Organizational Behavior and Human Decision Processes 124 (2014) 24–33

Contents lists available at ScienceDirect

Organizational Behavior and Human Decision Processes

journal homepage: www.elsevier.com/locate/obhdp

The vision heuristic: Judging music ensembles by sight alone ☆

Chia-Jung Tsay

University College London, Gower Street, London WC1E 6BT, UK

ARTICLE INFO

Article history:
Received 20 July 2011
Accepted 8 October 2013
Available online 17 December 2013
Accepted by Richard Moreland

Keywords:
Social perception
Snap judgment
Judgment and decision making
Visual cues
Nonverbal behavior
Performance
Expertise
Groups
Team effectiveness
Cooperation

ABSTRACT

Team effectiveness and group performance are often defined by standards set by domain experts. Professional musicians consistently report that sound output is the most important standard for evaluating the quality of group performance in the domain of music. However, across six studies, visual information dominated rapid judgments of group performance. Participants (1062 experts and novices) were able to select the actual winners of live ensemble competitions and distinguish top-ranked orchestras from non-ranked orchestras based on 6-s silent video recordings yet were unable to do so from sound recordings or recordings with both video and sound. These findings suggest that judgments of group performance in the domain of music are driven at least in part by visual cues about group dynamics and leadership.

© 2013 The Author. Published by Elsevier Inc. All rights reserved.

Introduction

Thirty-one classical musicians sit in silence on a stage, their instruments poised. The audience also sits expectantly, awaiting the conductor. Seconds later, the first notes of the symphony ring out – but the conductor has yet to appear. It seems far-fetched that a seemingly leader-less ensemble could begin playing at the same moment with such precision. Yet it is true: the world-renowned Orpheus Chamber Orchestra performs without a conductor (Lamb, 2001).

The success of such "unconducted" groups has often been attributed to a system of shared leadership (Hackman, 2002; Seifter & Economy, 2001; Traub, 1996). Such a system develops as team members influence each other and the team overall, harnessing their collective ability to create the conditions that foster team effectiveness (Hackman, 2005). At a more basic level, nonverbal and visual communication within unconducted groups facilitates coordination under dynamic conditions where creativity, spontaneity, and responsiveness (Thompson, 1967) are prized over more routine task parameters. Such in-process and unspoken mechanisms (Wittenbaum, Vaughan, & Stasser, 1998) can contribute to great performances by combining explicit coordination with more tacit coordination and mutual adjustment.

The astonishing phenomenon of the conductorless orchestra demonstrates vividly how subtle, visually based communication among group members can guide music ensembles to the creation of a coherent sound. Yet despite widespread recognition of coherent sound as the ultimate goal of top-performing music ensembles (Murnighan & Conlon, 1991), when it comes to the observation and evaluation of ensemble performance, visual information may dominate professional judgment. Recent research suggests that we overlook the degree to which visual cues can affect how we, as observers, judge the output of music ensembles: the sound of music (Tsay, 2013). For example, although both professional musicians and musical novices report that sound matters most to their judgment of music performance, they in fact rely primarily on visual cues when evaluating individual musicians (Tsay, 2013). In a set of experiments, Tsay found that both musical novices and experts identified the individual winners of live performance competitions through silent videos but were unable to do so through audio recordings or even recordings with both video and sound. This finding suggests that a striking visual dependence emerges even in a domain defined by auditory information.

In music competitions, a pianist's passion or a violinist's fluid and expansive gestures can sway a panel of judges. By contrast, we would expect the quality of an ensemble performance to be assessed based on much more than the idiosyncratic visual and affective information conveyed by individual performers. When multiple talented performers collaborate to make great music,

☆ This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

E-mail address: c.tsay@ucl.ac.uk

0749-5978/$ - see front matter © 2013 The Author. Published by Elsevier Inc. All rights reserved.
http://dx.doi.org/10.1016/j.obhdp.2013.10.003

Table 1
Summary of experiments.

Experiment	*N*	Stimulus type	Conditions	Versus at chance	Against other conditions
1	118	Professional group competition	V (video only of group), A (sound only of group), V/A (video plus sound of group)	V: 46.4%, $t(40) = 4.28$, $p < .001$ A: 25.8%, $t(33) = -2.71$, $p = .011$ V/A: 36.9%, $t(42) = 1.50$, p = n.s.	V vs. A: $t(73) = 4.90$, $p < .001$; Cohen's $d = 1.16$ V vs. V/A: $t(82) = 2.48$, $p = .015$ A vs. V/A: $t(75) = -3.05$, $p = .003$
2	130	Professional group competition	V (video only of group leader), A (sound only of group), V/A (video plus sound of group)	V: 43.8%, $t(50) = 4.90$, $p < .001$ A: 31.1%, $t(39) = -0.78$, p = n.s V/A: 28.9%, $t(40) = -1.80$, p = n.s.	V vs. A: $t(89) = 3.64$, $p < .001$ V vs. V/A: $t(90) = 4.59$, $p < .001$ A vs. V/A: $t(79) = 0.58$, p = n.s.
3	166	Professional group competition	V^1 (video only of group leader), V^2 (video only of group), V^3 (video only of non-leader)	V^1: 43.2%, $t(60) = 4.94$, $p < .001$ V^2: 47.8%, $t(59) = 5.22$, $p < .001$ V^3: 33.4%, $t(44) = 0.05$, p = n.s.	V^1 vs. V^2: $t(119) = -1.36$, p = n.s. V^1 vs. V^3: $t(104) = 3.11$, $p = .002$ V^2 vs. V^3: $t(103) = 3.74$, $p < .001$
4	283	Professional group competition	V^1 (video only of group leader), V^2 (video only of group), A (sound only of group), V/A (video plus sound of group)	V^1: 41.4%, $t(72) = 3.84$, $p < .001$ V^2: 55.3%, $t(52) = 9.60$, $p < .001$ A: 26.5%, $t(66) = -3.86$, $p < .001$ V/A: 36.8%, $t(70) = 1.70$, p = n.s.	V^1 vs. V^2: $t(124) = -4.44$, $p < .001$ V^1 vs. A: $t(138) = 5.38$, $p < .001$ V^2 vs. A: $t(118) = 10.10$, $p < .001$ V^1 vs. V/A: $t(142) = 1.56$, p = n.s. V^2 vs. V/A: $t(122) = 6.01$, $p < .001$ A vs. V/A: $t(136) = -3.80$, $p < .001$
5	172	Professional orchestras	V (video only of group), A (sound only of group), V/A (video plus sound of group)	V: 64.3%, $t(61) = 8.13$, $p < .001$ A: 53.0%, $t(55) = 1.30$, p = n.s. V/A: 60.6%, $t(53) = 5.10$, $p < .001$	V vs. A: $t(116) = 3.90$, $p < .001$; Cohen's $d = 0.72$ V vs. V/A: $t(114) = 1.37$, p = n.s. A vs. V/A: $t(108) = -2.41$, $p = .017$
6	193	Professional group competition	V^1 (video only of group leader), V^2 (video only of group), A (sound only of group), V/A (video plus sound of group)	V^1: 35.8%, $t(46) = 1.09$, p = n.s. V^2: 40.1%, $t(37) = 2.30$, $p = .027$ A: 32.4%, $t(53) = -0.48$, p = n.s. V/A: 33.7%, $t(52) = 0.18$, p = n.s.	V^2 vs. A: $t(90) = 2.26$, $p = .026$ V^2 vs. V/A: $t(89) = 1.78$, $p = .079$ All other comparisons, p = n.s.

group dynamics should have a strong impact on the overall process and performance.

When evaluating the performance of musical groups, both novices and professional musicians report that their judgments are based upon the overall *sound* the musicians produce. For example, in interviews of British string quartets, Murnighan and Conlon (1991) found that the collective task of chamber music ensembles is "to reach a high level of coordinated sound". The literature on team effectiveness (Hackman, 1987) would also support the notion that sound should be taken as the gold standard for evaluation; after all, professional ensemble musicians themselves deem the production of "transcendent, glorious *sound*" as their goal (Murnighan & Conlon, 1991, p. 167), suggesting that sound is most important to their evaluation of music ensembles.

This paper explores the degree to which visual information influences expert judgments of group performance. A set of six experiments considered the degree to which visual information allows quick estimates of the outcomes of international ensemble competitions and professional rankings of symphony orchestras. An assessment of the relative contribution of visual vs. auditory information in the domain of music allows for the most conservative test of the primacy of visual cues.

There are several ways in which this work extends research and theory, with important practical implications. First, building on recent research, the current studies serve as the first empirical investigations in support the notion of the *vision heuristic*, which describes the way in which people use visual information more than they are aware of, more than they rely on auditory information, and beyond what they would endorse or choose with greater reflection. Whereas the earlier work focused on perceptions of individual performance (Tsay, 2013), the present research focuses on judgments of work groups and teams, group processes, and team performance. Second, this research introduces the thin-slices phenomenon to perceptions and outcomes of group interactions. Third, this research explores ways in which the standards and values of professionals are at odds with how they actually evaluate group output. Fourth, in a continued investigation of professional standards for the judgment of team effectiveness, this research examines the degree to which the vision heuristic can transcend domain knowledge, experience, and expertise. Finally, this work offers an investigation of the visual cues underlying perceived status, leadership, and group dynamics, and the influence of these factors on professional judgment.

Thin-slices research

Key decision-makers are more likely to have informal and spontaneous interactions with others than the managers of earlier generations were (Mintzberg, 1975). In various arenas of assessment, we have become more dependent on rapid social judgment, or the impressions and evaluations formed on the basis of minimal verbal and nonverbal cues, which contribute to more enduring perceptions. These initial impressions may affect our assumptions about others, which can then fundamentally change our own behaviors and the attitudes and behaviors of our interaction partners (Word, Zanna, & Cooper, 1974) and ultimately affect more general individual and organizational outcomes.

"Thin slices" of nonverbal behavior have been shown to have a strong impact on social judgment in a wide range of areas, including education, medicine, and personality assessment (Ambady & Rosenthal, 1993). That body of work suggests that we evaluate others quickly and automatically, such that impressions made in a few seconds can be highly predictive of impressions made after much longer periods of time. Such impressions also reveal other important information, such as internal state and moods, personality traits, and social and interpersonal relationships (Ambady, Bernieri, & Richeson, 2000; Ambady, Conner, & Hallahan, 1999).

Making judgments on the basis of thin slices requires interpretation of nonverbal and visual cues, which become the basis of our interpretation of future interactions. Previous research shows significant correlations between evaluations based on thin slices and more long-term evaluations of interest to organizational life, such as job performance and employment interviews (Ambady et al., 2000). More recent research points to an association between facial characteristics and consequential decisions and outcomes,

Download English Version:

https://daneshyari.com/en/article/10439836

Download Persian Version:

https://daneshyari.com/article/10439836

Daneshyari.com