Competition and Creativity

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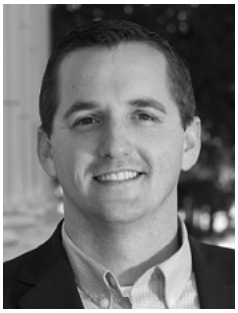

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Two years ago, I discussed in this column the risks and benefits of peer and non-peer comparisons among student singers.[1] At the time that article was published, academic voice teachers and students were in the annual throes of recital hearings and jury adjudications, and it seemed appropriate to focus on the comparison/evaluation of artistic performance inherent in those activities that do not necessarily pit one performer *against* another performer. The research for that article, however, exposed links in applicability to formalized competitions, which are another staple of voice instruction environment.

A considerable number of studies have been conducted and published investigating the impact of competition on the creative process, resulting in a shocking lack of consensus on whether competition promotes or inhibits creativity. On one hand, there is a corpus of literature indicating that individuals operating in a competitive environment exhibited more creativity.[2] On the other hand, different studies have provided evidence of the opposite: that competition produces less-creative results.[3]

To begin to make sense of these conflicting results, it is helpful first to understand how these experiments defined and measured "creativity." Most studies employed (at least portions of) the Torrance Tests of Creative Thinking (TTCT), which developed in the mid-1960s, has been re-normed multiple times, and is still widely used as a standard tool for assessing an individual's "capacity for creativity."[4] The TTCT tests individuals' performance in five dimensions, listed below with brief descriptions.

- Fluency: The number of relevant ideas; shows an ability to produce a number of figural images.
- Originality: The number of statistically infrequent ideas; shows an ability to produce uncommon or unique responses. The scoring procedure counts the most common responses as 0 and all other legitimate responses as 1. The originality lists have been prepared for each item on the basis of normative data, which are readily memorized by scorers.
- Elaboration: The number of added ideas; demonstrates the subject's ability to develop and elaborate on ideas.
- Abstractness of Titles: The degree beyond labeling; based on the idea that creativity requires an abstraction of thought. It measures the degree a title moves beyond concrete labeling of the pictures drawn.
- Resistance to Premature Closure: The degree of psychological openness; based on the belief that creative behavior requires a person to consider a variety of information when processing information and to keep an "open mind."[5]

An additional dimension, labeled *flexibility*, which indicated an individual's ability to generate ideas in multiple categories or using multiple approaches,

was included in earlier versions of the test, but has been dropped in the latest update. While the complete CCTC battery includes all five dimensions, most of the studies examining competition and creativity focus report only measures of fluency and flexibility.

Still, why do studies with similar designs and using the same metric produce contradictory results? A start to an answer to that question can be found in a related line of investigation that has produced more uniform results. A large body of evidence suggests that creativity is fostered when participants are intrinsically motivated, rather than responding to extrinsic motivators.[6] Determining when competition will foster or inhibit creativity, then, could depend on whether the competition is viewed as an extrinsic motivator or if it fuels the competitors' intrinsic motivation.

Christina Shalley and Greg Oldham suggest that the disparity can be explained by, in essence, how the competition is experienced by the study participants.[7] They base their prediction on an element of *Cognitive Evaluation Theory* that claims that all external conditions experienced in the course of an action have two essential aspects: a conditional aspect and an informational aspect.[8] Conditions can be structured, then, to differentially shift the balance of how these two aspects are experienced. When a competition condition is structured to shift the balance toward the informational aspect, then that competition should facilitate intrinsic motivation and a corresponding improvement in creativity.

Shalley and Oldham designed a clever experiment to test the differential relationship of the informational and controlling aspects of competition—the results of which could have direct application to how singing competitions can be structured to encourage creativity. In their study, subjects completed the TTCT in one of three conditions. One group ("no competition" group) was told that the investigators were interested only in the participants own results and not in how those results compared to anyone else. A second group ("competitors present" group) was told that the investigators were interested in how the participants performed in comparison to the other participants in the room. A third group ("competitors absent" group) was told that the investigators were interested in how the participants performed in relation to a group who had completed the same tasks the previous summer. Finally, the investigators also manipulated the participants' seating arrangements so that participants could either see or not see their "competitors."

In measures of creative fluency and flexibility, when participants were arranged to be able to see the work of other participants, the "competitors absent" group consistently outperformed both the "competitors present" and the "no competition" group. Taking this result alone would suggest that competition is beneficial for creativity when compared with no competition, but only if the competitor is not physically (or temporally) present at the time of participation. In relation to the informational/controlling aspect balance, these results make sense. Conditions where participants were in competition with absent others were expected to produce a high *informational aspect* and conditions where participants were physically and temporally near their competition was expected to produce a high *controlling aspect*.

Unexpectedly, however, the results reversed when the other participants were hidden from view. When participants could not see other participants, the "competitors present" group consistently outperformed the other two groups. While it was expected that hiding the other competitors from direct view would increase the informational aspect, and thereby improve creativity, it was not expected that hiding the other participants from view of the group competing with an absent competitor would lower creativity scores. After all, those participants were already hidden from their direct competition. One explanation for this unexpected result is that when the other participants were visible, but were not identified as direct competition, they acted as a sort of audience for whom the participants could perform, providing some information about the participants' performance and increasing the informational aspect of the competition.

What, then, can be learned from these investigations in relation to the structure of singing competitions? If (and this is an admittedly big "if") the intent of a singing competition is to encourage singers to produce creative performances with novel and flexible approaches to technique and artistry, then that competition should be structured to shift the experiential condition toward the informational aspect and away from the controlling aspect. According to Shalley and Oldham, it appears that that can be achieved by either 1) distancing competitors from one another, but still providing an audience of

non-competitors, or 2) by allowing the competitors to be near, but not visible during performance. It is worth noting that the "open audition" competition that is relatively common in current singing competitions, where fellow competitors make up the bulk of the audience, fits neither of these conditions and may be inhibiting creativity in the performances of the competitors.

NOTES

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When the warm sun, that brings
Seed-time and harvest, has returned again,
'Tis sweet to visit the still wood, where springs
The first flower of the plain.

.....

I love the season well,
When forest glades are teeming with bright forms,
Nor dark and many-folded clouds foretell
The coming-on of storms.

The softly-warbled song
Comes from the pleasant woods, and colored wings
Glance quick in the bright sun, that moves along
The forest openings.

When the bright sunset fills
The silver woods with light, the green slope throws
Its shadows in the hollows of the hills,
And wide the upland glows.

And, when the eve is born,
In the blue lake the sky, o'er-reaching far,
Is hollowed out, and the moon dips her horn,
And twinkles many a star.

.....

Sweet April! —many a thought
Is wedded unto thee, as hearts are wed;
Nor shall they fail, till, to its autumn brought,
Life's golden fruit is shed.

"An April Day,"
Henry Wadsworth Longfellow