Symposium

TITLE

Views on Sensitivity Reviews: Who, How, & What’s Next

ABSTRACT

Major test developers typically include a sensitivity review in the test development process, but little guidance is available about how to conduct reviews. This symposium dissects what makes a high quality sensitivity review process and provides suggestions as to how to improve practice in this area.

PRESS PARAGRAPH

Assessment developers traditionally have been concerned about ensuring test content is free from stereotypes, culturally unfamiliar topics, and inappropriate or offensive language. Despite the fact that professional testing guidelines call for such review, little practical guidance is available as to what are best practices in conducting such a review (e.g., who makes a good reviewer, what kinds of problems are recurrent). The purpose of this symposium is to dissect what makes a high quality sensitivity review process and to provide suggestions as to how to improve practice in this area.
Fairness in testing has been a prominent concern of selection specialists for several decades. While considerable research attention has been paid by organizational psychologists to the general topic of reduction of adverse impact (see Sackett, Schmitt, Ellingson & Kabin, 2001 for a review), some common practices remain less well-researched, such as the practice of having panels of individuals provide sensitivity reviews of test content. Major test developers typically include a sensitivity review (also referred to as a bias review or fairness review) as a step in the test development process (Johnstone, Thompson, Bottsford-Miller & Thurlow, 2008).

The purpose of a sensitivity review is to remove construct-irrelevant factors in tests that might prevent members of groups from responding in ways that allow for correct inferences regarding their standing on constructs (Zieky, 2006). Examples of item content that would typically be viewed as problematic would be portraying women only in stereotypic roles, including content of differential familiarity (e.g., knowledge of sports terms), insensitive labels (e.g., crippled), using non-inclusive language (mankind v. humankind), and graphics that lack diversity or that contain only stereotypic depictions. There are typically three points in the test development process where sensitivity is considered: in item writing, in a pre-administration review, and in item bias analyses after items have been pretested or put into operational use. Our focus in this symposium is on the pre-administration review as that has received scant research attention relative to post-administration reviews (e.g., Scheuneman & Gerritz, 1990; Scheuneman & Grimma, 1997).

While the sensitivity review guidelines of some testing organizations are well documented and publicly available (ACT, 2006; ETS, 2008), little has been written in terms of guidance as to what are typical and what are best practices in conducting such reviews. That is,
while testing texts and standards may mention that one should conduct such a review, little
guidance is provided as to what such a review should entail, who should serve as reviewers or
how effective such reviews are in terms of removing problematic items, improving test-taker
performance and/or mitigating negative reactions of test takers. For example, *The Standards for
Educational and Psychological Testing* (AERA, APA, NCME, 1999) state that “The test review
process should include empirical analyses and, when appropriate, the use of expert judges to
review items and response formats.” However, no clear guidance is provided as to when is
“appropriate,” what makes an individual an expert, or what should be the focus of such review.
Similarly, the International Test Guidelines (International Testing Commission, 2000) note that
“competent test users will make all reasonable efforts to ensure that… the tests are unbiased and
appropriate for the various groups that will be tested”, but provide no specific guidance on what
constitutes “reasonable efforts.”

In this symposium, we provide initial answers to questions regarding the “who, what,
when, and how” of sensitivity reviews as well as note where more research and better practical
guidance is needed. We provide a blend of experienced practitioners and researchers as
presenters. Expertise on best practices and insight into key challenges in practical
implementation of reviews will be presented alongside several research studies on the sensitivity
review process. The session is co chaired by Neal Schmitt and Ann Marie Ryan, recognized
authorities on employee selection.

Our first presentation by Mort McPhail of Valtera Corporation will describe different
reasons for conducting sensitivity reviews – meeting legal, psychometric, and fairness objectives
– and how those might influences approaches to the review process. Dr. McPhail will then draw
on his experience in test development to discuss some of the practical challenges in formulating panels and conducting reviews.

Our second presentation, by Juliya Golubovich of Michigan State University will provide results of a survey of testing professionals regarding sensitivity review practices. Key findings regarding prototypical practices will be presented.

Our third presentation by Shonna Waters of HumRRO will provide an in-depth look at how a set of guidelines for conducting sensitivity reviews was developed and implemented by their organization.

Our final presentation by James Grand of Michigan State University will address the question of who is a good sensitivity reviewer, providing results of some experimental research on how individual characteristics affect whether a test item is seen as problematic.

Our discussant will be Wayne Camara of the College Board. Dr. Camara’s familiarity with some of the largest testing programs in the nation (i.e., the SAT, GRE) and the process of sensitivity review in educational admissions provides him with the expertise to comment on sensitivity review in employee assessment contexts.
Rationales for Conducting Item Sensitivity Reviews  
S. Morton McPhail  
Valtera Corporation

The concept of conducting detailed review of the content of test items is inherently a best practice in test development. The issue of “sensitivity” as a basis for such reviews arises uniquely when the targets of the review are aspects of items that may have specific relationship to subgroup membership, especially when those sub-groups are defined as protected under laws and regulations related to equal employment opportunity. In these cases, sensitivity reviews are intended to identify and eliminate or correct items that are in some way offensive, biased, unfair, or otherwise concerning to members of an identified subgroup. Note, however, that subgroup in terms of item review may not be constrained to the traditional “protected” subgroups.

There are a number of different (albeit in some cases overlapping) reasons for researchers, practitioners, and organizations to expend the time, resources, and effort to subject test items to careful and thorough sensitivity reviews. This presentation will discuss some of those reasons and identify differences in how the reviews might be conducted based on the underlying rationale or purpose.

Validation and Fairness Concerns. Efforts to improve the fairness of test measures underlie the classic rationale for conducting sensitivity reviews. To the extent that some content appearing in a test item is differentially available to or differentially difficult for some subgroup, it is presumed that the item is a less fair assessment of the underlying construct for that group. For example, asking questions intended to measure verbal reasoning set in the environment of college dormitory life may disadvantage those who have never had such experiences, even if the answer to the questions do not depend on having had those experiences. Thus, the validity of a
test cannot be separated from the content of the items which may introduce irrelevant and unintended demand characteristics not found in the target inferential environment (e.g., the job). (See, for example, Messick’s, 1989, Goldstein, Zedeck, & Schneider’s, 1993, and Stelly & Goldstein’s, 2007, discussions of content validity).

**Psychometric Concerns.** A related, but conceptually different, rationale rests on the argument that inclusion of distracting information or situations may introduce irrelevant variance. Reducing irrelevant variance would be expected to improve the psychometric properties of the overall measure, rendering it more appropriate as a predictor for all groups. Thus, seeking to eliminate items likely to demonstrate differential item functioning (DIF) across subgroups should improve the accuracy with which we can measure the underlying construct. However, some research that we have conducted suggests that reviewers are often unable to identify any manifest content in items that accounts for actual DIF.

**Legal Concerns.** Even if one were to conclude that there is little actual impact of item content on subgroup performance or test psychometrics, failure to conduct appropriate sensitivity reviews may be viewed by enforcement agencies as lacking a serious concern for test fairness. The very practice of conducting sensitivity reviews may be an argument supporting the integrity and fairness of a test.

**Perceptual Concerns.** There are many reasons why a test item may be viewed as irritating or disturbing to some individuals unrelated to differential difficulty or fairness with respect to subgroups. For example, mention of religious affiliation may be problematic for some individuals. Similarly, reference to sexual orientation, political affiliations, unions, prominent persons, or even athletic teams may activate emotional states that distract test takers’ attention from the constructs intended to be measured. One very specialized type of review asks native
speakers to review items for both intelligibility, commonality of interpretation, and irrelevancies when test items are translated into a language with a differing cultural context.

Item review panels may be constructed and managed in a variety of different ways. For each of the rationales noted above, the item review process may be somewhat different. Reviewers may be asked to focus on different categories of content or to provide ratings of different aspects of the item content. Different reviewers may be sought for different purposes. Indeed, the construction of review panels in a practical sense poses a number of problems. For example, would a panel intended to review for racial/ethnic bias be credible if it did not include members of the protected subgroups? But how many different groups must be represented and in what proportions to reach credibility?

While it is perhaps premature to speak of “best practices,” this presentation will discuss some more and less successful tactics and will identify some of the constraints that limit how such reviews may be conducted and the results used.
Sensitivity Review Practices

Juliya Golubovich, James Grand, Ann Marie Ryan, and Neal Schmitt

Michigan State University

While large scale testing programs and test publishers employ sensitivity reviews in test development, little information is available about who serves in the role of reviewer, what they do, and what guidance they are given. In this presentation, we describe the results of a survey to document practice in conducting sensitivity reviews in organizational psychology testing contexts.

Professional organization listservs, test publisher and consulting firm websites, and snowball sampling from those were used to generate a list of individuals who might be or who might know sensitivity reviewers. As there is no easy source of information on who is a reviewer, this technique was deemed necessary to identify this fairly select pool of people. An email explaining the purpose of our study and an invitation to participate in an anonymous online survey (if the individual had ever served as a sensitivity reviewer) was sent.

Survey questions asked about the nature of the review process and types of reviews provided, the nature of insensitivity typically encountered, and the background and training of reviewers. Respondents were also asked to provide sensitivity ratings for a set of verbal ability, logical reasoning, and math items (selected as having some degree of insensitivity) so that we could get “expert” agreement for items. Examples of items are provided in Table 1. Forty nine individuals responded to the survey. Of these, 16 were male, 27 were female, and 6 did not provide their gender. The ethnic breakdown was as follows: 37 Caucasian/White, 4 Hispanic, 2 Asian, 1 African American, and 5 unknown. We highlight some of the survey findings below.
Sensitivity reviewers have a variety of educational and professional backgrounds, but the majority has backgrounds in Industrial/Organizational psychology or psychometrics. Although gender, race, and culture may play a role, individuals’ professional background appears to be the most frequent reason for their being asked to review. Training for sensitivity reviews varies widely in length, content, and format. Some receive formal training, while others rely more on self-preparation. The majority of reviewers have some method of keeping up with developments relevant to their jobs as reviewers, including reading materials and talking to others who are knowledgeable in the field.

Job-related knowledge tests and cognitive ability tests are the two types of instruments most typically reviewed, but a large number of other instruments are subjected to the review process as well. The majority of reviewers follow a set of guidelines while performing reviews. Typically, they flag inappropriate items and suggest how these items may be improved. Whether they review individual items or complete tests tends to depend on the situation. There appears to be no typical approach when it comes to reviewing individually, as part of a panel, or individually followed by a group discussion. Accordingly, some individuals receive some form of feedback on their reviews, while others don’t. Among those who indicate monitoring their reviews for consistency, referencing some type of materials and checking over one’s work are the most typical approaches.

Vocabulary or item content a particular group may not be less familiar with, unbalanced number of referrals to men and women, grade-level inappropriate content, stereotypic portrayal of gender, race, culture, and age are sensitivity issues that reviewers deal with relatively frequently; offensive language, offensive content, problematic item format, and emotionally provocative content are problems that reviewers see relatively infrequently.
As Table 2 shows, the majority of the offensive language items included in the survey were rated as moderately to highly insensitive, indicating that these items tended to be the most blatantly problematic. On the other hand, the majority of items featuring unbalanced referrals to men and women, unfamiliar content, and unfamiliar vocabulary, were rated as not problematic to possibly insensitive, suggesting that these types of sensitivity issues tended to be more subtle or not consistently viewed as problematic.

Overall, our survey findings show wide variability in the practice of sensitivity reviews, and agreement regarding certain item aspects as insensitive but less agreement on others. Implications for sensitivity review practices will be discussed.
Table 1. Sample Items that Reviewers Rated on Sensitivity

<table>
<thead>
<tr>
<th>Item</th>
<th>Possible Type of Insensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bessie stood in the center of a cleared space in the square, holding out her hands _______, ________ at the cruelty of man written on her face, as the villagers moved in on her, armed with stones.</td>
<td>Emotionally Provocative</td>
</tr>
<tr>
<td>a. nervously, exasperation</td>
<td></td>
</tr>
<tr>
<td>b. steadily, fretfulness</td>
<td></td>
</tr>
<tr>
<td>c. desperately, incredulousness*</td>
<td></td>
</tr>
<tr>
<td>d. menacingly, horrified</td>
<td></td>
</tr>
<tr>
<td>e. helplessly, disenchantment</td>
<td></td>
</tr>
<tr>
<td>“Well, boys and girls, our customers are going next door to the competition—we’ll need to have our customer retention strategy rethunk,” Ed Smith addressed his elderly supervisees early Monday morning.</td>
<td>Offensive Language</td>
</tr>
<tr>
<td>a. we’ll need to have our customer retention strategy rethunk</td>
<td></td>
</tr>
<tr>
<td>b. we’ll need to rethink our customer retention strategy*</td>
<td></td>
</tr>
<tr>
<td>c. our customer retention strategy should be rethunk</td>
<td></td>
</tr>
<tr>
<td>d. we need rethinking for our customer retention strategy</td>
<td></td>
</tr>
<tr>
<td>e. our strategy is rethinking our customer retention</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Proportion of items in the moderate to high insensitivity category</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
</tr>
<tr>
<td>Emotionally provocative (10 items)</td>
<td>30.00%</td>
</tr>
<tr>
<td>Offensive content (6 items)</td>
<td>33.33%</td>
</tr>
<tr>
<td>Offensive content/emotionally provocative</td>
<td>100.00%</td>
</tr>
<tr>
<td>Offensive language (9 items)</td>
<td>77.78%</td>
</tr>
<tr>
<td>Stereotypic portrayal (7 items)</td>
<td>42.86%</td>
</tr>
<tr>
<td>Unbalanced referrals (7 items)</td>
<td>0.00%</td>
</tr>
<tr>
<td>Unfamiliar content (6 items)</td>
<td>16.67%</td>
</tr>
<tr>
<td>Unfamiliar content/emotionally provocative</td>
<td>100.00%</td>
</tr>
<tr>
<td>Unfamiliar vocabulary (7 items)</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Practical Considerations in Developing Sensitivity Review Guidelines

Shonna Waters

Human Resources Research Organization

The primary motivation of sensitivity review is to reduce or eliminate construct-irrelevant factors that might systematically disadvantage specified subgroups from the tests we produce. A test taker who encounters material that he perceives as offensive or controversial may become distracted or respond emotionally rather than logically (Guion, 1998). Unnecessarily complex or obscure language might disadvantage individuals with limited English proficiency by inhibiting their ability to comprehend the question. Construct-irrelevant content may decrease the extent to which the test is an accurate measure of a test taker’s standing on the construct of interest and thus has a direct relation to validity. This presentation focuses on procedures for developing sensitivity review guidelines and provides a description of the guidelines that HumRRO developed as a result of those procedures.

Sensitivity review guidelines provide guidance to practitioners and researchers conducting sensitivity reviews as a way of eliminating the construct-irrelevant material from items and tests. In the Standards, Standard 7.4, states that “test developers should strive to identify and eliminate language, symbols, words, phrases, and content that are generally regarded as offensive by members of racial, ethnic, gender, or other groups, except when judged necessary for adequate representation of the domain.” Guidelines are intended to establish a common understanding of the kind of content that might be perceived as offensive and may also establish standard procedures that should be followed in identifying such content. Ultimately, the identification of offensive material through procedures such as sensitivity review will rely on
judgment. The establishment of guidelines is thus extremely important to ensure some degree of consistency in the criteria that are used to eliminate content.

In developing sensitivity review guidelines, it is critical to thoroughly review professional standards related to test content. The academic and professional literature should be reviewed to identify the principles of sound test construction that should be followed and the features of an item or test that may be potentially problematic. We developed our guidelines based on a review of the procedures currently used for ASVAB item review and recent principles and standards for such reviews (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999; Educational Testing Service, 2003; Society of Industrial and Organizational Psychology, Inc., 2003; Ziecky, 2006).

One of the most difficult aspects of developing sensitivity review guidelines is determining the criteria to use to identify controversial or offensive content. For example, the elimination of offensive language is a common goal of sensitivity review. Identifying what language might be perceived as offensive, however, may be more art than science, in that terms that are offensive to one member of a group may not be offensive to another. We relied on guidance from the APA publication manual (APA, 2001) to distinguish currently acceptable terminology from terminology that has fallen out of favor (e.g., Hispanic American versus Chicano).

Before a sensitivity review, relevant subgroups should be defined and the test specifications should be reviewed. Each of the guidelines should be considered in the appropriate context. For example, while guidelines may caution against including material that might invoke an emotional response or be considered controversial, it would be appropriate to include the
topic of evolution in a biology exam. In contrast, such a topic could likely be avoided in a test of reading comprehension without adversely affecting the measurement of the construct of interest.

There is relatively little available in the literature regarding the mechanics of sensitivity reviews. In this presentation, we will outline a number of factors that should be considered in (a) developing sensitivity review guidelines and (b) conducting a sensitivity review. We will conclude by discussing the guidelines we developed for use in testing programs with our clients. Specifically, we will cover six guidelines: (a) avoid the use of stereotypes, (b) avoid ethnocentrism, (c) do not use language that may be differentially familiar to certain groups, (d) do not use language that is exclusionary, offensive, or unfamiliar to certain groups, (e) avoid using difficult words etc. that are not required to assess the construct being measured, and (f) visual stimuli should be required to measure the intended construct and should depict different groups equally, in a wide range of societal roles and contexts. Many of the principles found in sensitivity review guidelines overlap with or complement the kinds of issues that are typically included in an editorial review of test items. As such, we maintain that sensitivity review is best considered as part of the entire test development process.
Beyond Skin Deep: 
Investigating the “Who” of the Sensitivity Review 

James A. Grand 
Juliya Golubovich 
Ann Marie Ryan 
Neal Schmitt 
Michigan State University 

The primary goal of a sensitivity review is to remove stereotypic implications, insulting/derogatory language, and culturally unfamiliar terminology from questions presented on a test in an effort to make the assessment “socially balanced and even-handed” (p. 410, Camilli, 1993). Though considered part of the larger effort to minimize score discrepancies across subgroups (cf., Office for Minority Education, 1980), sensitivity reviews are distinct from efforts that target test performance issues. Specifically, whereas performance examinations are post hoc statistical procedures, the sensitivity review process is an expert judgment exercise that occurs prior to test administration with little to no associated psychometric data for reference (Ramsey, 1993).

This inherent subjectivity presents fertile ground for questions concerning the effectiveness of current sensitivity review practices. Although procedural guidelines for conducting sensitivity reviews are available (e.g., ACT, 2006; ETS, 2008), little else is offered in the way of guidance for test developers seeking to improve the effectiveness of their sensitivity review process. Of particular import is the issue of “who” should serve as a sensitivity reviewer.
The information sensitivity reviewers provide during the test development process can have significant influence on the appearance and functionality of a test, thus placing a great deal of responsibility on reviewers to be able to accurately identify “insensitivity” in test questions (Ramsey, 1993). However, little is known about what qualities describe more accurate and effective reviewers.

**Current Study**

The research that will be presented investigates one of the most common strategies used when constructing sensitivity review panels, the minority review (Camilli, 1993; Office for Minority Education, 1980). As the name implies, the minority review methodology employs members from minority subgroups as sensitivity reviewers for the purposes of ensuring that test content is inoffensive and culturally sensitive to minority respondents. The technique is so pervasive, in fact, that the most popular advice given to test developers when constructing sensitivity review panels is simply to ensure they consist of a “diverse group of individuals” (e.g., ACT, 2006). However, the validity of this methodology has not been sufficiently justified. The minority review methodology is largely based on conventional wisdom that implies a “demographically representative” expert is equipped to identify biased or offensive material merely as a result of his/her demographic profile. While it is empirically unclear whether this is true, there are likely a number of experiential or psychological characteristics that are more potent indicators of one’s proficiency as a sensitivity reviewer.

To test these presumptions, data were gathered in a controlled laboratory study designed to evaluate the model shown in Figure 1. Demographic and individual difference measures were
first gathered from student reviewers \( n = 301 \) who later performed a sensitivity review for a test containing both problematic and non-problematic items. Items for the review task were pulled from existing verbal and reading comprehension test sources and modified to be mostly devoid of sensitivity issues or possess some degree of inappropriate content based on categories of insensitivity gathered from published guidelines (e.g., ACT, 2006; see Table 1). After a brief tutorial on sensitivity reviews, the students provided sensitivity ratings (4-point scale ranging from *Highly Insensitive* to *Non-Problematic*) for all 108 items on the test.

**Analyses and Implications**

Preliminary analyses indicate that gender and race were not significantly related to the propensity to identify insensitive items. However, many of the measured psychological characteristics demonstrated unique—and sometimes unexpected—relationships with sensitivity detection and associated ratings. For example, those more highly conscious of ethnic stigmas or who strongly identified with their gender and ethnicity tended to be somewhat “hypersensitive,” or more likely to believe insensitive material existed even in non-problematic items. Conversely, more socially dominant and status legitimizing individuals reported in the opposite manner, tending to see even offensive and stereotypic items as less problematic.

A number of meaningful implications for practice can be drawn from the present results. The importance of more rigorously examining the characteristics (versus the demographics) of sensitivity review panelists in the selection process is highlighted as a means of improving the effectiveness of bias removal efforts. In this study, we identify psychological/experiential variables that have significant impact on the quality one might expect from the sensitivity review process; such variables could be used either as screens during initial reviewer selection or control
mechanisms for interpreting the recommendations of reviewers already selected. Additionally, identification of these variables also hold implications for the design of reviewer training practices, as instructional efforts can be directed towards aligning important perceptions in a manner that promotes more accurate test reviews.
### Table 1

Categories of insensitivity for tests and example items

<table>
<thead>
<tr>
<th>Category</th>
<th>Example item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Offensive content</strong></td>
<td>Which of the following options, if true, would not be a reason for the above stated trend?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Some whites, believing it's fashionable to be Indian, stretch the truth about their ancestry, claiming 'My grandmother was a Cherokee princess.'</td>
<td></td>
</tr>
<tr>
<td>b. American society's acceptance and admiration of the Indian heritage has declined.</td>
<td></td>
</tr>
<tr>
<td>c. When Indians marry non-Indians, their children can rightfully claim Indian ancestry.</td>
<td></td>
</tr>
<tr>
<td>d. The federal government guarantees members of tribes health care, financial aid for college, hunting and fishing rights, as well as special grants and loans.</td>
<td></td>
</tr>
</tbody>
</table>

| **Offensive language**                     | Some religious officials claim that the ancient Egyptians’ history of brutal violence, ritual sacrifices, and worship of non-Christian deities has contributed to the ________ of bloody genocide ravaging eastern Africa. |
|                                           |                                                                             |

| **Emotionally provocative content**        | Which of the following statements, if true, would support the claim above? |
|                                           |                                                                             |
| a. Many single women with children choose not to apply for welfare |
| b. The number of female-headed families is increasing steadily each year |
| c. According to a national survey, single, childless women choose not to have children because they lack monetary resources |
| d. Females who head households and receive welfare payments report that the payments are not adequate to support their children |

| **Gender/racial stereotypes**              | Grace Hopper should be an inspiration to female workers everywhere; (A) not only did she prove that a woman could be (B) highly successful in a field dominated by men, and (C) she was able to do so (D) without special treatment or excessive pleas for equality. No error (E). |
|                                           |                                                                             |

<p>| <strong>Unequal referrals to men and women</strong>    | The temperaments of both architects were markedly different; Kevin was reserved and courteous, Joe was ________ and boastful. |
|                                           |                                                                             |</p>
<table>
<thead>
<tr>
<th>Vocabulary unfamiliar to a group</th>
<th>In order to ________ a mortgage, an individual should periodically pay his or her lender principal and interest.</th>
</tr>
</thead>
</table>
|                                 | a. accrue  
|                                 | b. amortize  
|                                 | c. abscond  
|                                 | d. audit  
|                                 | e. augment  |

<table>
<thead>
<tr>
<th>Content unfamiliar to a group</th>
<th>In India, seeing an elephant when one is leaving for a journey is considered ________ because an elephant represents Lord Ganesha, the Indian God who ________ obstacles.</th>
</tr>
</thead>
</table>

| Non-problematic | The coach worked long and hard into the night for preparing the team’s strategy for the next game. |
Gender/Ethnic identification

Gender/Ethnicity

Detection of insensitivity

Stereotype-related Characteristics
- Stigma consciousness
  - Gender
  - Ethnicity
- Perceived attributions to prejudice
- Past experience with discrimination

Psychological Characteristics
- Cultural intelligence
  - Metacognitive
  - Cognitive
  - Motivational
  - Behavioral
- Perspective taking
- Empathic concern
- Social dominance
- Status legitimacy beliefs (social mobility)

H1
H2
H3
H4
H5
H6
References


[http://www.intestcom.org](http://www.intestcom.org)


