Competency Based Recruitment Decisions: 
A Lens Model Approach

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This study showcases an empirical approach to delineate how competencies should be deployed for the purpose of recruitment decisions. A competency-based approach using the Brunswikian lens model was adopted to generate predictors. Three major competencies (people, individual, and business orientation) of HR incumbents were identified in an earlier study. Sixteen vignettes were designed to yield a $2 \times 2 \times 2 \times 2 \times 2 \times 2$ (High/low people $\times$ High/low individual $\times$ High/low business orientation $\times$ Urban/rural background) completely within factorial design. These vignettes were administered to 35 HR professionals. The main effects of individual, business, & people and their 2-way interactions were significant. Cluster analysis categorized judges who have similar decision-making patterns. Comparing results of binomial logistic with ranking scores illustrates that the way interviewers actually evaluate candidates may differ from the way they believe they evaluate. Interrater reliability indicated ‘poor’ extent of agreement among judges. The results obtained have been discussed in terms of Brunswik’s Lens model.

Keywords: decision making, HR competencies, Lens model, recruitment/personnel selection

So the person who has walked into my office...how do I analyze him, how do I read him? What behavior traits does he show? Things like attitude, things like sincerity, things like hard work...you cannot judge in an interview. You can only see academically bright...does it mean he is a hardworking person or a sincere person? I am not sure. Pointers are yes...but at the end of the day whether it will actually transfer into real hard work for the organization you are not sure. (A senior level HR manager of a private bank)

Who succeeds in an organization and what finally matters in the job market has been a matter of continuous investigation for decades together. Munsterberg’s (1913) book, Psychology and Industrial Efficiency, which

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marked the beginning of industrial psychology, was much invested in examining how to find the best possible man. It is curious that researchers for a century now (1913–2013) are still riveted to the same question (e.g., Arthur & Villado, 2008; Digman, 1990; Hough & Oswald, 2000; James, 1999; Ones & Viswesvaran, 1998; Ree & Carretta, 1992; Ree, Carretta, & Teachout, 1995; Sackett, Gruys, & Ellingson, 1998; Schmidt & Hunter, 1998; Schneider, Ackerman, & Kanfer, 1996; Wright & Staw, 1999).

Munsterberg (1913), inferring from laboratory psychology noted in his book, “We might ask how far the study of attention, or of perception, or of feeling . . . or of memory . . . can be useful for the purposes of the business man” (p. 22). The influence of laboratory psychology perhaps finally severed when McClelland (1973) asserted that companies should hire based on competencies rather than IQ scores only. In the organizational front, the origins of the notion of competency can be attributed to Prahalad and Hamel (1990), who analyzed the competitiveness of organizations and attributed it to the possession of core competencies. What we practice at the moment is an intertwine of the person with the organization. The discourse of competency is also considered to be a sophistication over ‘job analysis’ (see Sanchez & Levine, 2012). The idea that the person to be hired needed to be understood till the last detail has been around since quite some time. However, only the labels and techniques of understanding the ‘person’ has changed (sometimes tested though the perspective of laboratory psychology, or from job analytic perspective or through competencies). At this juncture, competencies are the preferred model to assess candidates to be hired.

This study understands the phenomenon of decision-making through Hammond’s Social Judgment Theory, which is an extension of Brunswik’s Lens model approach. This approach has the oldest roots in judgment and decision making (Katsikopoulos, 2009). As noted by Karelaia and Hogarth (2008), many researchers have used the same measures for different factors to determine the accuracy of judgment within the lens model paradigm. This model has been chosen for the purpose of studying recruitment because some authors (like Gifford, Ng, & Wilkinson, 1985) believe that the lens model can provide a useful basis from which interviewers could make more accurate assessments of job applicants.

A study by Akhuly and Gupta (2014) mapped cues that were observed while hiring a Human Resource (HR) professional at the junior level. Such an exercise was done with HR professionals for two reasons. One, the competencies of HR Professionals are generalizable across industries and sectors. This means that competencies are not restricted by the product/process of the organization. Two, it is possible that among HR professionals more of soft skills or human centered skills are required which are of interest to a psychology student. Based on the competencies that were generated, a field experiment was conducted, the results of which are reported in this article.
Recruiters from cross sections of organizations did a decision-making task with hypothetical applicants (presented as vignettes). The vignettes developed in this study are much more complex and ‘real’ than has been documented in extant literature (such as Graves & Karren, 1992; Roose & Doherty, 1976; Valenzi & Andrews, 1973). Creating hypothetical resumes with inbuilt competencies was the nearest approximation to the ideal condition (i.e., conducting the study in a live-interview). Vignettes can be accused of being ‘artificial,’ but authors (such as Folger & Turillo, 1999; Martin, 2004) note that by providing respondents with situations they recognize as ‘real,’ they were able to tap into the expectations and reactions which they would have in similar social circumstances. I reiterate that though vignettes are thinly narrated scenarios, however they also operate with a certain notion of the ‘real.’

This article tries to gain cognizance of the person in the context of recruitment through the lexis of competencies. We claim that most studies are restricted only to generating competencies (Alldredge & Nilan, 2000; Hill, 2012; Wickramasinghe & Zoyza, 2009). There are existing studies hinting that competencies should be used in the context of recruitment (Robinson, Sparrow, Clegg, & Birdi, 2007; Suff, 2006; Wickramasinghe & Zoyza, 2009), but there is hardly any empirical study which delineates how competencies should be deployed and made sense of for the purpose of recruitment decisions. This study showcases an empirical approach to demonstrate how decisions could be based on competencies. The data obtained have been analyzed in terms of Brunswik’s Lens model.

**LITERATURE REVIEW**

**Extant Literature Linking Lens Model and Personnel Selection**

Kaufmann and Athanasou (2009) in their meta-analytic paper on lens model have documented the studies carried out within the larger domain of business. Several studies have been deployed in the area of personnel selection using the ‘policy capturing’ approach (such as Dougherty, Ebert, & Callender, 1986; Gifford et al., 1985; Graves & Karren, 1992; Kinicki, Lockwood, Hom, & Griffeth, 1990; Roose & Doherty, 1976; Zedeck, Tziner, & Middlestadt, 1983). These studies have looked at aspects (in full or parts) such as policy capturing in judges in terms of relative weights assigned, functional forms, strategy for combining various cues. They have calculated the variance contributed by nonverbal cues on judgment decisions, seen the impact of interviewer training program on posttraining judgments and gained cognizance of the extent of individual difference between judges. They have
predicted the success of employee (after joining the job) based on a linear combination of cues and pointed out the importance of bootstrapping, where the formula generated is superior to the decision maker himself.

Theoretical Underpinnings

The simplest model used in the Social Judgment Theory research is the Single System Design (Cooksey, 1996/2008, p. 56), which is identical to the classical ‘policy capturing’ model. Here, we study the judgments of a person but no comparison with actual environmental outcomes is possible. The design used for the present study is best depicted by the \( n \)-system design (Cooksey, 1996/2008, p. 78). The \( n \)-system design is a logical extension of the Lens model single system design involving many judges. The essential goal of the \( n \)-system design is to capture and compare policies and identify factions within the group (Cooksey, 1996/2008, p. 78). Based on this theoretical understanding we propose the model below for the current study depicted by Figure 1.

For one candidate (or interviewee) \( X_1, X_2, X_3, X_4, \ldots X_n \) are the competencies which get reflected through the behavioral indicators or cues. The recruiters, say, \( Y_1, Y_2, \) and \( Y_3 \) evaluate each candidate based on these competencies. \( Y_s \) is the judgment of one recruiter to hire or not to hire. Therefore, \( Y_s = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots + \beta_n X_n \), where, \( \beta_s \) is the

![Figure 1. Lens model depicting decision making by many judges while recruiting HR professionals.](image-url)
weightage given to each competency according to the importance of that competency in the hiring decision.

The present study is an attempt to capture how much importance is given to each competency and/or combination of competencies in arriving at selection decisions.

**METHOD**

**Sample**

Snowball sampling was used to reach out to HR professionals across cross sections of organizations in India (see Table 1), who had at least one year of recruitment experience. One hundred three HRs had started taking the survey, of whom only 35 completed till the end. For professionals who did not complete the experiment, their data were dropped. So, the response rate was 34%. The experiment lasted for one hour.

Of the 35 recruiters, 14.28% were at the rank of management trainees, 42.85% were managers, and 42.85% were in the senior management level. Among 35 recruiters, 14.28% had work experience between 0 to 2 years, 20% between 2 to 5 years, 20% between 5 to 10 years, and 45.71% had work experience between 10 years and above. Of the 35 respondents, 28.57% had recruitment experience between 0 to 2 years, 25.71% between 2 to 5 years, 28.57% between 5 to 10 years, and 17.14% had recruitment experience between 10 years and above.

<table>
<thead>
<tr>
<th>Sector of business</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrochemical</td>
<td>8</td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
</tr>
<tr>
<td>Business process outsourcing</td>
<td>5</td>
</tr>
<tr>
<td>Recruitment firm</td>
<td>3</td>
</tr>
<tr>
<td>Information technology</td>
<td>1</td>
</tr>
<tr>
<td>Fertilizers and chemical</td>
<td>1</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>1</td>
</tr>
<tr>
<td>Media</td>
<td>1</td>
</tr>
<tr>
<td>Electronics</td>
<td>4</td>
</tr>
<tr>
<td>Consultancy</td>
<td>1</td>
</tr>
<tr>
<td>Construction</td>
<td>1</td>
</tr>
<tr>
<td>Tourism</td>
<td>1</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>
Research Design

Hypothetical resumes (vignettes) were developed based on four competencies, each varied at two levels. These competencies were identified by the authors in an earlier study (Akhuly & Gupta, 2014). The competencies have been summarized in Figure 2 below. However, in the Indian context, background has an important implication (as has been found in the study above), thus we have included the fourth competency as background. It is a completely within factorial design with background (urban, rural), people-oriented (high, low), individual-oriented (high, low), and business-oriented (high, low), yielding a total of 16 vignettes ($2^4 = 2 \times 2 \times 2 \times 2$). For an example of the vignette see the Appendix A. Each of the 35 judges rated all 16 vignettes.

Procedure Before Deploying the Field Experiment

Validity Check

After the vignettes were developed, they were given to two English language experts. To validate the vignettes, six psychology experts (five

Figure 2. Model showing 9 competencies further clubbed into 3 higher order categories identified for HR professionals at the junior level. See the online article for the color version of this figure.
doctoral researchers and one professor of psychology) were asked to identify the competencies embedded in each vignette guided by the conceptual grid (see Appendix B). The experts were instructed to mark the vignettes on people-oriented (high/low), business-oriented (high/low), and individual orientation (high/low). The extent of agreement varied from 55% to 94%. To increase the construct validity some of the vignettes were rewritten with the help of the suggestions provided.

**Expert Check for ‘Reality’ of Vignettes**

In addition substantial efforts were made to ensure the realism of the vignettes. Seven experts with recruitment experience in the industry reviewed the stimulus material for realism prior to the study. They were told that the hypothetical resumes contain the kind of information that interviewers might normally possess during the post interview phase of the interview process. They had to answer *To what extent does this person appear authentic?* on a 5-point scale, *very unreal* (1) to *very real* (5). There was more than 50% agreement on reality for all the vignettes except vignette 4 (29%) and vignette 8 (28%). The hypothetical candidate in vignette 4 comprised people high–business low–individual low, whereas candidate 8 is constructed of people low–business low–individual low. Although they said that these character sketches are ‘unreal,’ it might in turn mean that they are not likely to encounter such candidates at all. Such candidates may get eliminated in the preliminary screening itself. Also, in the real world there might hardly be candidates who have all competencies at low levels. Because the study is a completely within factorial design, all the vignettes (in spite of some being ‘unreal’) had to be retained.

**Procedure for Carrying out the Field Experiment**

This study was conducted with the help of a survey software (survey gizmo). Each of the 35 judges rated all the 16 vignettes. In the survey, the vignettes have been randomized with a computer software. After having read the vignettes they were required to answer the following set of questions for each of the 16 descriptions: (a) How certain are you to recruit this candidate: *very uncertain* (1) to *very certain* (5); (b) Would you recruit this applicant at the first level, HR generalist position: *Yes/No*; (c) If ‘Yes’, why? If ‘No,’
why? After they had answered all the 16 vignettes, they had to rank order a set of 22 competencies (which could be categorized under individual-, people-, and business-oriented competencies).

RESULTS

The data collected were subjected to statistical analysis using SPSS (Version 18.0). Four-way repeated measures ANOVA, cluster analysis, binomial logistic regression was computed. Interrater reliability was calculated in MS Excel with Fleiss’ multiple rater Kappa coefficient.

The experimental design is a $2 \times 2 \times 2 \times 2$ factorial design. Because all the participants were administered all the conditions in the experiment, it is a repeated-measures design. Here the dependent measure was certainty with which they would recruit the candidate ($1 = \text{very uncertain}, 5 = \text{very certain}$).

The assumption of sphericity in a repeated-measures design was met. Table 2 shows that there was a significant main effect of people, $F(1, 34) = 4.93, p < .03$, individual, $F(1, 34) = 58.43, p < .00$, and business, $F(1, 34) = 22.88, p < .00$, but background was not statistically significant. This effect tells us that if we ignore all other variables, ratings are different for people-high and people-low; individual-high and individual-low, and business-high and business-low.

There was a significant interaction effect between people-oriented and individual-oriented, $F(1, 34) = 8.731; p < .006$. This effect tells us that certainty to hire across people-oriented was different for individual-high and individual-low. There was a significant interaction effect between people-oriented and business-oriented, $F(1, 34) = 11.764; p < .002$, and between individual-oriented and business-oriented, $F(1, 34) = 13.13; p < .001$. Any interaction effect with background was not significant. Figure 3 through Figure 5 show the interaction effects.

As Figure 3 shows, if somebody is high on individual but low on people that person may be recruited with more certainty than somebody who is high on people but low on individual.

If somebody is high on business but low on people that person may be recruited with more certainty than somebody who is high on people but low on business (see Figure 4).

If somebody is high on individual but low on business that person may be recruited with more certainty than somebody who is high on business but

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1 The survey software was chosen in such a way that the ‘back’ button on the web page was disabled. This restricted them from going back to an earlier vignette to change their decision.
low on individual (see Figure 5; if the lines are extended then they will meet, because this interaction is significant).

Now we move on to results based on cluster analysis. In judgment analysis research, the clustering of individual judges generally has the goal of forming clusters of judges whose cue weighting policies are most similar

<table>
<thead>
<tr>
<th>Sources of variation</th>
<th>Type III sum of squares</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>5.402</td>
<td>1</td>
<td>5.402</td>
<td>4.926</td>
<td>0.033</td>
</tr>
<tr>
<td>Individual</td>
<td>149.145</td>
<td>1</td>
<td>149.145</td>
<td>58.426</td>
<td>0</td>
</tr>
<tr>
<td>Business</td>
<td>44.016</td>
<td>1</td>
<td>44.016</td>
<td>22.875</td>
<td>0</td>
</tr>
<tr>
<td>Background</td>
<td>0.516</td>
<td>1</td>
<td>0.516</td>
<td>1.069</td>
<td>0.309</td>
</tr>
<tr>
<td>People × Individual</td>
<td>7.088</td>
<td>1</td>
<td>7.088</td>
<td>8.731</td>
<td>0.006</td>
</tr>
<tr>
<td>People × Business</td>
<td>10.587</td>
<td>1</td>
<td>10.587</td>
<td>11.764</td>
<td>0.002</td>
</tr>
<tr>
<td>People × Background</td>
<td>0.402</td>
<td>1</td>
<td>0.402</td>
<td>0.894</td>
<td>0.351</td>
</tr>
<tr>
<td>Individual × Business</td>
<td>15.445</td>
<td>1</td>
<td>15.445</td>
<td>13.13</td>
<td>0.001</td>
</tr>
<tr>
<td>Individual × Background</td>
<td>0.002</td>
<td>1</td>
<td>0.002</td>
<td>0.957</td>
<td>0</td>
</tr>
<tr>
<td>Business × Background</td>
<td>0.216</td>
<td>1</td>
<td>0.216</td>
<td>0.601</td>
<td>0.444</td>
</tr>
<tr>
<td>People × Individual × Business</td>
<td>0.002</td>
<td>1</td>
<td>0.002</td>
<td>0.001</td>
<td>0.971</td>
</tr>
<tr>
<td>People × Individual × Background</td>
<td>0.045</td>
<td>1</td>
<td>0.045</td>
<td>0.06</td>
<td>0.807</td>
</tr>
<tr>
<td>People × Business × Background</td>
<td>0.945</td>
<td>1</td>
<td>0.945</td>
<td>1.918</td>
<td>0.175</td>
</tr>
<tr>
<td>Individual × Business × Background</td>
<td>0.945</td>
<td>1</td>
<td>0.945</td>
<td>1.53</td>
<td>0.225</td>
</tr>
</tbody>
</table>

Figure 3. Interaction effect of people and individual. See the online article for the color version of this figure.
Hierarchical clustering technique with Ward’s method or the method of minimum variance was used. Cluster analysis was done on the Likert scores (how certain are you to recruit this candidate?). On the basis of the dendogram four clusters of judges were obtained:

- Subjects 1, 3, 13, 14, 16, 19, 20, 22, 25, 28 are in cluster number 1
- Subjects 2, 6, 10, 17, 18, 24, 29, 30, 32, 33 are in cluster number 2
- Subjects 4, 5, 12, 23, 34, 35 are in cluster number 3
- Subjects 7, 8, 9, 11, 15, 21, 26, 27, 31 are in cluster number 4.

We further investigated whether there is a significant difference between clusters on each of the vignettes.

One-way ANOVA was computed for each vignette with the 4 clusters as between subject variance, to find out whether there is statistical difference between the clusters on those vignettes. According to the ANOVA results there is statistical significance among clusters in vig 2, vig 4, vig 6, vig 7, vig 8, vig 9, vig 11, vig 12, vig 14, vig 15, vig 16 (see Figure 6). A statistical difference would mean the clusters rate differently on each vignette, which in fact indicates their differences in agreement.

In this study if we keep the background constant (because ‘background’ in ANOVA results do not show significant difference), and match the vignettes (vignette number: 1 = 9, 2 = 10, 3 = 11, 4 = 12, 5 = 13, 6 = 14,
7 = 15, 8 = 16), then the way the clusters report for similar vignettes should be same. But that does not seem to be the case when we scrutinize the ANOVA results in Table 3.

For vignette 1, the clusters do not show significant difference, $F(3, 31) = 0.681$, $p < .571$, among themselves, but for vignette 9 there is difference

**Figure 5.** Interaction effect of business and individual. See the online article for the color version of this figure.

**Figure 6.** Each of the vignettes are on the $x$ axis; the $y$ axis has the mean of each of the clusters for that vignette. See the online article for the color version of this figure.
Table 3. Matching the Vignettes Keeping ‘Background’ Constant

<table>
<thead>
<tr>
<th>Vignette codes</th>
<th>$F$ value</th>
<th>Significance level ($p$)</th>
<th>Vignette codes</th>
<th>$F$ value</th>
<th>Significance level ($p$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ph ih bh BaU vig 1</td>
<td>0.681</td>
<td>0.571</td>
<td>ph ih bh BaR vig 9</td>
<td>3.178</td>
<td>0.038</td>
</tr>
<tr>
<td>ph ih bl BaU vig 2</td>
<td>4.253</td>
<td>0.013</td>
<td>ph ih bl BaR vig 10</td>
<td>2.523</td>
<td>0.076</td>
</tr>
<tr>
<td>ph il bl BaU vig 3</td>
<td>0.845</td>
<td>0.48</td>
<td>ph il bl BaR vig 11</td>
<td>4.336</td>
<td>0.012</td>
</tr>
<tr>
<td>ph il bl BaU vig 4</td>
<td>23.769</td>
<td>0</td>
<td>ph il bl BaR vig 12</td>
<td>11.002</td>
<td>0</td>
</tr>
<tr>
<td>pl ih bh BaU vig 5</td>
<td>0.63</td>
<td>0.601</td>
<td>pl ih bh BaR vig 13</td>
<td>2.653</td>
<td>0.066</td>
</tr>
<tr>
<td>pl ih bl BaU vig 6</td>
<td>4.063</td>
<td>0.015</td>
<td>pl ih bl BaR vig 14</td>
<td>14.312</td>
<td>0</td>
</tr>
<tr>
<td>pl il bh BaU vig 7</td>
<td>7.698</td>
<td>0.001</td>
<td>pl il bh BaR vig 15</td>
<td>6.327</td>
<td>0.002</td>
</tr>
<tr>
<td>pl il bl BaU vig 8</td>
<td>9.796</td>
<td>0</td>
<td>pl il bl BaR vig 16</td>
<td>34.296</td>
<td>0</td>
</tr>
</tbody>
</table>

among clusters, $F(3, 31) = 3.178, p < .038$. For vignette 3, the clusters do not show significant difference, $F(3, 31) = 0.845, p < .48$, whereas for vignette 11 there is significant difference, $F(3, 31) = 4.336, p < .012$.

Similarly vignette 5 is clearly statistically nonsignificant, $F(3, 31) = 0.63, p < .601$, but vignette 13 is also statistically insignificant but significance level is just at 0.06, $F(3, 31) = 2.653, p < .066$. The above results may hint that background might have had some effect, though the recruiters have mentioned several times that background does not matter.

In the section below we discuss the results of binary logistic regression. Binary logistic regression was performed to find out which predictor was given more importance of the four predictors (people, individual, business, background). Dependent measure was the dichotomous variable (Would you recruit this applicant at the first level, HR generalist position? yes/no). Because previous literature was not available, Forward: Likelihood Ratio method was chosen to obtain stepwise binary logistic regression. This was performed first on the overall data set (i.e., on all the 35 judges across all the 16 vignettes) and then separately on each cluster. Two models have been computed, the first model is with interaction effects (of all the predictor variables), whereas the second model does not have interaction effects. Model without interaction effect has been reported for the sake of feasibility of comparison with the ranking scores (as will be elaborated later).

A logistic regression analysis (without interaction effect) predicted whether candidates would be selected or rejected on an interview by 35 interviewers using the four competencies as predictors. A test of the full model against a constant only model was statistically significant, indicating that the predictors as a set reliably distinguished between candidates who were selected and rejected (chi square = 208.985, $p < .000$ with df = 2). Nagelkerke’s $R^2$ of .417 indicated a moderate relationship between prediction and grouping. Prediction success overall was 75.7%, which means

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2 About 0.5 is deemed practically significant (see Hair, Black, Babin, Anderson, & Tatham, 2006, p. 398).
three-fourths of the time the model can classify correctly. The Wald criterion demonstrated that only individual and business made a significant contribution to prediction ($p = .00$, 0.00, respectively). All other variables were not significant predictors. The exponentiated coefficient indicated that a one-unit change in the independent variable will increase the odds of getting selected by 1278.5% for individual and 350.3% for business (for calculations to convert exponentiated coefficients into percentage of the odds ratio see the Appendix C).

The respondents at the end of the survey were asked to rank order 22 competencies which were pooled into the four broader competencies. The aim was to map what they thought as important (while ranking) as opposed to what they actually gave importance (while deciding). The ranking that was given to each of the competencies were converted into weights (by using TOPSIS, for more see Hwang & Yoon, 1981).

The weights that were obtained on each of the competency were summed and later aggregated in terms of the four broader competencies (viz., people, individual, business and background) for each judge. Table 4 shows the comparison of percentages obtained from the exponentiated coefficient with the weights obtained from the ranks of competencies for the entire data set.

The overall sample indicated that while judging maximal weightage was given to individual as a competency and so was the case while ranking later. But there is a discrepancy for people and business. While judging ‘business’ was given more importance, but while ranking ‘people-orientation’ was given more weightage than business.

To understand this trend at some more depth, stepwise binary logistic regression was carried out for each of the four clusters (the ones that were obtained from the cluster analysis results). Table 5, compares across clusters, the percentages obtained from the exponentiated coefficient with the weights obtained from the ranking of competencies.

In cluster 1, 2, and 3 while judging maximal weightage was given to individual as a competency and so is the case while ranking later. Only in cluster 4 while judging maximal weightage was given to business than individual but while ranking ‘individual’ was given more weightage.

| Table 4. Comparison of Percentages (From Exponentiated Coefficient) With the Weights (Obtained From the Ranks of Competencies) for the Entire Data Set |
|-------------------------------|-----------------|
| Percentage from exponentiated coefficient | Average weights from ranking |
| Individual | 1278.5 | 0.345 |
| Business | 350.3 | 0.163 |
| People | 0.242 |
For the second preference (in cluster 1 and 2), there is a discrepancy between people and business. While judging ‘business’ was given more importance, but while ranking ‘people-orientation’ was given more weight-age than business.

The same weights can be calculated in terms of relative percentages as shown in Table 6.

The clusters can be further compared in terms of model fit. We compare model fit in terms of Nagelkerke’s $R^2$ and classification accuracy. Nagelkerke’s $R^2$ (a pseudo $R^2$ measure reflecting the amount of variation accounted for by the logistic model) for Cluster 1, 2, 3, and 4 is .754, .459, .320, and .251, respectively. According to the classification matrix (which represents the levels of predictive accuracy achieved by the logistic model) the percentage of cases correctly classified by cluster 1, 2, 3, and 4 are 93.8%, 78.8%, 75.0%, and 69.4%. We can clearly see that the model fit and the predictive accuracy is much higher of cluster 1 than 2, 3, and 4. It was interesting to get a sense of the profiles of judges who are in cluster 1 with the demographic data collected. However, analysis shows that a clearly visible pattern in the data does not emerge.

### Table 5. Comparison of Percentages (From Exponentiated Coefficients) With the Weights (Obtained From the Ranks of Competencies) Across Clusters

<table>
<thead>
<tr>
<th>Percentage from exponentiated coefficient</th>
<th>Average weights from ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1</td>
<td>Cluster 2</td>
</tr>
<tr>
<td>People 340.1</td>
<td>0.273</td>
</tr>
<tr>
<td>Individual 61012.1</td>
<td>1874.6</td>
</tr>
<tr>
<td>Business 5987.9</td>
<td>216.9</td>
</tr>
</tbody>
</table>

Note. In the first table, values in the cell mean that one-unit change in the independent variable will increase the odds of the person getting selected by how much percentage.

### Table 6. Comparison of Exponentiated Coefficients With Ranking Scores Across Clusters by Converting Both Scores to Relative Percentages

<table>
<thead>
<tr>
<th>Relative cue weightage</th>
<th>Weights from ranking (average values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1</td>
<td>Cluster 2</td>
</tr>
<tr>
<td>People 0.077</td>
<td>0.333</td>
</tr>
<tr>
<td>Individual 0.333</td>
<td>0.170</td>
</tr>
<tr>
<td>Business 0.213</td>
<td>0.377</td>
</tr>
</tbody>
</table>

Note. We obtain the relative cue weightage as given in Cooksey, 1996/2008, p. 297 and p. 302.
Numerous computational procedures have been proposed in the literature for quantifying the extent of agreement among raters (Gwet, 2010, p. 2). To measure agreement beyond chance, Cohen (1960; as cited in Gwet, 2010) estimated the expected chance agreement rate defined as the Kappa coefficient (see equation 2.3 in Gwet, 2010, p. 16). Interrater reliability of judges using Kappa statistic when number of categories is 2 (for the question would you hire this candidate? yes/no) was calculated (according to Gwet, 2010, p. 27). Fleiss’ multiple rater Kappa coefficient (using the formula 2.9, 2.11 and 2.13 in Gwet, 2010, pp. 27–28) was 0.343685. According to Fleiss’ kappa benchmark scale (see Table 6.2, Gwet, 2010, p. 115) the value of 0.343685 indicated ‘poor’ extent of agreement among judges.

**DISCUSSION**

As referenced in the introductory section, the potential employee was understood through the language of competencies. The lingering curiosity has been to find out which competencies are actually given more importance as opposed to others.

Methods such as ANOVA were useful to delineate judgments to force attention on the relevant competencies. The ANOVA table (see Table 2) showed that there was a significant main effect of people, individual, and business, but background was not statistically significant. We note the interaction effects. One can make sense of these interactions with the help of the grid used to develop the vignettes (see Appendix B).

We cannot make conclusive statement about the effect of ‘background’ (rural/urban) in this study, because main effect and interaction effect with background is statistically nonsignificant. Results of one-way ANOVA (see Table 3) for similar vignettes when matched (keeping background constant) showed that vignettes that have the rural component (vig. 9, 11, 13) are statistically significant, which meant there was dilemma among the clusters in taking candidates from ‘rural’ background. These results are in spite of judges constantly reporting that capabilities mattered more than family background. Findings corroborate with Jodhka and Newman’s (2007) study, which focused on attitudes of hiring managers in India’s organized private sector, where they documented that virtually every interviewer thought that workers should be recruited strictly according to merit. However, in their study some HR managers have confessed that, “we look at . . . (1) Good background, (2) educated parents, (3) brother and sister working, and (4) preference for those from urban areas.”

Brunswik (1952, 1956; as cited in Cooksey, 1996) maintained that each organism’s behavior should be individually examined termed as the idio
statistical approach and statistically tested before attempting to generalize. Hierarchical clustering was computed to identify clusters among the 35 judges, who used similar decision strategies to evaluate applicants’ qualifications.

Though 4 clusters were generated by the dendogram, we had no cognizance of how each cluster was different from the other. Results of binary logistic regression showed the dimensions that were the differentiating factors between the clusters, though, clusters 1, 2, and 3 gave maximal importance to ‘individual’ followed by business (cluster 1 and 2) and then people (cluster 1). However their log-odds ratio varied across clusters. All these results taken together (at least cluster 1, 2, and 3) illustrate that being ‘high’ on individual increases the probability of getting selected than the other two competencies of business and people. Binomial logistic regression on the overall sample showed that while judging maximal weightage was given to individual as a competency and so was the case while ranking later.

These results are to an extent counterintuitive because if we thought all that matters is knowing the discipline well in terms of textual knowledge, clarity of concepts, commitment to the discipline, ability to crunch endless data, and familiarity with the business process. Results in the present study illustrate that being ‘business oriented’ is clearly not the most important competency. Competencies related to ‘individual-orientation’ such as personality and attitude, values, enthusiasm, and thought process are the ones that clearly matter. Corroborating with the above results, Nyhus and Pons (2005) note that a common assumption among labor economists is that anything rewarded in a competitive labor market must be a skill. However, Bowles, Gintis, and Osborne’s review (2001; as cited in Nyhus & Pons, 2005) showed that empirical studies of wage determination suggest that factors other than skills must be rewarded. Groves (2005) also documents that a surprisingly large portion of the variance in earnings is not explained by cognitive performance and educational attainment. Filer (1981) tested the effects of 10 factors, of which he showed that sociability, friendliness, thoughtfulness, and general activity (energy and vitality) have an effect on earnings independent of parental background, cognitive ability and schooling. Barrick and Mount (1991) and Salgado (1997) have documented robust relationships between some of the Big Five personality factors and productivity. The metastudies of Barrick and Mount (1991) and Salgado (1997) showed that emotional stability has a positive relationship with productivity, and it is therefore congruent with the efficiency wage hypothesis that we find a positive association between emotional stability and wages. Moss and Tilly’s interviews (1995; as cited in Groves, 2005) with employers reported

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3 Because each judge took 16 vignettes, the data points were too low to carry out logistic regression (to capture their policies) for a single judge.
that skills such as motivation, teamwork skills, demeanor, and the ability to interact with others as increasingly important in labor market success. Stasz (2001) also confirms that employers are often more concerned about soft skills or attitudes, rather than academic or technical knowledge or competencies. They seek employees with the right attitudes and dispositions toward work—individuals who are motivated, reliable, and willing to learn and to take responsibility for their own learning.

The above argument can be extended to managers and leaders in general. Hogan, Raskin, and Fazzini (1990) summarize that there is a systematic relationship between personality and managerial competence. They further go on to say that certain kinds of people with identifiable personality characteristics tend to rise to the tops of organizations. Dotlich and Cairo (2003) explore and further investigate the derailers such as arrogance, melodrama, volatility, excessive caution, habitual distrust, aloofness, mischievousness, eccentricity, passive resistance, perfectionism, and eagerness to please that lead to failure of leaders and CEOs. Their thesis (analogous to ours) is that failure often has more to do with who people are than with what they know or how bright they are. Hogan and Kaiser (2008) also argue on similar lines.

Now that we have some understanding of which competencies triumph in the job market, an attempt was made to understand the minutiae of their decisions through the idea of perception. Brunswik emphasized throughout the importance of ‘perception’ in judgment (see Doherty & Kurz, 1996). The principal idea was that perception of the physical (and social) world was derived from multiple fallible (i.e., probabilistic) sources of information. According to Bühler (1927; as cited in Doherty & Kurz, 1996), “perception was also based on signs—signs which function as . . . cues in the case of observation” (p. 115). Hammond (1996) questions, “What observable tangible indicators a person uses when inferring the intangible, the unobservable, in another person” (p. 87).

To answer Hammond’s question in this study, for the candidate in vignette 14, there were multiple cues given out by the candidate where each recruiter latched on to different cues. All these cues are fallible and interchangeable in some way or the other. For example, on hard work and enthusiasm, one recruiter from cluster 2 who rejected her said the following:

Although she seems to be a hardworking and capable enough candidate, she has been impolite on a number of occasions. As a HR generalist she would need to interact with a lot of people and would need to get the work done. She should have the patience to hear others.

Another one from cluster 2 who selected her on the same basis said, “She seems to have strong likes/dislikes, but some of her qualities like hard work, energy, enthusiasm is what we would require at the entry level and hence she qualifies.” Another recruiter from cluster 1 though rejected her, justified himself as follows:
J has a decent personality . . . however she displays traits which would alert a hiring manager
to recruit her in a professional work environment. She displays a certain amount of immaturity
in her dealings with people and would need to follow professional etiquette in interacting with
people like the play director in a professional set up. At an early stage in her career, she has
got to be receptive about instructions and feedback else her development will be stunted. Also,
she does not seem to display consistent behavior, she will not follow the play director’s
instructions but will follow through the dissertation supervisor’s instructions (though grudg-
ingly). As a result her behavior is not predictable which could create people conflicts.
Organizations need ‘smart workers’ more than ‘hard workers.’

The above example illustrates what Hammond (1996, pp. 86–87) puts
forth in an abstract way, “the lens model tells the researcher what to look for . . . How is the information that can be ‘seen’ used by the organism to make
inferences about the ‘unseen’?” It is important to note that decision making
was one domain of reasoning that Brunswik saw as cutting across the
dichotomy of perception and thinking (Doherty & Kurz, 1996). Perception
was described as being “uncertainty-geared,” as working with a multitude of
‘vicarious cues’ of limited validity (Brunswik, 1966, p. 488; as cited in
Doherty & Kurz, 1996). Thinking, on the other hand, was described as
‘certainty-geared’ and ‘machine-like.’ It is not that the person does not think
or does not need to think (see the way the recruiter above justifies his
decision), but it is the earlier instance of perception which is followed by
thinking which makes decision making an intriguing phenomenon.

If the quintessence of decision making is about choosing between alter-
natives (Hardman & Macchi, 2003), then one would definitely want to know
whether that choice was right or wrong. The moment we factor in the
dichotomy right/wrong, it automatically means there is a criteria against which
one has to measure. Hammond claims that conclusions about the competence of
judgments and decisions will depend upon the selection of coherence or corre-
spondence as the criterion (Hammond, 2008; as cited in Dunwoody, 2009). The
correspondence theory of truth focuses on the correspondence of ideas with facts,
rather than on the coherence of ideas with ideas. Thus, the word ‘correspon-
dence’ can be roughly translated into accuracy (Hammond, 1996, p. 95). In a
typical double system lens model it would be corresponding ecological validity
with functional validity, but in a lens Model n-systems design comparison with
actual environmental outcome is not possible.

In fact, Weiss, Brennan, Thomas, Kirlik, and Miller (2009) think that it
is not always possible for an evaluator to know the best answers which
correspondence as a criterion may demand. We have calculated inter-rater
reliability (with Fleiss multiple rater Kappa coefficient) for quantifying the
extent of agreement among raters (as suggested by Gwet, 2010, p. 2).
Interrater reliability is a measurement of coherence criterion, extending
beyond intrapersonal coherence to interpersonal coherence. That is, beliefs
held by an individual are true if they are consistent with widely accepted
beliefs of other individuals. This interpersonal coherence is what gives the
coherence theory of truth normative standing (Dunwoody, 2009). The criticism with consensus (a coherence criterion) is simply that people may agree on poor answers (Weiss et al., 2009).

Accuracy or ‘Functional validity’ in our case (because we have followed an n-system design, rather than a standard double system lens model design) would mean examining their cartographic practice, where a ‘good’ decision would mean that mapping (because we compare between cues that are given importance in the judgment task [weights obtained in logistic regression] to cues that are thought to be important [weights obtained from ranking]) was done properly and a ‘bad’ decision is where mapping was not accurate. The ambition was not to find out whether the ‘map’ itself is rational/logical or not (because we are not doing the exercise of validation of cues per se) but how the mapping works. This mapping has been mentioned as ‘awareness index’ (see Graves & Karren, 1992). In cluster 1, 2, and 3, while judging maximal weightage was given to individual as a competency and so was the case while ranking later. Only in cluster 4 while judging maximal weightage was given to business than individual but while ranking ‘individual’ was given more weightage. For the second preference, in cluster 1 and 2 there is a discrepancy between people and business. While judging ‘business’ was given more importance, but while ranking ‘people’ was given more weightage than business. Thus, the way in which interviewers actually evaluate candidates may differ from the way in which they believe they evaluate candidates. Degree of accuracy is proportional to the correctness of mapping. This I would argue is again adhering to the coherence criteria of truth. The coherence theory of truth states that “a set of two or more beliefs are said to cohere if and only if (a) each member of the set is consistent with any subset of the others and (b) each is implied by each of the others individually (Kirkham, 1992; as cited in Dunwoody, 2009). Schmitt (2004; as cited in Dunwoody, 2009) attesting to the coherence theory of truth emphasizes that truth is assessed via consistency of belief.

Conclusion

This article has attempted to answer through the lexis of competency which competencies are important for an HR at a junior level to get hired. Main effects and interaction effects of ANOVA show that HRs who possess some combination of the above mentioned competencies have more certainty of getting recruited than others. Cluster analysis categorized judges who have similar decision making patterns. Comparing results of binomial logistic with ranking scores illustrates that the way interviewers actually evaluate candidates may differ from the way they believe they evaluate. Inter-rater reliability indicated ‘poor’ extent of agreement among judges.
Brunswik emphasized the role of ‘perception,’ which is the judge’s ability to infer the unseen from the ‘seen.’ The lens model emphasizes that perception and thought cut across each other in decision making. Thus it is imperative to appreciate the intertwining of both while studying decision making. Though much of Brunswik’s lens model rests on the ideas of correspondence, the coefficient of interrater reliability and examination of their cartographic practice all point toward the coherence criterion. It is therefore an oversimplification to discuss the entirety of the Brunswikian program as correspondence oriented (Dunwoody, 2009).

‘Representative design’ in Brunswik’s terms sought to study behavior under the naturally occurring entangled conditions in the ecology (Cooksey, 1996/2008). To understand decisions ‘in the wild’ vignettes were used. Though this study was simulated, the sample consisted of actual recruiters from the industry. Experimental design such as the present one cannot be accused very hard of being ‘unreal’ because Folger and Turillo (1999) argue that the scenarios in thought experiments may be hypothetical (‘unreal’ in some sense) and thinly abstract, but they nonetheless encourage a type of vicarious participation which may be called ‘embodied participation.’ Folger and Turillo (1999) emphasize, “We see experimental design as a thought-trial or mental-modeling tool. The point is to ‘tease out’ such issues as the constructs worth focusing upon . . . . These variables become the on–off switch in the sense that their manipulation (on or off) has an effect on the construct of interest” (p. 753).

Implications

This study showcases an empirical approach to demonstrate how decisions could be used based on competencies. The competencies generated can be used as guidelines and checklists by HR professionals at the time of recruitment. The competency model developed may be used to develop a training manual for interviewers. The training may foster recruiters to assess personnel based on objective competencies in order to avoid risky decisions. With the help of these competencies a psychometric tool can be developed which can be validated by linking it up to performance ratings. On the basis of the same tool candidates can be mapped while hiring. The vignettes developed can be used for future research in this area. Because the vignettes have been validated, researchers and practitioners can use the vignettes in training modules, which may be useful in developing interviewing skills and interobserver reliability. In the lines of similar research design this study can be tested in another culture to understand possible differences.

Both a limitation and also a strength of the study is that participants were chosen from a cross section of organizations, which might have led to a low
interrater reliability. However, we had deliberately chosen from a cross section because an earlier study (Akhuly & Gupta, 2014) suggested that HR competencies are generalizable across industries and sectors. Because the sample consisted only of HR professionals, certain competencies have emerged as important. However, in selection of HRs if there are recruiters from other functional areas, business-related competencies might have emerged as important.

REFERENCES


James, L. R. (1999). Use of a conditional reasoning measure for aggression to predict employee reliability. Presented at the 14th Annual Meeting of the Society of Industrial and Organizational Psychology, Atlanta, Georgia.


COMPETENCY BASED RECRUITMENT DECISIONS


(Appendices follow)
Appendix A
Example of a Vignette

vig 5  ln2m3m4m People low Individual high Business high Background urban

[The competencies in the box above were not mentioned while administering the vignettes. They only had access to the story and not the in-built competencies]

vig 5:
Early schooling: Doon School
Father’s education: M.A. in geography
Occupation of father: Administrative services
Permanent residence: Bhopal
Mother’s education: M.A., M.Ed.
Occupation of mother: lecturer

M is in the final year of his MBA education training to become an HR. He usually keeps to himself and has just a friend or two—and that too, because those two boys themselves are friendly with almost everyone around. M usually avoids interacting with his female classmates unless there is something strictly official—such as when he is made part of a team for assignments and he finds himself in a heterogeneous group. He feels uncomfortable and makes no eye contact while talking to them, and this in turn offends most of them. The girls find him aloof and reticent; so, they too avoid him and he is variously referred to as arrogant, paranoid, and so on. But the team he is made part of during group assignments is usually happy, because M is extremely sincere in his work and a hard-worker, finishing tasks on time and doing a pretty good job of them. Also, when he is forced to interact with others, they do not find him as snobbish and arrogant as they thought. While planning their projects, one also catches him cracking an occasional joke and offering to help others in completing their parts, even when he takes the onus of doing the most difficult parts of the assignments himself. As has happened over the past two years, after a group assignment is submitted the newly found friends would try to continue their friendship with him, but then, most of the times they would find him withdrawn and aloof again. But he is a favorite among his teachers—they know he is sharp, a fast learner, and extremely responsible. He knows his field and is up to date with current news and a lot of other information. He is known to read a lot, spend a lot of time in the libraries, and had also submitted a short paper to a journal. Though it got published, people learned of it only when someone else broke the news. M had not mentioned it to anybody. When a national daily had come to interview some students regarding their take on reservation in institutes of higher education, M had shared his views too and people had been really

(Appendices continue)
happy to find him share well-informed, rational, and emotionally-justified views. The dean of their department had also referred to his views that got published in the news report later that week, adding that M was someone the department and the university were proud of. While his classmates had cheered and tried to congratulate him, he had not reacted to anything, and had not even bothered to acknowledge their kind gestures. This had again earned him the label of being very high-handed and rude. M is more or less sure of what he wants to do in life and how he wants to plan his career. His teachers too are sure that, although he will be not be one to rush up the ladder, he will surely be a steady climber.

Appendix B
The Conceptual Grid

<table>
<thead>
<tr>
<th>Orientation</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>People-oriented i. Team player</td>
<td>i. Team player</td>
<td>i. Team player</td>
</tr>
<tr>
<td>Ability to work in teams</td>
<td>Unable to work with teams/more comfortable working alone.</td>
<td></td>
</tr>
<tr>
<td>ii. Communication Ability to listen</td>
<td>ii. Communication</td>
<td></td>
</tr>
<tr>
<td>Good interpersonal skills</td>
<td>Jumps to conclusion without listening, interrupts</td>
<td></td>
</tr>
<tr>
<td>Has negotiation and</td>
<td>Not comfortable with other people, argumentative</td>
<td></td>
</tr>
<tr>
<td>influencing skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. People orientation</td>
<td>iii. People orientation</td>
<td></td>
</tr>
<tr>
<td>Good relationship person</td>
<td>Aggressive</td>
<td></td>
</tr>
<tr>
<td>Ability to connect with</td>
<td>Cannot connect with people easily (may be shy/introvert/arrogant)</td>
<td></td>
</tr>
<tr>
<td>people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human centric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business-oriented i.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategizing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding the business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>environment in which the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>business operates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Subject matters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High learning ability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application of knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Appendices continue)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Individual orientation</td>
<td>i. Personality and attitude</td>
<td>i. Personality and attitude</td>
</tr>
<tr>
<td></td>
<td>Understanding and reacting to interview questions appropriately</td>
<td>Defensive while answering/too much use of “I” while answering</td>
</tr>
<tr>
<td></td>
<td>High level of confidence (proactive and smart)</td>
<td>Low level of confidence (tested by seeing the person’s reaction under stress)</td>
</tr>
<tr>
<td></td>
<td>Positive attitude and looks for alternative solution. Takes ownership and interest in the process.</td>
<td>Adamant and sticks to what he thinks is the best solution</td>
</tr>
<tr>
<td></td>
<td>Diplomatic in order to get the work done. Addresses grievances smartly.</td>
<td>Not diplomatic; unable to get the work done; too straight forward; end up getting into fights</td>
</tr>
<tr>
<td>ii. Values</td>
<td>High on integrity (ownership of action, maintain credibility)</td>
<td>Low on integrity (does not have the inner strength to decide and stick on)</td>
</tr>
<tr>
<td>Commitment</td>
<td></td>
<td>Does not have honesty to own up; cannot stick on to one thing for long.</td>
</tr>
<tr>
<td>iii. Enthusiasm</td>
<td>High on initiative, energy level, passion</td>
<td>Low on initiative, energy level, passion. Does not do anything more than required.</td>
</tr>
<tr>
<td>iv. Thought process</td>
<td>Clarity of thought</td>
<td>Unwilling to change thought process; adamant and stubborn; unclear about career trajectory.</td>
</tr>
<tr>
<td></td>
<td>Problem solving ability and ability to reason</td>
<td>Unable to articulate with reason and style</td>
</tr>
<tr>
<td></td>
<td>Comfort with ambiguity</td>
<td>Unable to handle situations that have changed dramatically and cope up accordingly.</td>
</tr>
</tbody>
</table>

(Appendices continue)
Appendix C

Variables in the Equation (for the Model Without Interaction Effects)

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95.0% C.I. for Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual(1)</td>
<td>2.332</td>
<td>0.202</td>
<td>133.097</td>
<td>1</td>
<td>.000</td>
<td>10.301</td>
<td>6.931</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.502</td>
<td>0.155</td>
<td>94.087</td>
<td>1</td>
<td>.000</td>
<td>.223</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual(1)</td>
<td>2.624</td>
<td>0.229</td>
<td>131.769</td>
<td>1</td>
<td>.000</td>
<td>13.785</td>
<td>8.807</td>
</tr>
<tr>
<td>Business(1)</td>
<td>1.505</td>
<td>0.226</td>
<td>44.385</td>
<td>1</td>
<td>.000</td>
<td>4.503</td>
<td>2.892</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.432</td>
<td>0.230</td>
<td>111.358</td>
<td>1</td>
<td>.000</td>
<td>.088</td>
<td></td>
</tr>
</tbody>
</table>

Interpreting the logistic coefficients [for step 2 only]:

**Direction of the Relationship**

We can interpret the direction of the relationship directly from the sign of the original logistic coefficients. In this case the sign is positive. As the value of individual (high) increases [individual-high is coded 1], the predicted probability will increase, thus increasing the likelihood that the candidate will be categorized under ‘selected’ [because selected is coded 1].

**Magnitude of the Relationship**

The most direct method of assessing the magnitude of the change in probability attributable to each independent variable is to examine the exponentiated coefficients.

Percentage change in odds = (Exponentiated coefficienti − 1.0) × 100

(Hair et al., 2006, p. 389)

For individual = (13.785 − 1) × 100 = 1278.5
For business = (4.503 − 1) × 100 = 350.3

If the exponentiated coefficient is 13.785, a one-unit change in the independent variable will increase the odds by 1278.5 percent. These numbers can exceed 100 percent change because they are increasing the odds, not the probabilities themselves. The impacts are large because the constant term (−2.432) defines a starting point of almost zero for the probability values. Thus, large increases in the odds are needed to reach larger probability values.

But we also know that to interpret the magnitude of a dummy independent variable:

(Appendices continue)
Odds_{\text{represented category}} = \text{Exponentiated coefficient} \times \text{Odds}_{\text{reference category}}

(Hair et al., 2006, p. 391)

Because the reference category is individual-high (because it is coded 1), this makes the exponentiated coefficient represent the percentage of the odds ratio of individual-high compared with individual-low. Because the coefficient is 13.785, then the odds for individual-high is 1278.5% more than individual-low. The probability of a person of individual-high being selected is 1278.5% more than individual-low. The probability of a person of business-high being selected is 350.3% more than business-low.

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**Call for Nominations**

The Publications and Communications (P&C) Board of the American Psychological Association has opened nominations for the editorships of *Developmental Psychology* and the *Journal of Consulting and Clinical Psychology* for the years 2017–2022. Jacquelynne S. Eccles, PhD, and Arthur M. Nezu, PhD, respectively, are the incumbent editors.

Candidates should be members of APA and should be available to start receiving manuscripts in early 2016 to prepare for issues published in 2017. Please note that the P&C Board encourages participation by members of underrepresented groups in the publication process and would particularly welcome such nominees. Self-nominations are also encouraged.

Search chairs have been appointed as follows:

- **Developmental Psychology**, Suzanne Corkin, PhD, and Mark Sobell, PhD
- **Journal of Consulting and Clinical Psychology**, Neal Schmitt, PhD, and Annette LaGreca, PhD

Candidates should be nominated by accessing APA’s EditorQuest site on the Web. Using your Web browser, go to http://editorquest.apa.org. On the Home menu on the left, find “Guests.” Next, click on the link “Submit a Nomination,” enter your nominee’s information, and click “Submit.”

Prepared statements of one page or less in support of a nominee can also be submitted by e-mail to Sarah Wiederkehr, P&C Board Search Liaison, at swiederkehr@apa.org.

Deadline for accepting nominations is January 7, 2015, when reviews will begin.