Taste versus the Market: An Extension of Research on the Consumption of Popular Culture

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Previous studies of cultural consumption have found a significant but weak relationship between expert judgment (EJ) and popular appeal (PA) and have suggested that this "little taste" phenomenon reflects a mediating role played by ordinary evaluation (OE) in diluting the association between EJ and PA. However, various weaknesses in this work have involved problems with sequential timing, nonindependence of measurements, and contamination by market(ing)-related influences. The present investigation of new data on motion pictures addresses these concerns to show that, when controlling for market success, consumers display aspects of "good taste" via indirect links from EJ to OE to PA.

For centuries, commentators and critics have insistently raised and heatedly debated the issue of whether ordinary consumers or members of the mass audience do or do not display "good taste" in their consumption of the arts, entertainment, or other cultural offerings (Bayley 1991; Brantlinger 1983; Gans 1974; Holbrook 1995, 1999; Ross 1989; Strinati 1995; Twitchell 1992; Zolberg 1990). One way to address this question pursues the concept of a cultural field (e.g., film, music, television, painting) in which certain individuals have acquired high levels of expertise by virtue of long training (e.g., critics, professionals, reviewers, curators) so that society regards their judgments as a standard for high or low excellence in that particular cultural field (Bourdieu 1983, 1984, 1986, 1993). If we accept this viewpoint as a working definition or operationalization of "good taste," it turns out that empirical studies have tended to find statistically significant but rather weak associations between expert judgment (as a criterion of excellence) and popular appeal (to ordinary consumers) or market success (with the mass audience). Specifically, such studies have usually reported correlations (r) or standardized beta coefficients (β) on the order of r or $\beta < .35$, in other words, typically accounting for an explained variance of less than 10%. This significant but weak role of expert judgment has appeared repeatedly when explaining the popular appeal or market success of the arts or of entertainment in general (Hirschman and Pieros 1985; Holbrook 2006; Luan and Sudhir 2005; Reddy, Swaminathan, and Motley 1998; Schindler, Holbrook, and Greenleaf 1989) and has recurred especially in the often-studied case of motion pictures in particular (Basuroy, Chatterjee, and Ravid 2003; Basuroy, Desai, and Talukdar 2006; Boatwright, Kamakura, and Basuroy 2005; Dellarocas, Awad, and Zhang 2004; Desai and Basuroy 2005; Elberse and Anand 2005; Eliashberg and Shugan 1997; Hennig-Thurau, Houston, and Walsh 2003; Holbrook 1999; Kamakura, Basuroy, and Boatwright 2006; Litman 1983; Litman and Ahn 1998; Prag and Casavant 1994; Ravid 1999; Ravid, Wald, and Basuroy 2005; Reinstein and Snyder 2005; Sawhney and Eliashberg 1996; Sochay 1994; Wallace, Seigerman, and Holbrook 1993; Zufryden 2000).

In this article, we shall refer to strong and significant associations between Expert Judgment (EJ) and Popular Appeal (PA) as showing "good taste" and to significant but weak relationships as showing "little taste." Thus designated, the often-found and stubbornly insistent phenomenon of "little taste"—that is, a significant but weak relationship between expert judgments of professional critics and popular appeal to ordinary consumers—poses the perplexing puzzle of why this frequently encountered "little taste" phenomenon occurs.

Two recent studies in the cultural fields of music and cinema have proposed and tested one possible explanation.

Specifically, earlier work had neglected a potential intervening variable that mediates the relationship between Expert Judgment (EJ) and Popular Appeal (PA), namely, Ordinary Evaluation (OE), in which nonexpert consumers provide judgments of excellence (rather than of liking, enjoyability, or commercial success). (For general discussions of mediated relationships, see Baron and Kenny [1986], Holmbeck [1997], Pedhazur [1982], and Shrout and Bolger [2002].)

In one study of responses to 200 musical performances of "My Funny Valentine" by a wide variety of different artists, the overall relationship between EJ (excellence as judged by professionally trained musicians) and PA (enjoyability as rated by nonexpert college students) showed the usual "little taste" phenomenon ($\beta_{PA,EJ} = .365$). But this relationship was mediated by positive links between EJ and OE (excellence as judged by a separate sample of nonexpert college students) ($\beta_{OE,EJ} = .548$) and between OE and PA ($\beta_{PA,OE,EJ} = .592$). Thus, the overall significant but weak relationship resulted from the multiplicative combination of two links, each of which showed aspects of "good taste" (Holbrook, Lacher, and LaTour 2006).

Similarly, in a second study of responses to 219 motion pictures from the year 2000, the "little taste" phenomenon appeared overall ($\beta_{PA,EJ} = .225$) in the relationship between EJ (evaluations by six film critics) and PA (the logarithmically transformed number of votes cast by visitors to the Internet Movie Database Web site). But this relationship was again mediated by aspects of "good taste" via positive links between EJ and OE (excellence as judged by IMDb voters) ($\beta_{OE,EJ} = .841$) and between OE and PA ($\beta_{PA,OE,EJ} = .370$). Thus, again, the overall significant but weak relationship reflected a multiplicative combination of two links showing aspects of "good taste" (Holbrook 2005).

Judging from these two studies of ordinary evaluation as a potential mediator, it would appear that the connections between expert judgment and ordinary evaluation and between ordinary evaluation and popular appeal both show aspects of "good taste" but that these aspects of "good taste" are dissipated by their multiplicative combination so as to explain the phenomenon of "little taste" that appears in the overall significant but weak relationship between expert judgment and popular appeal. However, this potentially important finding, in general, and its application to the case of motion pictures, in particular, raise some concerns that have not yet been addressed from the vantage point of ordinary evaluation as a possible mediator. These difficulties may be summarized as follows.

First, the time sequence of measuring the relevant variables has not necessarily reflected the theoretically appropriate order of events. For example, in the second study just summarized (Holbrook 2005), expert judgment was measured by the ratings of professional critics compiled after, rather than before, the measure of ordinary evaluation by nonexpert consumers. Further, the measures of ordinary evaluation and popular appeal were collected simultaneously. Hence, given these timing issues, one might argue

that expert judgment could reflect ordinary evaluation rather than the other way around or that ordinary evaluation could reflect popular appeal rather than vice versa.

Second, the various measures have not always been obtained independently, thereby sacrificing a major potential advantage of this approach (Holbrook et al. 2006). For example, the motion picture study measured ordinary evaluation via ratings obtained from the same nonexpert consumers whose logarithmically transformed number of votes provided the assessment of popular appeal (Holbrook 2005). This lack of independence raises the possibility that the association between OE and PA results from a built-in methodological artifact rather than from a true relationship.

Third, previous studies have neglected the possible biasing role played by various market- and/or marketing-related influences. For example, in studying motion pictures, it could happen that marketing efforts such as production budgets, advertising, or distribution strategy influence expert judgment, ordinary evaluation, or popular appeal. Further, some have argued that movie reviewers anticipate audience acceptance and thereby reflect, rather than influence, market success (Eliashberg and Shugan 1997). Also, people cannot evaluate a film until after they have seen it, from which it follows that theatrical box office receipts or video rentals might drive ordinary evaluation or popular appeal rather than the other way around. In these senses, market(ing)-related factors might tend to "contaminate" what would otherwise be "pure" measures of expert and nonexpert tastes.

Clearly, further research is needed to address the three problems just raised. Toward that end, the present article describes findings from two additional studies. The first reports extended analyses of new data on motion pictures from the year 2000. The second reports new analyses of fresh motion picture data from the year 2003. Both studies, separately and in combination, suggest that, when EJ, OE, and PA are measured sequentially, independently, and with proper controls for market success, such "purified" measures show that consumers display a level of "good taste" higher than that previously inferred from data "contaminated" by various aspects of the real world marketplace.

STUDY 1

Method

Sample. Study 1 extends the analysis of 219 motion pictures from the year 2000 via the collection and investigation of new and improved data. Specifically, for the present inquiry, which is based on fresh observations, the key relevant measures were as follows.

Expert Judgment. Expert Judgment (EJ) was measured by the average reviewer scores posted on the Web site of Rotten Tomatoes at http://www.rottentomatoes.com. This measure of EJ has the advantage of representing a large number of reviewers, ranging from 13 to 140 ($M = 79.39$), most of whose evaluations appear at the time of a film's release as it starts its initial theatrical run and therefore precede the

evaluative ratings later provided by ordinary nonexpert consumers after they have seen the film in the theater or on home video. As a partial check on its validity, EJ shows a strong correlation with the six-item summative index composed of standardized ratings from six books of reviews compiled by professional critics (PC) and reported elsewhere (Holbrook 2005): $r_{EJ,PC} = .893$ ($t(217) = 29.304$, $p < .001$).

Ordinary Evaluation. As provided on the IMDb Web site at http://www.imdb.com, Ordinary Evaluation (OE) was measured by the average rating of excellence given by ordinary nonexpert consumers on a 10-position scale from "awful" (1) to "excellent" (10) during the first couple of years after a film's release. The number of ratings during this initial period ranged from 71 to 60,492 ($M = 5,820.99$). This measure of OE shows a reassuring degree of stability between the initial period (used here) and a subsequent period (described in the next paragraph): $r = .952$ ($t(217) = 45.675$, $p < .001$). Also, note that a validation study by Dellarocas et al. (2004, 12) found a strongly supportive correlation of $r = .84$ between the IMDb ratings and ratings by a nationally representative sample of 1,970 respondents.

Popular Appeal. Popular Appeal (PA) was gauged by the number of people voting on the IMDb Web site during the subsequent couple of years following the first period just described. The number of ratings during this subsequent period ranged from 70 to 53,770 ($M = 4,653.51$). This measure involves the important assumption—justified elsewhere at length (Holbrook 2005)—that a greater/smaller number of votes means that more/fewer audience members tend to like, enjoy, or praise a film by recommending it to others. As before, and consistent with a generally accepted statistical rationale, we handled problems of skewness, curvilinearity, and heteroskedasticity by defining Popular Appeal (PA) as the logarithmically transformed number of votes (NV): $PA = \log_{10}(NV)$. This measure of PA also shows a reassuring degree of stability between the initial period (not used here) and the subsequent period (adopted for the present analysis): $r = .981$ ($t(217) = 75.509$, $p < .001$). IMDb assures its users that careful steps are taken to warrant that the rating system is "immune from abuse," such as would occur if there were multiple votes cast by the same individual. This should ensure that the same people did not vote during the first time period (when OE is measured) and then vote again during the second time period (when PA is measured). Further, as a partial validation, the PA measure used here shows a fairly strong convergence with the logarithm of the IMDb "MovieMeter" (MM) ranking based on the number of Web searches immediately following the release of a film's DVD or VHS video: $r_{PA,MM} = -.609$ ($t(217) = -11.298$, $p < .001$, negative because the rank has a lower value for a more frequently accessed movie). Further empirical support for NV as a measure of PA is provided by Dellarocas et al. (2004, 25).

Market Success. For purposes of the present extended analysis—again, correcting for problems of skewness, cur-

vilinearity, and heteroskedasticity—Market Success (MS) was measured by a three-item index based on the sum of standardized scores for logarithmic transformations of the number of Opening Screens (reported by http://www.imdb .com), the revenues from domestic Box Office (http://www .worldwideboxoffice.com), and the receipts from Video Rentals (http://www.imdb.com). Principal components analysis of these three market(ing)-related variables produced one factor with an eigenvalue greater than 1.0—namely, 2.610—and loadings of .899 (z_{LogOS}), .955 (z_{LogBO}), and .943 (z_{LogVR}), respectively. As gauged by coefficient alpha, the three-item Index of Market Success (MS) shows a highly satisfactory degree of reliability ($\alpha = .925$). Further tests were run to assess the desirability of adding the standardized logarithms of Estimated Budget (EB) and/or International Box Office (IBO) to the Index of Market Success. However, both principal components and reliability analyses indicated that these would detract from the internal consistency of the three-item index. Nonetheless, we note that, as would be expected, both measures are moderately related to Market Success: $r_{MS,EB} = .665$ ($t(217) = 13.113$, $p < .001$) and $r_{MS,IBO} = .519$ ($t(217) = 8.941$, $p < .001$), respectively.

Analyses

Analyses of the intervening role of Ordinary Evaluation (OE) in mediating the overall relationship between Expert Judgment (EJ) and Popular Appeal (PA) were conducted by means of OLS regressions according to the four generally accepted criteria for mediation (Baron and Kenny 1986; Holmbeck 1997; Preacher and Hayes 2004, 2005; Shrout and Bolger 2002). In order to make the appropriate comparisons with earlier studies and to control for the potential confounding or contaminating influences of Market Success (MS), these analyses required three phases, as follows.

Phase 1: Path from Expert Judgment to Popular Appeal. Before controlling for the effects of Market Success (MS)—in order to have meaningful comparisons with the results from earlier studies that did not attempt to control for market- and/or marketing-related aspects—the four criteria for a mediated relationship between Expert Judgment (EJ) and Popular Appeal (PA) via Ordinary Evaluation (OE) as an intervening variable are (1) $\beta_{PA,EJ} > 0$ (i.e., there must be an overall relationship to be mediated), (2) $\beta_{OE,EJ} > 0$ (i.e., the first link in the chain must be significant), (3) $\beta_{PA,OE,EJ} > 0$ (i.e., the second link in the chain must be significant), and (4) $\beta_{PA,EJ,OE} = 0$ (perfect or complete mediation) or $\beta_{PA,EJ,OE} < \beta_{PA,EJ}$ (partial mediation).

Phase 2: Path from Expert Judgment to Popular Appeal with Controls for Market Success. When controlling for the potential confounding of the other independent variables (EJ, OE) with market(ing)-related aspects (MS), the four criteria for mediation are modified as follows: (1) $\beta_{PA,EJ,MS} > 0$ (i.e., after controlling for MS, there must be an overall relationship to be mediated), (2) $\beta_{OE,EJ,MS} > 0$ (i.e., after controlling for MS, the first link in

the chain must be significant), (3) $\beta_{PA,OE,EJ,MS} > 0$ (i.e., after controlling for MS, the second link in the chain must be significant), and (4) $\beta_{PA,EJ,OE,MS} = 0$ (complete mediation) or $\beta_{PA,EJ,OE,MS} < \beta_{PA,EJ,MS}$ (partial mediation).

Phase 3: Path from Residual Expert Judgment to Residual Popular Appeal after Partialing Out Market Success. Phase 2, as just described, controls for confounding in the interrelationships of EJ and OE with MS. However, we believe that—in a procedure analogous to partial correlation (Green 1978; Nunnally 1978)—it also makes sense to remove the potential contaminating influences of MS from the dependent variable PA. Toward that end, we regress EJ, OE, and PA on MS to derive residual scores, that is, actual minus predicted values for REJ, ROE, and RPA after the effects of MS have been partialed out to create "purified" measures by removing the distorting influence of "contamination" by the marketplace. Notice here that the simple correlation between, say, RPA and REJ ($r_{RPA,REJ}$) is identically equivalent to the partial correlation between PA and EJ while controlling for MS ($r_{PA,EJ,MS}$; Green 1978, 58; Nunnally 1978, 168). Accordingly, phase 3 adopts the following four criteria for a mediated relationship between REJ and RPA via ROE as an intervening variable, where the potential confounding or contaminating influences of MS on EJ, OE, and PA are now controlled by partialing MS out of the residual measures: (1) $\beta_{RPA,REJ} > 0$ (i.e., after partialing out MS from all other variables, there must be an overall relationship to be mediated), (2) $\beta_{ROE,REJ} > 0$ (i.e., after partialing out MS from all other variables, the first link in the chain must be significant), (3) $\beta_{RPA,ROE,REJ} > 0$ (i.e., after partialing out MS from all other variables, the second link in the chain must be significant), and (4) $\beta_{RPA,REJ,ROE} = 0$ (complete mediation) or $\beta_{RPA,REJ,ROE} < \beta_{RPA,REJ}$ (partial mediation).

Testing the Significance of the Indirect Effects. In each of the three phases just described, the indirect effect of EJ on PA via OE as an intervening variable is estimated by multiplying together the relevant links: phase 1, $\beta_{OE,EJ} \times \beta_{PA,OE,EJ}$; phase 2, $\beta_{OE,EJ,MS} \times \beta_{PA,OE,EJ,MS}$; phase 3, $\beta_{ROE,REJ} \times \beta_{RPA,ROE,REJ}$. In each case, the significance of the multiplicative mediation effect is assessed by means of two tests. First, we apply the parametric Aroian-based Sobel test (Baron and Kenny 1986; Preacher and Hayes 2004, 2005; Shrout and Bolger 2002) via the use of an interactive calculation tool provided by Preacher and Leonardelli (2001). However, this Sobel test has the disadvantage of making the problematic assumption that the multiplicative indirect effects follow the normal distribution. To avoid this untenable assumption, second, we employ the nonparametric bootstrapping approach to derive confidence intervals (Preacher and Hayes 2004, 2005; Shrout and Bolger 2002) using the bias-corrected and accelerated estimates obtained from the SPSS-macro syntax developed by Preacher and Hayes (2005) with 5,000 resamples (as recommended by these authors).

Results

Simple Correlations. The simple correlations among our key variables in study 1 are tabulated below (probability levels are in parentheses).

	OE	PA	MS
EJ	.917	.250	−.292
	(.001)	(.001)	(.001)
OE		.310	−.283
		(.001)	(.001)
PA			.603
			(.001)

It is clear that a high degree of association appears between EJ and OE ($r_{OE,EJ} = .917$). Under different circumstances, this high correlation might lead to concerns about discriminant validity. Although we cannot rely on a conventional multitrait-multimethod matrix to establish discriminant validity, we do know that EJ and OE are measured on completely different groups of people (expert critics vs. nonexpert consumers) using completely different sorts of assessment procedures (review-based star systems vs. multiposition rating scales). This consideration suggests that the high $r_{OE,EJ}$ is not attributable to a source-bias or common-methods artifact.

Phase 1: Path from Expert Judgment to Popular Appeal. Using the new and improved measures in conjunction with the four criteria for mediation, as in earlier research and as shown in panel A of figure 1, we find (1) the familiar phenomenon of "little taste" in a significant but weak overall relationship (dotted line) between EJ and PA ($\beta_{PA,EJ} = .250$, $t(217) = 3.804$, $p < .001$), indicating an explained variance of only $r^2 = .0625$. However, also as before, aspects of "good taste" occur (solid lines) in positive relationships (2) between EJ and OE ($\beta_{OE,EJ} = .917$, $t(217) = 33.952$, $p < .001$) and (3) between OE and PA ($\beta_{PA,OE,EJ} = .508$, $t(216) = 3.137$, $p = .002$). Further, (4) there remains only a nonsignificant direct relationship (solid line) between EJ and PA when controlling for OE as a mediator ($\beta_{PA,EJ,OE} = −.216$, $t(216) = −1.333$, NS), supporting the role of perfect or complete mediation. The multiplicative indirect effect, $\beta_{OE,EJ} \times \beta_{PA,OE,EJ} = .917 \times .508 = .466$, reaches statistical significance as gauged by the Aroian-based Sobel test ($z = 3.12$, $p = .002$). The more rigorous bias-corrected and accelerated bootstrapping approach estimates a 99% confidence interval of .0415 to .9226 (indicating that the indirect effect significantly exceeds zero at the $p < .01$ level). All this implies, as in previous research, that, due to a diluting influence of the multiplicative mediating relationship via Ordinary Evaluation, the overall association between Expert Judgment and Popular Appeal shows the "little taste" phenomenon noted earlier ($\beta_{PA,EJ} = .250$) despite aspects of "good taste" in the intervening relationships between EJ and OE ($\beta_{OE,EJ} = .917$) and between OE and PA ($\beta_{PA,OE,EJ} =$

FIGURE 1

STUDY 1: MEDIATION TESTS (A) WITHOUT CONTROLS FOR MARKET SUCCESS, (B) WITH CONTROLS FOR MARKET SUCCESS, AND (C) ON RESIDUALS WITH MARKET SUCCESS PARTIALED OUT
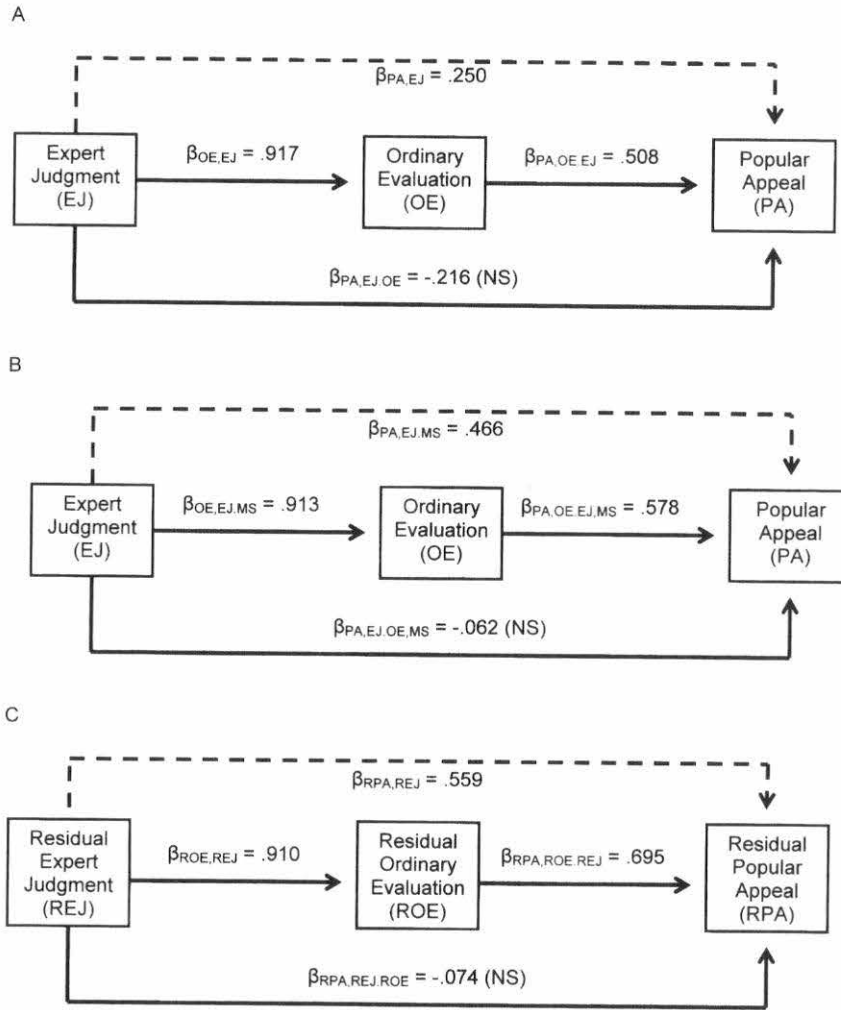
.508). In short, $\beta_{PA,EJ} = .250 = (.917 \times .508) - .216 = .466 - .216$.

Phase 2: Path from Expert Judgment to Popular Appeal with Controls for Market Success. When controlling for MS as a potential source of contaminating bias, as shown in panel B of figure 1, (1) the overall path from EJ to PA (dotted line) increases in strength ($\beta_{PA,EJ,MS} = .466$, $t(216) = 9.902$, $p < .001$). Here the role of "good taste" emerges even more clearly (solid lines) in the intervening relationships (2) between EJ and OE when controlling for MS ($\beta_{OE,EJ,MS} = .913$, $t(216) = 32.250$, $p < .001$) and (3) between OE and PA when controlling for EJ and MS ($\beta_{PA,OE,EJ,MS} = .578$, $t(215) = 5.437$, $p < .001$). Further, (4) the direct effect of EJ on PA with controls for OE and MS (solid line) drops from significance and thereby suggests that OE fully mediates the relationship between EJ and PA when controlling for MS ($\beta_{PA,EJ,OE,MS} = -.062$, $t(215) =$

$-.578$, NS). The multiplicative indirect effect, $\beta_{OE,EJ,MS} \times \beta_{PA,OE,EJ,MS} = .913 \times .578 = .528$, reaches statistical significance by the Sobel test ($z = 5.36$, $p < .001$), with a bootstrap-estimated 99% confidence interval of .1956 to .8220 (indicating significance beyond $p < .01$). These results suggest that, when controlling for the contaminating effects of Market Success, we uncover a "better taste" phenomenon in which the overall relationship between Expert Judgment and Popular Appeal (controlling for Market Success) becomes stronger ($\beta_{PA,EJ,MS} = .466$) due to clear aspects of "good taste" in the intervening relationships (mediated by Ordinary Evaluation) between EJ and OE ($\beta_{OE,EJ,MS} = .913$) and between OE and PA ($\beta_{PA,OE,EJ,MS} = .578$). Here, $\beta_{PA,EJ,MS} = .466 = (.913 \times .578) - .062 = .528 - .062$.

Phase 3: Path from Residual Expert Judgment to Residual Popular Appeal after Partialing Out Market Success. When fully removing the contaminating influ-

ences of Market Success by examining the residuals of EJ, OE, and PA after partialing out MS, as shown in panel C of figure 1, (1) the overall relationship (dotted line) between Residual Expert Judgment (REJ) and Residual Popular Appeal (RPA) increases further in the direction of "good taste" as compared with those reported earlier ($\beta_{\text{RPA,REJ}} = .559$, $t(217) = 9.925$, $p < .001$), indicating an explained variance of $r^2 = .312$. We again find strong intervening roles (solid lines) of the relationships (2) between REJ and ROE ($\beta_{\text{ROE,REJ}} = .910$, $t(217) = 32.324$, $p < .001$) and (3) between ROE and RPA ($\beta_{\text{RPA,ROE,REJ}} = .695$, $t(216) = 5.450$, $p < .001$) with (4) only a small and nonsignificant direct contribution from REJ to RPA when controlling for ROE ($\beta_{\text{RPA,REJ,ROE}} = -.074$, $t(216) = -.580$, NS). Thus, via complete mediation, the indirect effect of REJ on RPA through the intervening role of ROE, $\beta_{\text{ROE,REJ}} \times \beta_{\text{RPA,ROE,REJ}} = .910 \times .695 = .633$, is significant by both the Sobel test ($z = 5.37$, $p < .001$) and the bootstrapped 99% confidence interval of .2420 to .9798 (significance beyond $p < .01$). Here, as in the two preceding phases, the overall relationship between REJ and RPA appears to result from strong mediating links consistent with "good taste": $\beta_{\text{RPA,REJ}} = .559 = (.910 \times .695) - .074 = .633 - .074$.

Tentative Implications. Clearly, our previous conclusions concerning the phenomenon of "little taste" deserve careful scrutiny and potential revision in light of the new and improved results from study 1. Specifically, when using clearly sequenced and independent measures of Expert Judgment, Ordinary Evaluation, and Popular Appeal with controls for the potential contaminating influences of Market Success (opening screens, box office, and video rentals) on all three of the relevant variables (EJ, OE, and PA), the overall relationship between Residual Expert Judgment and Residual Popular Appeal appears to show "good taste" via the strong intervening role of Residual Ordinary Evaluation. Here, the overall phenomenon of "little taste" found in earlier studies and reproduced by the findings in phase 1 ($\beta_{\text{PA,EJ}} = .250$, $r^2 = .0625$) has been replaced in phase 3 by an overall phenomenon of "good taste" ($\beta_{\text{RPA,REJ}} = .559$, $r^2 = .312$) in which the strength of the relationship between REJ and RPA (after partialing out MS) has increased by a factor of five ($.312/.0625 = 4.99$). However, before acceptance, this conclusion requires replication via a follow-up study based on similarly improved measures and methods. Such an extension of previous work via a replication of study 1 was the primary purpose of study 2.

STUDY 2

Method

Sample. The data for study 2 represent 192 films released during the year 2003 (worldwideboxoffice.com). The collection and investigation of these data make use of variables measured and analyzed in a manner quite similar to that described in study 1 and are therefore summarized only briefly here.

Expert Judgment. Expert Judgment (EJ) was again measured by the average reviewer scores (rottentomatoes .com) posted mostly at the time of a film's release and ranging in number from 8 to 220 reviewers ($M = 125.87$). As a partial check on its validity, EJ shows a strong correlation with the average rating by journalistic film reviewers on a 13-position scale from F ("All-time worst!" $= 1$) to A+ ("Oscar-worthy" $= 13$) given for Yahoo! Critics (YC) at movies.yahoo.com: $r_{\text{EJ,YC}} = .945$ ($t(182) = 39.053$, $p < .001$).

Ordinary Evaluation. Ordinary Evaluation (OE) was measured by the average IMDb rating of excellence given by nonexpert consumers during the first year after a film's release, with numbers of ratings ranging from 22 to 76,740 ($M = 6,581.10$). Again, this measure of OE shows a reassuring degree of stability between the initial period (used here) and a subsequent period (described next): $r = .947$ ($t(190) = 40.521$, $p < .001$). Further, as a check on validity, OE converges satisfactorily with the average score for ordinary evaluation from "All-time worst!" (1) to "Oscar-worthy" (13) provided by Yahoo! Users (YU) at movies .yahoo.com: $r_{\text{OE,YU}} = .775$ ($t(188) = 16.835$, $p < .001$).

Popular Appeal. As before, Popular Appeal (PA) for the new sample of films was gauged by the number of IMDb votes (NV) during the subsequent year following the initial period just described, with numbers ranging from 95 to 56,927 ($M = 4,262.89$). Again, the measure of PA $= \log_{10}(\text{NV})$ shows a reassuring degree of stability between the initial and subsequent periods: $r = .870$ ($t(190) = 24.289$, $p < .001$). Also, as before and as a partial validation, the PA measure used here shows a fairly strong convergence with the logarithm of the IMDb MovieMeter (MM) immediately following the film's video release: $r_{\text{PA,MM}} = -.779$ ($t(189) = -17.093$, $p < .001$).

Market Success. For the reasons described earlier, we again measured Market Success (MS) by a three-item index summing the standardized logarithmic transformations of Opening Screens, Domestic Box Office, and Video Rentals. Principal components analysis of these three market-related variables again produced one factor with an eigenvalue greater than 1.0—this time, 2.499—and loadings of .868 (z_{LogOS}), .945 (z_{LogBO}), and .922 (z_{LogVR}), respectively. The three-item Index of Market Success (MS) still shows a high reliability ($\alpha = .899$). Again, no improvements resulted from including the logs of Estimated Budget and/or International Box Office, though both are again moderately related to Market Success at $r_{\text{MS,EB}} = .580$ ($t(190) = 9.826$, $p < .001$) and $r_{\text{MS,IBO}} = .492$ ($t(190) = 7.781$, $p < .001$), respectively.

Results

The results for study 2 bear a striking resemblance to those for study 1 and, for this reason, lend themselves to a relatively brief summary.

FIGURE 2

STUDY 2: MEDIATION TESTS (A) WITHOUT CONTROLS FOR MARKET SUCCESS, (B) WITH CONTROLS FOR MARKET SUCCESS, AND (C) ON RESIDUALS WITH MARKET SUCCESS PARTIALED OUT

A

B

C
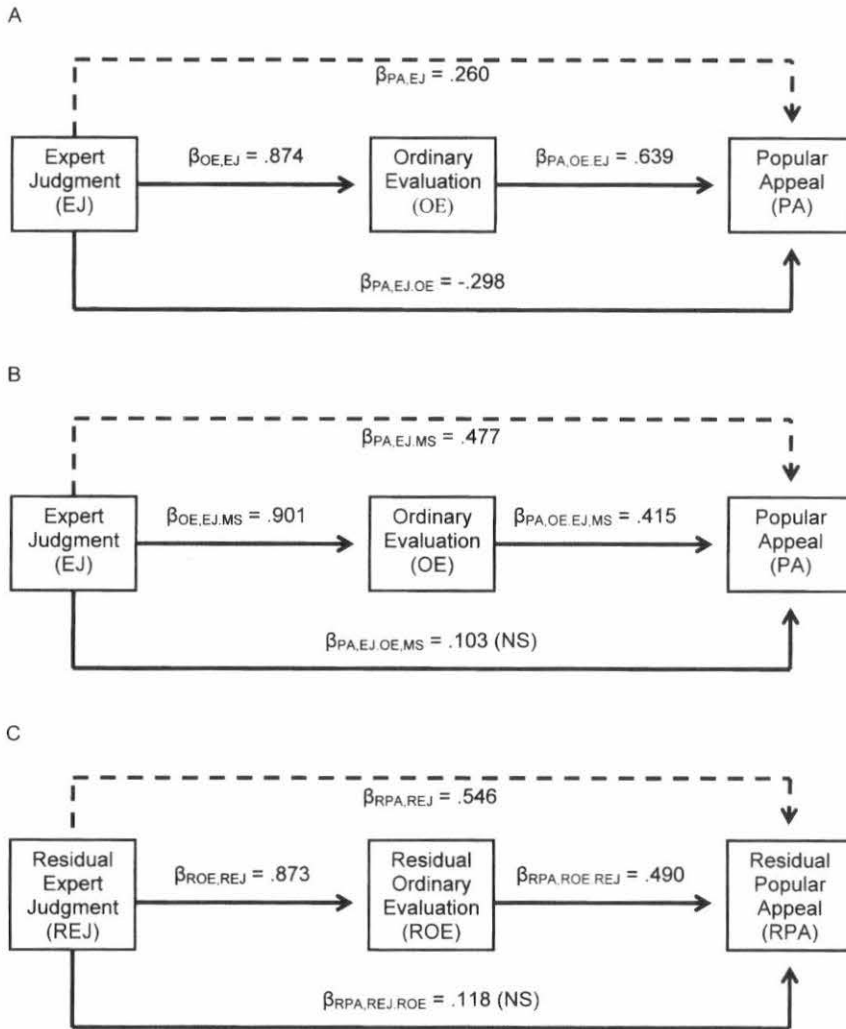
Simple Correlations. The simple correlations (p-levels) among our key variables in study 2 are tabulated below.

	OE	PA	MS
EJ	.874	.260	−.309
	(.001)	(.001)	(.001)
OE		.379	−.191
		(.001)	(.008)
PA			.555
			(.001)

Again, a high degree of association appears between EJ and OE ($r_{OE,EJ} = .874$). However, we would again suggest that, because EJ and OE are measured on completely different groups of people using completely different assess-

ment procedures, we have reason for confidence that the high $r_{OE,EJ}$ is not attributable to a source-bias or common-methods artifact.

Phase 1: Path from Expert Judgment to Popular Appeal. The path from Expert Judgment (EJ) to Popular Appeal (PA) again shows (1) the familiar phenomenon of "little taste" in a significant but weak overall relationship ($\beta_{PA,EJ} = .260$, $t(190) = 3.719$, $p < .001$) with an explained variance of only $r^2 = .0676$ (fig. 2, panel A, dotted line). However, aspects of "good taste" continue to appear (solid lines) in the positive links (2) between EJ and OE ($\beta_{OE,EJ} = .874$, $t(190) = 24.800$, $p < .001$) and (3) between OE and PA ($\beta_{PA,OE,EJ} = .639$, $t(189) = 4.671$, $p < .001$). This time, (4) a marginally significant direct negative relationship (solid line) between EJ and PA when controlling for OE as an intervening variable ($\beta_{PA,EJ,OE} = -.298$,

$t(189) = -2.180$, $p = .03$) indicates partial rather than complete mediation. The multiplicative indirect effect, $\beta_{OE,EJ} \times \beta_{PA,OE,EJ} = .874 \times .639 = .558$, reaches significance by both the Sobel test ($z = 4.59$, $p < .001$) and the bootstrapped 99% confidence interval of .1265 to .9337 (indicating significance beyond $p < .01$). These results again imply that, due to dilution by mediation via OE, the overall correlation between EJ and PA shows the familiar "little taste" phenomenon ($\beta_{PA,EJ} = .260$) despite aspects of "good taste" in the intervening links ($\beta_{OE,EJ} = .874$ and $\beta_{PA,OE,EJ} = .639$). Thus, $\beta_{PA,EJ} = .260 = (.874 \times .639) - .298 = .558 - .298$.

Phase 2: Path from Expert Judgment to Popular Appeal with Controls for Market Success. When controlling for MS (fig. 2, panel B), the role of "good taste" again appears in (1) the overall relationship (dotted line) between EJ and PA ($\beta_{PA,EJ.MS} = .477$, $t(189) = 8.952$, $p < .001$), (2) the intervening link (solid line) between EJ and OE ($\beta_{OE,EJ.MS} = .901$, $t(189) = 24.622$, $p < .001$), (3) the intervening link (solid line) between OE and PA ($\beta_{PA,OE,EJ.MS} = .415$, $t(188) = 4.076$, $p < .001$), and (4) the nonsignificant direct link (solid line) between EJ and PA ($\beta_{PA,EJ.OE,MS} = .103$, $t(188) = .982$, NS), indicating complete mediation. Here, too, the multiplicative indirect effect, $\beta_{OE,EJ.MS} \times \beta_{PA,OE,EJ.MS} = .901 \times .415 = .374$, is significant by both the Sobel test ($z = 4.02$, $p < .001$) and the bootstrapped 98% confidence interval of .0330 to .6640 (significance at $p < .02$). As in study 1, these results suggest a moderate degree of "good taste" overall, accounted for by the relevant indirect effect, such that $\beta_{PA,EJ.MS} = .477 = (.901 \times .415) + .103 = .374 + .103$.

Phase 3: Path from Residual Expert Judgment to Residual Popular Appeal after Partialing Out Market Success. When partialing out all contaminating influences of MS (fig. 2, panel C), (1) the overall relationship between REJ and RPA (dotted line) increases further in strength ($\beta_{RPA,REJ} = .546$, $t(190) = 8.976$, $p < .001$), indicating an explained variance of $r^2 = .298$. Again (solid lines), we find strong intervening links (2) between REJ and ROE ($\beta_{ROE,REJ} = .873$, $t(190) = 24.687$, $p < .001$) and (3) between ROE and RPA ($\beta_{RPA,ROE,REJ} = .490$, $t(189) = 4.087$, $p < .001$) with (4) only a small and nonsignificant direct contribution from REJ to RPA when controlling for ROE ($\beta_{RPA,REJ.ROE} = .118$, $t(189) = .985$, NS), indicating complete mediation. The multiplicative indirect effect, $\beta_{ROE,REJ} \times \beta_{RPA,ROE,REJ} = .873 \times .490 = .428$, is significant by both the Sobel test ($z = 4.03$, $p < .001$) and the bootstrapped 98% confidence interval of .0245 to .7527 (significance at $p < .02$). Thus, as before, the strong relationship between REJ and RPA appears to result from strong mediating links consistent with "good taste": $\beta_{RPA,REJ} = .546 = (.873 \times .490) + .118 = .428 + .118$.

Tentative Implications. The tentative implications of study 1 questioning the validity of the "little taste" phenomenon receive solid corroboration from the findings of

study 2. Specifically, using comparably improved measures and analyses, the overall relationship between Residual Expert Judgment (REJ) and Residual Popular Appeal (RPA) with the effects of Market Success partialed out continues to show "good taste" via the strong intervening role of Residual Ordinary Evaluation (ROE). This time, the overall phenomenon of "little taste" ($\beta_{PA,EJ} = .260$, $r^2 = .0676$) that was found in previous studies and reproduced by the findings from phase 1 has been replaced in phase 3 by an overall phenomenon of "good taste" ($\beta_{RPA,REJ} = .546$, $r^2 = .298$) in which the strength of the relationship between REJ and RPA (partialing out MS) has increased by a factor of four plus ($.298/.0676 = 4.41$). When added to the similar result from study 1, this finding from study 2 encourages us to revise our former conclusions in the direction of crediting the role of "good taste" in the responses of ordinary consumers.

DISCUSSION

We conclude that, when using sequential and independent measures and when controlling for market- and marketing-related aspects of a film's commercial impact, our findings support the conclusion that ordinary consumers show "good taste" to a degree not hitherto recognized. Specifically, previous investigations, as well as first-phase analyses in both studies 1 and 2, have found an overall significant but weak relationship between expert judgment and popular appeal on the order of about $\beta = r = .250$ ($r^2 = .0625$) as a reflection of the so-called little taste phenomenon. By contrast, the third phases of the present studies 1 or 2 show that, with proper controls for the contaminating influences of market success and consistent with the four key criteria for mediation, (1) a "good taste" phenomenon tends to appear ($\beta = .559$ or $.546$; $r^2 = .312$ or $.298$) due to the intervening contributions (2) of expert judgment to ordinary evaluation ($\beta = .910$ or $.873$) and (3) of ordinary evaluation to popular appeal ($\beta = .695$ or $.490$) with (4) only a trivially small and nonsignificant direct contribution of expert judgment to popular appeal when controlling for ordinary evaluation ($\beta = -.074$ or $.118$), thereby indicating perfect or complete mediation. Put differently, when assessed by means of purified measures and refined methods, the "good taste" of ordinary consumers (r^2) turns out to be close to five times what we formerly thought ($.312/.0625 = 4.99$ or $.298/.0625 = 4.77$).

We must emphasize that these new findings do not represent a causal analysis based on a chain of behavioral events in which certain people read movie reviews so as to form evaluative judgments and then use those evaluative judgments to determine what films they like and recommend to others. Rather, we can assert only that films of the sort that win favorable evaluations of excellence from expert reviewers also tend to win approval from ordinary consumers and that films of the kind that ordinary consumers consider excellent tend to elicit liking and word-of-mouth or click-of-mouse recommendations.

This qualification counts as both a strength and a limi-

tation. It reflects a strength in the sense that our aggregate-level data and cross-sectional analyses are based on huge numbers of observations gathered over time from independent sources. Thus, expert judgments, ordinary evaluations, popular appeal, opening screens, domestic box office, and video rentals all represent measures collected independently from separate and large groups of people. This aspect of the approach used here greatly reduces the danger of distortions due to response-style artifacts, consistency biases, or other comparable sources of contamination. Further, the results apply to a large real world sample of over 400 films and remain consistent over a 4-year period from 2000 to 2003.

However, as a correlative limitation, our aggregate-level data and cross-sectional analyses do not permit causal statements at the individual level about whether a person responds to a movie review by evaluating the film favorably and then liking it enough to recommend it to others. The latter issues remain important topics for future research conducted by, say, laboratory experiments or ethnographic inquiry. In addition, further investigations are needed to generalize findings from the motion picture industry to other cultural offerings, such as musical performances, museum exhibits, or television programs. Such future studies should illuminate the individual-level behavioral processes—information seeking, preference formation, emotional responses, interpersonal communication, and so forth—that underlie the more aggregate-level cross-sectional phenomena examined in the present studies addressed to the question of whether consumers as an audience of ordinary people have "good taste."

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