it’s about being open to and not just think in your own movement pattern; I think it is easier to be creative that way.

Similar to other dance studies, however (e.g., Watson, Nordin-Bates, and Chappell 2012), respondents cautioned that collaboration is not always easy and can be problematic if people do not get along or one person tries to dominate. Several accounts of how communication and understanding helped reduce PC emerged, including teachers, parents, or peers helping students handle their PC. Marta gave this example of what her parents had reminded her of when things did not go as she’d hoped:

“But you don’t have to be perfect; it doesn’t matter too much as long as you had fun”; … that’s been really good. You need those reminders because otherwise you get stuck in this kind of [perfectionistic] thinking.

Focusing on the classroom setting, Beth outlined her strategies for reducing PC by building relationships in this way: “There should be a safe feeling in class and they should feel that we are a team, so to speak; that I am there for them and help them. … You build a relationship, quite simply.” Finally, Maria described the importance of positive group dynamics as follows:

When I danced as a hobby, then the group wasn’t as tight … you don’t dare try new stuff because you’re scared it will go wrong. And that stuck when I started here, so then I’ve been encouraged to, like, dare try new things and that it’s okay if it isn’t always perfect.

Perfectionistic teachers. Several spoke of a “rubbing-off-effect” whereby perfectionistic teachers nurtured perfectionism in their students. This was described as highly problematic, with teaching becoming about the teacher rather than the students. Some even used strategies to avoid it happening, such as “I try to separate my ego from my knowledge” (Colby). Cora explained the problem as follows:

Nothing is good then; everything has to be … that single right way. And it means they work themselves to death … and when people come to watch, it is the teacher’s outward perfectionism which is the important thing, through what the students show. … And you see that this teacher isn’t happy; never satisfied. They are never satisfied with their work, and often project it on the students. Poor both, I’ve thought; poor both student and adult!

Examine this notion further would advance our understanding of perfectionism among teachers as well as of antecedents of perfectionism among performers. Indeed, there are as yet no studies into the potential impacts of perfectionistic leaders in dance.

Inspiration and imagery. Inspiration and imagery were spoken of as key ingredients in fueling a creative process, which is reflective of previous studies highlighting imagery as a vital creativity tool (e.g., Nordin and Cumming 2005; Choi and Kim 2015). As for inspiration, sources ranged from more obvious (e.g., watching performances) to abstract (e.g., fleeting visual impressions while traveling the underground) and could be unexpected (“strike from thin air”). Students were also inspired by friends, teachers’ performance stories, and seeing others be creative. Teachers encouraged inspiration, and thus creativity, by encouraging students to engage with various forms of art and discussing it. Maria gave this example of how her teacher exposed them to different contexts: “In one dance lesson we went out and got to improvise in nature. And then you get a lot of inspiration to be creative because there, like, is so much to get inspiration
Finally, Colby gave the following example of using imagery to boost creativity:

> Sometimes we talk: I ask them if they can place themselves in some landscape. Sometimes I suggest they choose someone who is very close, and dance for this person. So it is different ways to activate the creativity, and not just go through the motions. Since I, I know that the body needs more than just to lift the arm, lift the leg, turn ... and it doesn’t have to be anything big. I am talking about a speaking body.

**GENERAL DISCUSSION**

The aims of this study were to investigate the extent to which creativity and perfection can be considered compatible aims for dancers; how creativity and perfection can be nurtured and inhibited in dance; and potential relationships among perfectionism, creativity, and basic needs. The strengths of the study are the combination of methods (qualitative and quantitative) and participants (both teachers and students), and the clear links to literature on perfectionism (e.g., Hill et al. 2019) as well as SDT (Ryan and Deci 2000). Its limitations include the relatively small sample used to obtain the quantitative data, which also necessitated the use of only basic statistics.

Another limitation is that the interview guide did not contain specific questions on the support or thwarting of specific needs. This might explain why quantitative and qualitative results were not always congruent. For instance, the only correlation between perfectionism and need satisfaction was a negative one between PC and perceptions of autonomy. In interviews, however, it was explained how leadership behaviors seen to thwart competence could nurture perfectionism, and leadership behaviors seen to support relatedness could inhibit perfectionism. Future research is required to better understand the potential relationships between perfectionism and the supporting and thwarting of autonomy and relatedness. Despite these limitations, the fact that interview findings could, for the most part, be logically organized into the basic needs framework does speak strongly to its general applicability.

The rich qualitative findings elaborated on how perfectionism and creativity might affect each other. Yet although this seemed to occur in multiple ways, it appears clear that perfectionism is likely to undermine creativity, unless it is conceptualized solely as flexible strivings toward high goals. This is because very high PS likely lead to a rigidity that limits spontaneity and openness, which in turn are important for creativity. Additionally, PC are likely to limit creativity because of the inherent associated anxiety surrounding personal adequacy (“Am I good enough?”), mistakes (“What if I make a mistake?”), and social approval (“What will they think of me?”). Such characteristics make the intrinsic motivation and intense task focus required for creative work unlikely (Amabile 1982; Amabile and Pillemer 2012). Even so, the perfectionism—creativity link has not previously been investigated in dance—despite creativity being highly valued, and perfectionism being common (Nordin-Bates et al. 2011; Nordin-Bates and Abrahamsen 2016).

Both dance style and a range of interpersonal factors were reported to nurture and inhibit perfectionism and creativity. A key finding was that perfectionism was perceived to be nurtured more in ballet, whereas creativity was perceived to be nurtured more in contemporary dance. Many of these responses could be related to the way in which ballet was sometimes described as taught in less autonomy-supportive ways, with little room for individuality. Given that examples of autonomy-thwarting practices in ballet abound in the literature (e.g., Morris 2003; Lakes 2005; Choi and Kim 2015; Pickard 2015), promoting autonomy support in ballet appears to be of crucial importance.

This study is the first to link dance leadership behaviors that nurture creativity to the well-established SDT framework (Ryan and Deci 2000). An advantage of this theoretical connection is that it helps bring conceptual clarity to an otherwise fairly atheoretical area, where rich qualitative findings regarding creativity nurture have been described in many and varied ways (e.g., Lussier-Ley and Durand-Bush 2009; Mead 2009, 2012; Watson, Nordin-Bates, and Chappell 2012; Choi and Kim 2015). By integrating findings with established theory, it becomes easier to provide evidence-based recommendations. Specifically, it appears clear from the quantitative and qualitative evidence presented that teachers wanting to nurture creativity should support their students’ autonomy, competence, and relatedness. To do so, recommendations derived from a combination of the findings reported here and previous literature are offered next (for more detail and underlying principles, see, e.g., Koestner et al. 1984; Ryan and Deci 2000; Assor, Kaplan, and Roth 2002; Mallett 2005; Quested and Duda 2010).

To support autonomy, teachers can provide freedom and choice within logically explained boundaries (e.g., “please put your own personal signature on the arms in this sequence”) and encourage dancers to pursue their own goals. Teachers should not feel that they must have “all the answers,” but rather value dancers’ input, questions, and personal preferences. Autonomy-supportive teachers typically also explain the reasons for doing particular exercises (e.g., “These conditioning exercises strengthen your core, and therefore help with pirouettes”), and encourage students to critically engage with given material (see also Mead 2009).

To support dancers’ sense of competence, teachers would do well to encourage a process focus, where emphasis is on getting absorbed in tasks for the sake of enjoyment and self-improvement (see also Amabile and Pillemer 2012). Imagination would be a particularly helpful tool in this process. Perceived competence might be further enhanced by clearly stating that there can be many ways to do something right, and by providing informational and positive feedback (e.g., “well done for working through your feet so carefully”). Teachers can also try to set appropriate, individualized challenges. If
teaching a mixed group, this can be facilitated by providing options. As doing so involves dancers themselves choosing a suitable challenge, it will simultaneously support autonomy. Finally, competence is supported by clear structure (e.g., “If you do x, y, and z, it will bring you closer to your goal”).

Supporting relatedness can be achieved by creating a safe, respectful space where students feel free to explore, and neither success or failure is to be feared (e.g., “Falling might be a good sign that you are really going for it”). Treating dancers as people first and performers second will help them feel related to the teacher, and opportunities to work collaboratively in varied groups will help them feel related to each other (e.g., “Make sure you work with another partner this time, as you will learn different things that way”).

In conclusion, this study has contributed a combination of quantitative and qualitative evidence relating to creativity and perfectionism in dance, both arguably complex constructs of great relevance to dancers, as they relate to performance success and well-being alike. Importantly, the findings have been related to the supporting and undermining of basic psychological needs. In combination with the rich evidence base already available for the basic needs framework within SDT, it appears likely that if teachers provide support for the basic needs to nurture creativity, they will simultaneously help dancers manage their perfectionism as well as nurture healthy motivation, well-being, and optimal functioning.

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