APPLYING GILBERT’S TELEONOMICS TO ENGINEER WORTHY PERFORMANCE IN GENERATION Y EMPLOYEES

Donald R. Hillman, DM

A performance management concern exists in the U.S. workforce regarding generational value differences that lead to conflict between four generations of workers: traditionalists, baby boomers, generation X, and generation Y. Generation Y is of particular importance to performance technologists as they are the youngest and currently largest generation, comprising approximately 80 million people. A model based on Gilbert’s teleonomic principles provides performance technologists with a template for examining the performance of generation Y employees.

AN INTERNET SEARCH on generational differences turns up nearly 1 million results. Limit the search using “in the workplace,” and the results are still in the 200,000 range. Over the past 10 to 15 years, thousands of articles in both the popular press and scholarly journals have highlighted the differences between baby boomer and generation X workers. Clearly there is a concern in our workforce regarding value differences between workers of different generations.

This article addresses management concerns relating to how workplace generational differences can affect organizational performance. Using a teleonomic perspective grounded in the work of Thomas Gilbert (1978), it presents a conceptual model that provides a performance management analysis process customized for generation Y employees.

GENERATIONAL DIFFERENCES AND PERFORMANCE MANAGEMENT

An underpinning of this article is that Gilbert (1978) would reason that conflict in the workplace between older and younger workers due to a generation gap falls into an assumptions category made by the behavior cult. Gilbert describes the behavior cult as management’s concern over employee behavior rather than employee accomplishment. Such a concern should lead managers to investigate and diagnose the problem much as they would in any other situation between workers experiencing conflict. But in many organizations that are experiencing multigenerational conflict, management often simply dismisses it as generational squabbling and ignores it or separates the offending employees. This may temporarily alleviate the conflict and the immediate situation, but is this what is best for organizational productivity?

According to Gilbert (1978), teleonomics is a system for studying, measuring, and engineering human competence from a results-oriented approach where behavior is considered a secondary concern. Both Gilbert (1978) and Mayr (1998) describe the root of the word teleonomics as being derived from the Greek word telos, meaning end or goal. Mayr suggests that teleonomics has roots in the natural sciences, but over the years, it has developed multiple meanings; now, essentially any phenomenon referred to as teleonomic is describing a movement or process to a determinable end (Mayr, 1998).
This article first reviews the literature on generational differences in the workforce. It then turns to how Gilbert’s (1978) principles of teleonomics, including his behavior engineering model (BEM), can aid in mitigating workplace generational conflict. Finally, it proposes a new model that integrates teleonomics for identifying and evaluating the potential for improving the workplace performance of generation Y employees.

In many organizations that are experiencing multigenerational conflict, management often simply dismisses it as generational squabbling and ignores it.

GENERATIONAL DIFFERENCES IN THE U.S. WORKPLACE
History and Background
Many books, the popular press, and the academic literature have reported on the current clash of generations in the U.S. workforce. Arsenault (2004) suggests that this clash is a result of the confluence of organizational structure and operating changes such as decentralization and increased technological capabilities. A number of researchers have found significant differences in work values and beliefs unique to each generation formed during the lifelong socialization process resulting in a shared perception by each cohort as to how the workplace should function (Arsenault, 2004; Carver & Candela, 2008; Twenge & Campbell, 2008). These workplace conflicts can create problems with organizational communication and employee productivity, resulting in losses for the company and for workers.

The theoretical basis for birth year cohort theory can be traced to its roots in sociology (Parry & Urwin, 2011; Smola & Sutton, 2002). This theory was developed in 1923 by Karl Mannheim in his seminal work, “The Problem of Generations” (Mannheim, 1952). Mannheim posits that individuals share a “social location” due to their year of birth and a bond through common experiences (Parry & Urwin, 2011).

Four Generations in the Current Workforce
Leiter, Price, and Spence-Laschinger (2010) have found a growing body of academic literature over the past decade that supports the notion of significant differences between four generations in the current workplace (see Table 1). Many authors (Arsenault, 2004; Carver & Candela, 2008; Leiter et al., 2010) identify these four generations as:
- Veterans or traditionalists, born between 1922 and 1945
- Baby boomers, born between 1946 and 1964
- Generation X, born between 1964 and 1980
- Generation Y or the millennials, born between 1980 and 2000

Organizational Performance Relating to Generational Conflict
In many organizations, these four generations are now working more closely together than workers in the past

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>U.S. WORKFORCE GENERATIONS AND WORK VALUES</th>
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<tbody>
<tr>
<td>GENERATION NAME</td>
<td>YEARS BORN</td>
</tr>
<tr>
<td>Traditionalists, veterans, silents</td>
<td>1922–1946</td>
</tr>
<tr>
<td>Baby boomers</td>
<td>1946–1964</td>
</tr>
<tr>
<td>Generation X</td>
<td>1964–1980</td>
</tr>
<tr>
<td>Generation Y, millennials, nexters</td>
<td>1980–2000</td>
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Leadership, communication, and education were common themes found in the generational-differences literature.

as the typical bureaucratic organizational structure has given way to a more horizontal formation (Arsenault, 2004). This structure change, along with increased technological and information capabilities, creates a working environment where the generations are constantly interacting, which often results in various sorts of conflict (Arsenault, 2004).

Carver and Candela (2008) suggest that generational conflict can result in communication problems and decreased commitment to the organization. Peck, Kendrick, and Brian (2011) define generational conflict as the outcome that often stems from when "one member applies the values of their cohort to another generation, and finds a disparity based on their defined standards" (p. 63). These conflicts result from differences in values, beliefs, attitudes, and career expectations (Leiter et al., 2010).

The literature also points to antecedents that shaped these belief systems for each generation. Although there is some discrepancy on the size of the generational cohorts in the workforce, most researchers agree that generation Y is now the largest, followed by the baby boomers and then generation X (Connell, McMinn, & Bell, 2012; Leiter et al., 2010). Members of generation Y are still entering the workforce, while the traditionalist generation has almost retired, and the baby boomers are in the early stages of retiring.

Importance to Management
Baby boomers are retiring rapidly, and as they do, younger-generation employees are assuming the jobs formerly held by their elder counterparts and managers. According to Twenge (2010), it has become critically important for workplace managers who are leading a multigenerational workforce with differing work values to understand how to recruit, retain, and motivate employees to ensure organizational performance standards are met. Smola and Sutton (2002) suggest as well that it is important for leaders to practice generationally appropriate management techniques for all employees in order to improve performance and avoid conflict. Twenge and Campbell (2008) found that significant differences exist between the generations in the workplace and that much of this is due to psychological differences such as self-esteem and a narcissistic outlook in younger generations.

Common Themes
Leadership, communication, and education were common themes found in the generational-differences literature. Much of the research suggests it is important for leaders to develop methods to supervise various genera-

USING TELERONOMICS TO ADDRESS WORKPLACE GENERATIONAL CONFLICT
Gilbert (1978) tells us that any performance can be measured. I examined the efforts of a financial institution a few years ago that was concerned with an increase in loan
payment delinquencies and assisted with improving its collections effort. (I have slightly altered this example to protect confidentiality.)

In this organization the loan portfolio was about $700 million. The average monthly delinquency rate based upon the 6 months prior to my intervention was 2.5%, and the average monthly collection rate during this period was 1.0%. This means that during each month, on average, over this 6-month period, collectors brought in $7 million out of the delinquent $17.5 million. This is a 40% collection rate, which of course also means that 60% of the delinquent accounts remained delinquent: $10.5 million remained in jeopardy of not being brought current, a tremendous loss risk for the financial institution. Many of these accounts would be charged off after a 6-month period of attempting to collect the debts.

The exemplary (or most productive) collection employee was found to produce at a 72% collection rate, which meant a potential for improving performance of 1.8, that is, 72% exemplar and 40% average collector. The value of correcting this potential for improving performance was calculated at $5.6 million per month, or over $67 million annually. The senior management set a goal of improving the collections department performance by 10%, seeking to raise the current performance from 40% to 50%. The training intervention was successful and met the targeted goals, resulting in a collection rate of 50% and an increase of $1.75 million per month of accounts brought current, adding to the original 1.0%, or $7 million, during the same measurable 6-month period, totaling $8.75 million per month. This represents a return of about 70 times the investment of $25,000 for training for just one month. Clearly, this training intervention was worthwhile.

The performance audit identified problem areas mostly in the BEM information cells pertaining to knowledge and data. Closer analysis showed that baby boomer managers were not providing clear instructions to the mostly generation Y staff (about 60% of the collection staff were members of generation Y). This was creating a learning gap in the use of the new software and collection procedures.

Training strategy suggestions included a combination approach based on generation membership. Some generation-specific strategies were classroom instruction, one-on-one mentoring by senior staff, on-the-job training, and a customized situational decision-making video-game-style program. The software instructional program was developed in conjunction with collections management and experts from the financial institution’s information technology department. The concept for this program was to provide a more user-friendly and self-paced learning environment for collections personnel. This type of generational-specific training includes learning by doing, trying things out, and receiving feedback through simulation. Exhibit 1 summarizes the example.

Having established that workplace conflict between the generations is costly, the most competent approach to addressing such a problem should establish what is needed to increase generation Y employee performance. This can be achieved by reducing the high potential for improving performance. Gilbert (1978) describes a teleonomic point of view as having no ideological commitment regarding special means or solutions.

USING THE BEM TO IMPROVE GENERATION Y EMPLOYEE PERFORMANCE

Applying Generation Y Employee Criteria to the Data and Knowledge Cells

The information cells of the BEM (see Table 2) call for a work environment that provides employees with clear instructions and expectations concerning performance. Managers who fail to provide this information relevant to performance outcomes commit what Gilbert (1978) refers to as the “telling error”: the manager tells the employee something that does not pertain to accomplishment related to performance. The work environment should also provide employees with frequent and relevant feedback relating to performance. Gilbert (1978) further suggests that the data cell is the first one that a performance technologist should examine when searching for solutions to employee performance. While Gilbert does not discount training, he suggests it should come after efforts to provide clear instruction, tools, and incentives.

This section of the BEM is perhaps the most important for improving generation Y performance based on the evidence in the literature. For example, Arsenault (2004) suggests that the learning styles of generation Y employees require a focus on digital literacy, immediate feedback, and a technologically based teaching strategy.

Many firms now spend more time with generation Y employees on their progress and feedback (Twenge & Campbell, 2008). Hershatter and Epstein (2010) support Russette et al. (2008) and Ferri-Reed (2010), who found that generation Y employees want clear direction and an organized structure to the work environment. Although many senior workplace leaders view generation Y workers as nearly ideal from the perspective that this generation values structure, authoritative direction, and company
goals, others see them as creating conflict within the company when plans do not go well. Ferri-Reed (2010) found that often generation Y employees quickly react negatively to corrective feedback and quit the company, thus creating a turnover problem. By reinforcing their value to the company and explaining how their contributions affect the production of the company, generation Y employees are less likely to become defensive.

Research indicates that employees and leaders are more effective if they understand generational differences (Arsenault, 2004). While the BEM knowledge cell calls for training pertinent to the accomplishment at hand, training in understanding the differences among all generations has been found to greatly improve workplace productivity and reduce conflict. It also increases group cohesiveness through heightened awareness and understanding among the generations (Arsenault, 2004; Ferri-Reed, 2010; Peck et al., 2011). Training workers of all ages on the differences between the generations is important.

The learning styles of the various generations may require instructors to provide multiple media such as virtual and traditional classrooms. Arsenault (2004) further suggests the use of multiple generational characteristics when developing leadership development programs to ensure that aspects from all generations are used when instructing new workplace leaders. Educating managers to avoid judgment of others based on generational perceptions through enhanced listening and questioning skills can circumvent potential conflicts (Arsenault, 2004).

Applying Generation Y Employee Criteria to the Instruments and Capacity Cells

The two cells in the BEM listed under instrumentation are instruments and capacity. Essentially the tools...
should match the abilities of the employees operating them and the employees must possess the capacity, physically and intellectually, to complete the required tasks of the job.

Generation Y employees are known as digital natives (Hershatter & Epstein, 2010). In fact, there is some evidence to support the notion that their brains are actually different from those of other generations. UCLA neuroscientist Gary Small conducted research on various generational cohorts and found a significant difference in technological skills functioning that he has labeled the “brain gap” (Hershatter & Epstein, 2010, p. 212). Generation Y brains were found to be more effective at multitasking, responding to visual stimulation, and filtering information. They are less effective at face-to-face communication and deciphering nonverbal cues.

Carver and Candela (2008) describe Generation Y as relying on technology and sometimes experiencing conflict with those of other generations who are unwilling to embrace communication through technology. The younger generations communicate more effectively using information technology such as mobile devices and social media. Hershatter and Epstein (2010) recommend using texting and visually appealing Web-based interfaces other than email to capitalize on generation Y employees’ technologically based communication style.

Deal, Altman, and Rogelberg (2010) describe Generation Y as having a considerably lower level of knowledge than previous generations regarding reading, math, history, and civics upon high school graduation. This may explain their need for training and education when entering the workforce. Ferri-Reed (2010) recommends career planning for Generation Y employees to give them a better understanding of how their efforts assist in company production and provide an incentive for them to climb the promotion ladder. Generation Y is very interested in cross-training and prefers to move laterally in an organization initially to gain valuable skills. These employees are more likely to stay longer with organizations that provide career development and educational opportunities (Hershatter & Epstein, 2010).

### Applying Generation Y Employee Criteria to the Motives and Incentives Cells

Gilbert (1978) suggests that the purpose of performance engineering is to increase human capital and recommends the use of incentives to increase worthy performance and reduce incompetence. The motivation cells in the BEM are critically important aspects in addressing

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<tr>
<th>INFORMATION</th>
<th>INSTRUMENTATION</th>
<th>MOTIVATION</th>
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<tr>
<td><strong>Environmental supports</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Data</strong></td>
<td>Instruments</td>
<td>Incentives</td>
</tr>
<tr>
<td>Relevant and frequent feedback about performance</td>
<td>Tools and materials of work designed scientifically to match human factors</td>
<td>Adequate financial incentives made contingent on performance</td>
</tr>
<tr>
<td>Descriptions of what is expected of performance</td>
<td></td>
<td>Nonmonetary incentives made available</td>
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<tr>
<td>Clear and relevant guides to adequate performance</td>
<td></td>
<td>Career development opportunities</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td>Capacity</td>
<td>Motives</td>
</tr>
<tr>
<td>Systematically designed training that matches the requirements of exemplary performance</td>
<td>Flexible scheduling of performance to match peak capacity</td>
<td>Assessment of people’s motives to work</td>
</tr>
<tr>
<td>Placement</td>
<td>Prosthesis (visual aids)</td>
<td>Recruitment of people to match the realities of the situation</td>
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</table>

generationally diverse incentives that are effective. Two cells in the BEM are listed under motivation: incentives and motives. Although Gilbert was not a big fan of the issues of motivation, he did recognize that this aspect of human competence must be addressed. Workers, he noted, must desire the incentives that are offered to them or their performance will fall.

Generation Y employees have been found to be loyal to organizations that provide professional development, mentoring, and advancement opportunities and have a sense of corporate social responsibility (Hershatter & Epstein, 2010). According to Hershatter and Epstein (2010), some companies have provided a telecommuting option to generation Y workers because it addresses their desire to be environmentally friendly, helps to satisfy work–life balance concerns, and takes advantage of the technological competence of these workers. Wilson et al. (2008) suggest offering more flexible scheduling, expansion of recognition programs, increased career development opportunities, and more decision-making autonomy to avoid the problems with low job satisfaction often found in generation Y.

**A MODEL FOR IMPROVING GENERATION Y PERFORMANCE USING GILBERT’S TELEONOMICS**

As baby boomers retire, generation Y employees will be assuming more important positions in the workforce, thus creating the potential for more conflict between them and other generations. The model in Figure 1 provides performance technologists with a template for examining deficiencies found in the performance output of generation Y employees. This model is based on the principles of teleonomics found in Gilbert’s BEM (1978) and is adapted for specific use for auditing the performance of generation Y employees.

The generation Y criteria found in the model were drawn from scholarly research. The model follows a simple process-oriented approach using the sequential steps that Gilbert (1978) suggests when applying the BEM.

Performance technologists should first identify a performance deficiency in a generation Y employee through measures appropriate to the particular workplace. Ideally, the use of some type of potential for improving performance measure with an exemplar in mind would be the
best method to conduct the pre- and post-measures in the model. The only way to measure the success of the interventions suggested in the model is to conduct a post-measure of the accomplishments of the employees.

ASSUMPTIONS AND LIMITATIONS
Research on generational differences in the workplace is plentiful but often lacks scholarly rigor. Arsenault (2004) and Deal et al. (2010) suggest that there is a lack of empirical research required to validate generational differences. Cross-sectional, longitudinal, and time-lag studies are the most common found in generational differences research. Most of these studies are cross-sectional and simply provide a snapshot at one point in time. This is not very effective in comparing the generations to one another, and thus findings in most of the research have been mixed (Parry & Urwin, 2011). More research using more valid longitudinal and time-lag studies is required. Many of the studies cited in this article are empirically based longitudinal or time-lag studies.

CONCLUSION
A performance management concern exists in the U.S. workforce regarding generational value differences that often leads to conflict among workers. Four generations of workers are currently clashing due to a confluence of organizational structure and technological changes over the past few decades. Generation Y is of particular importance to performance technologists and managers as they are starting to move into more responsible positions as baby boomers retire. Their performance is critical to the success of U.S. businesses. Any generational conflict that produces poor performance in generation Y employees can result in poor communication, higher turnover, and lower productivity.

Managers should adapt their leadership styles to fit the needs of generation Y employees and consider the importance of generationally specific communication and education. The example of a financial institution that was losing millions of dollars annually due to management's failure to address generation Y education and feedback needs highlights the need for the teleonomic-based model that has been presented to address such concerns. The model in Figure 1 provides performance technologists with a template for examining the accomplishments and deficiencies associated with generation Y employees. By measuring the outputs and comparing them with exemplary performance using the generation Y recommendations, performance technologists should be able to assist their clients in improving generation Y employee performance.

References


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DONALD R. HILLMAN, DM, a management consultant in job training program administration, employee performance, and human resources, has over 30 years of management experience in for-profit, nonprofit, and government work. This unique combination affords him the ability to assist businesses interested in expanding into these areas. He is an experienced public speaker and has worked with politicians and executives on employment and training projects. He has been responsible for the administration of tens of millions of dollars in annual budgets and has opened his own nonprofit multimillion dollar job training organization serving thousands of clients. His educational background includes an MS in human resources management, an MBA, and a doctor of management degree from the University of Maryland University College. He may be reached at HillmanOC@hotmail.com