



The Society of Cost Estimating and Analysis

The Dayton Coster Greater Dayton Chapter

Volume IV, Issue V

June 2009

2008 - 2009 DAYTON CHAPTER

SCEA BOARD

OFFICERS

ROSS JACKSON, Ph.D., PRESIDENT 257—4060
 TOM O'HARA, PRESIDENT-ELECT 656—5418
 DAMIAN GAINER, TREASURER 656—5471
 SCOTT BOYD, SECRETARY 257—4877

MEMBERSHIP

CANDY HENDRICKSON 255—8921

ELECTIONS/POLICY

CHARLIE KAPAKU 255—1595

AWARDS

LINDA TURNER 255—5655

PROGRAMS

DONNA GRAVELY 656—5506

EDUCATION

JEREMY MITCHELL 656—5500

PUBLICITY

TOM HARRIS 656—5463

CHARITY EVENTS

ERIC NARDI 656—5477

WAYS AND MEANS

VACANT

NEWSLETTER

AMY SMITH 656—9680

WEBSITE

KORTNEY TAYLOR 656—4236

MEMBER RELATIONS

CARRIE PLACE 255—8666

AFIT

LT COL ERIC UNGER, Ph. D. 255—3636 x7402

REGIONAL VP

LINDA TURNER 255—5655

President's Message: Ross Jackson



It is hard to imagine that our chapter year is ending. It was a great privilege and pleasure to serve as your chapter president. I hope that our board was able to provide you with thought-provoking articles in the newsletter and engaging speakers at the SCEA luncheons.

Our chapter is fortunate to have Mr. Tom O'Hara as our new chapter president.

Please be sure to congratulate Tom! Our society will benefit greatly from his leadership and technical skill.

This newsletter contains a wide variety of chapter information. Donna Gravelly's article explores the beta test of the new SCEA certification exam. Donna explains the new test and provides insight into the rationale behind the creation of a new certification exam. Eric Nardi rolls a strike in his article on Bowl For Kids Sake 2009. This event is one of the ways our local SCEA chapter makes a difference in our community.

Remember our local elections. This is a great way to participate in the leadership and direction of our local SCEA chapter. Please take part by voting in the elections. Also, please consider serving in an appointed

(continued on page 2)

Upcoming Chapter Events

SCEA Greater Dayton Chapter Board Elections 1-15 Jun 2009
 SCEA/ASMC Golf Outing 31 July 2009

<i>In This Issue</i>	
President's Message	1
Upcoming Chapter Events	1
Committee Updates	2
Lessons Learned/Best Practices	5

President's Message (continued)

position on the board. Your thoughts, energy, and abilities help make the chapter what it is.

Please email me at ross.jackson@wpafb.af.mil, or contact our newsletter editor Ms. Amy Smith at amy.smith4@wpafb.af.mil, with any ideas or recommendations you have to improve our local chapter.

COMMITTEE UPDATES

SCEA Greater Dayton Chapter Bowl for Kids' Sake

By
Eric Nardi

SCEA had another great turnout for Bowl for Kids' Sake 2009, which took place on Saturday, March 14. Poelking Lanes South was again the venue for this event. Aside from SCEA, numerous companies and other organizations participated. Five teams from SCEA bowled for a couple hours, shared some pizza, and enjoyed the company. Many thanks to those who took part and participated. We're looking forward to another great turnout for Bowl for Kids' Sake 2010.

John Allen
Shirley Ark
Jeremy Fulwiler
Mary Goubeaux

Brian Grissom
Derek Grissom
Rachel Grissom
Teresa Grissom

Sharon Jenkins
Cindy Laipple
Tony Meiser
Emily Mershon

Eric Nardi
Megan Nardi
Greg Nelson
Heather Phillips

Cheri Schaeffer
Paul Schaeffer
Jan Shaw
Don Sorrells
Ron Vorhis
Rich Williams



Shirley Ark, Jan Shaw, Deborah Matulka,
Greg Nelson, and Sharon Jenkins



Mary Goubeaux, Rich Williams, Paul Schaeffer, John
Allen, Ron Vorhis, Brian and Theresa Grissom,
Rachel Grissom, Cheri Schaeffer, Alaina Schaeffer,
and Derek Grissom

(continued on page 3)

SCEA Greater Dayton Chapter Bowl for Kids' Sake (Cont'd)



Riley Griffin, Cindy Laipple, Tony Meiser, Heather Phillips, Grace Phillips, Parker Mershon, Emily Mershon, and Hannah Mershon



Don Sorrells, Megan Nardi, Eric Nardi, and Jeremy Fulwiler

SCEA Greater Dayton Chapter Board Elections By Charlie Kapaku

Nominations for the 2009-2010 Greater Dayton Chapter SCEA Vice President/President Elect, Secretary and Treasurer were requested by COB, Friday, 29 May. Elections are slated to run 1-15 Jun. The term will be 1 Jul 2009 – 30 Jun 2010. If you have any questions, please contact Charlie Kapaku @ Charles.Kapaku@wpafb.af.mil. Best of luck to the nominees!

Joint SCEA/ASMC Golf Outing By Amy Smith

The Dayton chapters of SCEA and ASMC will hold their annual joint golf outing on 31 July 2009 at Twin Base Golf Course beginning at 0800. There will be plenty of great food and prizes. Early entry is encouraged as slots usually fill up fast.

Please contact Chris Shipman (AFRL/FMC, 986-9838), Tom Weideman (255-0450), or Jim Otte (PRICE Systems, 506-2463) for more information. This event always promises to be a great time!

SCEA Beta Test
By
Donna Gravely

On Monday, May 4th, 2009, 9 very brave souls walked into the Education and Training building after spending months preparing to sit for the Beta test version of the new SCEA certification test. The new test format was unveiled to those who volunteered to participate in the Beta test version of the exam. In return for their participation, the Beta testers were allowed to test for FREE and the tests will be graded on a curve.

The Beta test, in the making for several years with the help of experts from across the services, industry and higher learning, has been revamped to highlight the need for cost estimators to use judgment as well as estimating skills. The new SCEA slogan is Train, Attain, Sustain – Certification Matters! As described on the updated SCEA website, “SCEA's certification program means more than just demonstrating that one is able to get or keep a job; it provides a professional credential that sets the standard for the entire costing estimating and analysis community. It provides the foundation for professional cost careers and offers employers and individuals a means of distinguishing and achieving excellence. Ultimately, certification offers a stamp of approval of an individual's mastery of the basic and intermediate cost knowledge and consequently strengthens the individual's and their organization's ability to produce quality cost estimates and analyses.”

The new testing format allows for certification at 2 distinct levels – the Professional Cost Estimator/Analyst (PCE/A) for those people relatively new to cost estimating and the Certified Cost Estimator/Analyst (CCE/A) for those who have been around for a while. The first part of the exam covers foundational knowledge and practical application and lasts two hours. Part 2 of the new exam focuses on advanced analysis and includes a case study and related questions to be completed within 3 hours. The SCEA beta testers were thankful for the lunch break between the two testing sessions, with one tester commenting "After everyone finished part I, we were all standing around wondering what else could the exam possibly test on part II?".

Everyone survived taking the new test but they sure did look exhausted when they turned them in. Some people found that the new test was a lot more comprehensive than they thought it would be and others felt it was exactly what they were expecting. The reviews on how to prepare for the exam were also mixed – some people liked the new CEBoK training material, others did not. The SCEA website suggests that potential testers review the many sources which are available as training aids – including textbooks, handbooks, conferences and training sessions. Experience in multiple aspects of cost estimating and analysis is especially helpful.

To those who graciously subjected themselves to this tortuous event, many thanks for your participation and best wishes on passing the exam.

LESSONS LEARNED/BEST PRACTICES

When the estimate is not as expected: A critical analysis of an epistemological dilemma

By
Ross Jackson

Introduction

Cost estimating teams commonly spend months of effort constructing life cycle cost estimates. In fact, anecdotal evidence suggests cost-estimating teams are spending an increasing amount of time constructing their estimates. After all this time and effort creating an estimate based on specific information related to a given program one often crosschecks the estimated result to a heuristic. The intent of this article is to delve into the nature of this comparison to understand better an epistemological dilemma that is more apparent when a gap exists between an estimate and a heuristic-based crosscheck. However, once an estimator is able to see the dilemma in the gap, it is a short progression to see the dilemma remains even when the gap disappears. Stated somewhat differently, the epistemological concern exists even when the heuristic is consistent with the estimated value.

To address this concern adequately it is necessary to develop a minimally sufficient shared context. Given the centrality of heuristics to this inquiry, it is likely beneficial to sketch the contours of this concept in the hopes of developing a common understanding. Following the development of heuristic-based knowledge is an analysis of the situation where a gap emerges between the estimate and the crosscheck value. Because disconfirming information is associated with cognitive dissonance, it is helpful to highlight some of the more salient aspects of this psychological concept as they relate to the performance of cost analysis. Once developed, one can use the presence or absence of cognitive dissonance as a fulcrum point to assess aspects of the epistemological dilemma more deeply. Some potential approaches for functioning in the ambiguity of this situation are presented along with a brief conclusion.

Heuristic-Based Knowledge

Heuristics are mental shortcuts used to help individuals deal with complex realities in a more efficient fashion. Colloquially, heuristics are rules-of-thumb. Heuristic-based knowledge is a type of knowledge based on information that is generally accurate over many observations. In this way, heuristics are an average of sorts. Heuristics are prevalent in business research and have been applied to areas including bias in decision-making (Rojot, 2008), ecological rationality (Sadler-Smith & Sparrow, 2008), simplification of decision-making (Royer & Langley, 2008), and sensemaking (Balogun, Pye & Hodgkinson, 2008). While heuristic-based knowledge is useful, it is possible this type of understanding produces negative consequences as well. One such negative consequence is the possibility for individuals to view the heuristic as a universally applicable truth. Under such a view, it is possible for decision makers to misapply heuristics or to misunderstand the inherent limits of general knowledge. Heuristics are only as good as the information used to create them.

It is interesting to understand the pedigree behind heuristics. In cost estimating in particular, one often confronts heuristic-based knowledge seemingly based neither on published research nor on direct personal experience. Rather, a senior leader often presents the heuristic to the neophyte estimator during the estimate review briefing. A few notional examples of cost estimating heuristics could include: (a) risk-inclusive estimates for development programs should include at least X% more than the point estimate, (b) the coefficient of variation should be around Y, (c) the learning curve for production should be Z%, etc.

When using heuristics as crosschecks for detailed cost estimates the hope is the crosscheck value is reasonably close to the estimate. In such a situation, it is interesting to ponder how one (individually or collectively) determines how

(continued on page 6)

When the estimate is not as expected: A critical analysis of an epistemological dilemma (Cont'd)

close is close enough, and whether this determination is itself heuristic-based. Leaving this thread dangling for a moment longer, the more pressing point for the analysis developed here is to understand what occurs when the heuristic-based knowledge does not support the more detailed estimated value. In this situation, a gap emerges between the estimate and what one would expect based on one's heuristic-based knowledge. A more fully developed treatment of this topic is in the following section.

A Gap Emerges

As previously mentioned, a gap emerges when the heuristic fails to support the estimated value. In such a situation, there are several ways to interpret the disconnect. Depending upon one's interpretation, different courses of action appear to be more or less appropriate. A few possible interpretations are: (a) the heuristic is "correct" and the estimate is "wrong", (b) the estimate is correct and the heuristic, while generally accurate, is not applicable in this particular case, (c) both the heuristic and the estimate are flawed in some way. Using these non-exhaustive constructions as a means to analyze the cost-estimating situation should help to illuminate how this gap potentially leads to a form of cognitive dissonance. The situation where the heuristic is considered correct, and the estimate is considered wrong is addressed first. This interpretation is first because it appears to be the dominant interpretation in cost estimate reviews.

When a gap emerges between the estimate and the crosscheck, one often gives the heuristic more importance due to interpreting this generalized knowledge as the correct value. In some respects, this makes sense. However, in one particular sense, this is a somewhat odd interpretation. Such an interpretation reveals valuing the heuristic more despite the estimate's basis on more detailed knowledge of a specific program. Interestingly, this actually could be the case. However, if it is the case, simply stringing together a patchwork of heuristics-based values is a more efficient way to estimate. Often, given this interpretation, the cost estimator either updates the estimated value, or conducts further research to explain why the estimated value is different from the heuristic. Neither of these actions is inherently misguided. It is simply worth noting the intent behind the action.

Interpreting the gap as a situation where the estimate is correct and the heuristic is of limited use is somewhat less prevalent in estimate reviews. Such an interpretation is consistent with the proportion of work given to the development of the cost estimate. However, it is interesting to tug a little at this interpretation to understand it better. The rationale for the heuristic is to provide support for the estimate. If a gap emerges, how does one conclude the estimate is correct without a heuristic-based crosscheck? In some respects, if one is able to come to this interpretation when there is a gap between the estimate and the heuristic then the crosscheck was not necessary in the first place. This situation could help explain why the first interpretation is more prevalent in estimate reviews.

The last type of gap developed in this paper focuses attention on the interpretation that both the estimate and the heuristic are flawed. This situation is somewhat different from the previous interpretation due to the change of view on the heuristic. There is an important distinction between viewing the heuristic as generally useful but inappropriate in a particular context, and viewing the heuristic as flawed. Again, it is difficult to imagine what type of information in the estimate itself could help a group of people come to this conclusion. Since the heuristic is often simply a statement made by senior-level participants, there is nothing tangible to critique. Further, the power differential often present between the senior leader presenting the heuristic and the cost estimator defending the estimate is pronounced enough that it is politically awkward to critique the pedigree of the crosscheck. In some respects, these factors combine to insulate the heuristic from penetrating analysis and provide it a privileged status in the discussion. The dynamics of power and information make it difficult for the estimate to compete directly with the heuristic. This situation could lead to more rework and delay than is necessary.

Independent of the interpretation of the gap, the disconnect between the estimated value and the heuristic produces a largely unpleasant psychological situation for the participants. This type of situation is a form of cognitive

(continued on page 7)

When the estimate is not as expected: A critical analysis of an epistemological dilemma (Cont'd)

dissonance. A brief treatment of cognitive dissonance in the following section will help explain some of the psychological dimensions behind the observable push to resolve the conflict in information.

Cognitive Dissonance

Cognitive dissonance is the name used in psychology to label the uncomfortable situation where one's mind is simultaneously containing contradictory pieces of information. In perhaps overly simplistic terms, the mind does not tend to like internal conflict. More positively, the mind exhibits a preference towards harmony. As such, when one deals with conflicting information one often undertakes the difficult task of reconciling the disconnect. In psychology, the focus is often on much more pronounced and consequential existential concerns. Cognitive dissonance has been applied to diverse topics like criminal activity (Crump, 2008), eating disorders (Stice, Marti, Shaw & O'Neil, 2008), and self-deception and motivated reasoning (Scott-Kakures, 2009) to name just a few examples. The cost estimating process contains a slightly more mundane version of cognitive dissonance.

In the cost estimating environment, when the heuristic fails to support the estimate a potential exists for cognitive dissonance to emerge in the gap between these two irreconcilable values. As stated in the previous section there is a pronounced preference for giving primacy to the heuristic and subordinating the estimate. Perhaps for the senior leader this can be understood psychologically as a situation where one's longer-held views (i.e., the heuristic) are provided more weight than novel information (i.e., the estimate), even if the new information is more concrete. For the estimator, it is possible for primacy to be given to the product of one's labor (i.e., the estimate), at the expense of conventional wisdom (i.e., the heuristic). In either event, this process is complicated because in the cost estimating environment the reconciliation process is not an individual matter. Instead, one socially negotiates the reconciliation. This mediated experience likely impacts people differently depending upon their positions and proximity to the estimate. In other words, people might develop quite different responses to the reconciled position, and this could produce certain types of benign anguish. By pursuing the psychological drive toward harmony too quickly, one is apt to neglect certain opportunities.

While psychologically there are many benefits associated with resolving cognitive dissonance, pragmatically, there is something gained by confronting opposing and irreconcilable information. Most notably, such a situation is conducive for the painful task of thinking. In this way, when the heuristic-based crosscheck is congruent with the estimate there is a pronounced lack of cognitive dissonance with the potential for a corresponding lack of conscious thought. By closing-off a path toward deeper analytic thought, it is possible one overlooks relevant discussion topics. The impact of these omitted conversations is difficult to measure, but not necessarily inconsequential.

Rather than revealing a situation where the estimate is correct, it is certainly possible the estimate and the crosscheck could be similarly wrong. In fact, seasoned analysts are often aware of the conventional crosschecks and could develop the estimate to be consistent with these heuristic values. When the two values are similar enough¹ for estimating purposes, the lack of cognitive dissonance might preclude the analysis of the underlying epistemological concern. A quick trace of this dilemma is in the following section.

¹The concepts "similar enough" and "sufficiently close" are admittedly vague. While there is no inherently correct way to define these concepts, how one sets the parameters around these terms influences the degree of confidence one ultimately has in the estimate. Interestingly, the determination as to what these terms mean is itself heuristic-based. Further studies could explore how organizations come to define these terms and what consequences emerge from the various constructions of proximity. It is sufficient for the purpose of this study simply to note that participants make such determinations during the review process.

When the estimate is not as expected: A critical analysis of an epistemological dilemma (Cont'd)

Epistemological Dilemma

At its core, the gap between the estimate and the cognitive dissonance producing heuristic forms the nexus of an epistemological dilemma. Specifically, how do we know which value (if any) is correct? Stated somewhat differently, the epistemological dilemma is concerned with a deeper understanding of how we come to understand what it is we think we know. In order to resolve the cognitive dissonance, one is compelled to make some determination as to the relative strength of the estimate and the heuristic. As mentioned previously, for several reasons the potential exists for a profound preference of the heuristic. This dilemma stands in more striking relief when there is a gap between the estimate and the heuristic.

When the estimate and the heuristic are not sufficiently close¹, one makes some determination as to what this disconnect means. This determination carries with it implications for the quality of the estimate, the value of senior-leader knowledge, and the amount of additional work required. As such, the conversations about the estimate and heuristic are not only (or necessarily primarily) about the two values. Rather, it is possible that within the subtext of this discussion rests a battle among various opposing camps each vying for relative prestige and dominance. From the estimator's perspective, it would seem obvious that a detailed estimate based on specific programmatic information would be superior to some questionable heuristic. Senior leaders have a wealth of experience, and heuristic-based knowledge is precisely what this group brings to the discussion. The value placed on this perspective is certainly observable in the bureaucratic hierarchy and the structure of the review process itself. Again, if the heuristic was so strong, and the estimate redone to correspond more closely to the heuristic, one is left wondering why we do not streamline the estimating process and simply use the heuristic. Which position is selected (e.g., estimate, heuristic, reworked hybrid, etc.) is interesting but beyond the point of this study. The key issue here is not what value one ultimately selects, but how those making the decision come to select a given position. This same process plays out in a more hidden fashion even when no gap exists between the estimate and heuristic.

While more readily observable when the two types of values are in conflict the same epistemological dilemma exists when the two values are similar. This is more difficult to see, but in some respects more interesting because it pulls a little more playfully at the loose threads of human knowledge and understanding. It is certainly plausible for correspondence between the estimate and the heuristic to change the probability of the estimated value being correct. This view appears to be what lurks behind the current actions taking place in cost estimate reviews. It is uncertain, however, by what degree this probability shifts. Further, as already mentioned, since these heuristics are largely static (due in part to the general lack of an empirical basis and the socially constructed transmission process) it is possible the correspondence is the result of a type of game on the part of the estimator. The analyst could be selecting data to produce an estimated result consistent with the heuristic.

Since we do not know if the estimate is correct, one is looking for information to add some degree of support to the estimated value. This search likely entails a pronounced confirmation bias. In this way, one collects crosschecks with the intent to support an estimated value. Therefore, while a presented crosscheck value suggests the estimated value is correct there may be many unreported values that would place the validity of the estimate in doubt. Determining how many crosschecks are sufficient, and what type of crosschecks are sufficiently robust for comparison, is actually yet another heuristic-based position. To my knowledge, there is no empirical study to show one crosscheck is sufficient, or three crosschecks are significantly better than two, etc.

Since disconfirming values produce cognitive dissonance and even confirming values produce an epistemological gap, one ultimately needs to determine a course of action for dealing with the irresolvable ambiguity of the estimating environment. Some provisionally developed approaches are in the following section.

(continued on page 9)

When the estimate is not as expected: A critical analysis of an epistemological dilemma (Cont'd)

Approaches for Functioning in the Ambiguity

Like so many philosophical questions, the answer is not so much a definitive position as much as it is a string of new and even more complicated questions. The way one goes about resolving the situation reveals something of one's gestalt. In this particular epistemological quandary, the cost estimating community has at least three courses of action available for dealing with the ambiguity surrounding the limits of human knowledge regarding future events. The first course of action is the approach currently used. The second course of action is the reversal of the traditional approach. Lastly, a more radical approach is presented consistent with the epistemological view contained in hypothesis testing. These three courses of action are certainly nonexhaustive, and each has certain desirable attributes and limitations.

As noted a couple of times, the interlocutors often give the heuristic at least enough importance to call the validity of the estimate in to doubt. Sometimes this results in a quick substitution of the estimated value for the heuristic-based value. More often, the estimator is directed to conduct further study into the nature of this disconnect, and come back with an explanation and revised position. While this certainly seems reasonable enough, it is worth noting again, the pedigree of the heuristic is often ill defined. As such, the estimator is constrained by a lack of detailed information regarding the heuristic. As far as end results, many times the new value will be somewhere between the original estimate and the heuristic. There is nothing inherently wrong with this approach. However, given the status of the results generated through our current cost estimating process, one should have some cause for concern. Assuming the status quo is producing results that leave something desired, the bureaucratic tendency is to replace the status quo with its symmetrical opposite (Jackson, 2007).

When confronted with two clear choices and a situation leaving something desired, it is understandable one would be compelled to shift from one alternative to the other. In this particular case, one could replace the preference for the heuristic with a preference for the estimate. Such a reversal only superficially breaks with the status quo, as the action maintains both the underlying epistemological view and the two main forms of knowledge. In other words, this is a change, but only a change within a given context and not a change of the context itself. More importantly, such a change does not in any way change the locus of conversation. Consequently, there is little hope this movement will produce fundamentally new forms of discourse, understanding, or options. To obtain these benefits one must not only change the preference but the conversation as well.

A more radical (from the Latin for root – and not in its more conventional pejorative form) departure from the status quo and its reversed correlate is possible and is more central to the analytic approach to knowledge and adjudication between alternatives. In hypothesis testing, one makes conscious decisions in light of Type I and Type II errors. One could erroneously reject a valid position (Type I error), or one could fail to reject a false position (Type II error). In determining the significance level of the test, the analyst is actively selecting the rate of Type I error, and influencing the rate of Type II error. This selection process should be informed by the types of consequences associated with making Type I and II errors. One could apply this same approach (at least conceptually) to the estimate and heuristic concern. What is the consequence of using a flawed heuristic? What is the consequence of using a flawed estimate? Prior to implementing this approach, the process would benefit from further development and eventual refinement in to an actual methodology. This would mark a useful extension of this study.

In reframing this issue in slightly more analytic terms, one is able to direct increased attention to several key aspects. First, at the point-in-time of the review, one does not know which value (if any) is correct. Second, the two types of values come from different contexts and contain very different types of knowledge. Third, the types of consequences associated with errors of these two types of knowledge may affect the organization in very different ways. By understanding these issues, there is a chance for estimators and senior leaders to form a more reasoned position. A brief conclusion summarizes some of the key aspects of this paper.

(continued on page 10)

When the estimate is not as expected: A critical analysis of an epistemological dilemma (Cont'd)

Conclusion

The main concern addressed in this paper was the epistemological dilemma associated with cost estimates and heuristics. This issue is more apparent when the estimate and the heuristic do not reflect similar cost positions. In addressing these concerns, several supporting concepts were briefly developed. First, some basics of heuristic-based knowledge were presented to provide a shared basis of understanding of this pivotal concept. Next, a metaphorical wedge was driven between the estimate and heuristic to demonstrate a situation in which a gap emerges between these two types of understanding. Because disparate views are psychologically difficult to maintain, the concept of cognitive dissonance helped in explaining why there is pressure for resolution. The epistemological dilemma was then developed looking first at the case where a gap exists, and second at the case where no gap exists but the dilemma remains. Lastly, some potential approaches for dealing with the ambiguity of the epistemological gap were presented to help better cope with this largely ignored issue.

Ironically, and perchance humorously, after a great deal of effort, study, analysis, comparison, and discussion with experts, the simple fact remains we do not really know if the estimate is correct. Further, this epistemological situation is little changed by the degree of similarity between the estimate and its heuristic-based crosscheck. Before too much despair sets in, it is worth noting the picture is not entirely cold and bleak. Knowing what one does not know forms the core of a special kind of knowledge. With this understanding one is free to shift the locus of conversation away from the potential disconnect between the estimate and heuristic and toward the types of errors and consequences associated with privileging one position over the other. Since what we talk about simultaneously reveals what we are silent about, this shift in focus creates a space for deeper analytic discussions.

Ross A. Jackson is the chief operations research analyst for acquisition in Headquarters Air Force Materiel Command, Studies and Analyses Division. He currently serves as President of the Dayton Chapter of the Society of Cost Estimating and Analysis (SCEA), and holds the economics and quantitative analysis Area Chair position at the University of Phoenix, Cincinnati Campus. He obtained his Ph.D. in applied management and decision sciences from Walden University. He holds professional cost estimating certifications from SCEA and ISPA. His current research interests deal with the application of Critical Management Studies approaches to cost estimating, and the application of communication theory to understand how cost estimates as texts are potentially misunderstood, co-opted, and distorted as estimates progress through organizational hierarchies.

REFERENCES

- Balogun, J., Pye, A., & Hodgkinson, G. P. (2008). Cognitively skilled organizational decision making: Making sense of deciding. In G. P. Hodgkinson and W. H. Starbuck (Eds.), *The Oxford Handbook of Organizational Decision Making* (pp. 233-249). Oxford: Oxford University Press.
- Crump, D. (2008). The Social Psychology of Evil: Can the Law Prevent Groups From Making Good People Go Bad?. *Brigham Young University Law Review*, 2008(5), 1441-1464.
- Jackson, C. B. (2007). *Knowledge capture report*. Unpublished manuscript, Aeronautical Systems Center.
- Rojot, J. (2008). Culture and decision making. In G. P. Hodgkinson and W. H. Starbuck (Eds.), *The Oxford Handbook of Organizational Decision Making* (pp. 134-151). Oxford: Oxford University Press.
- Royer, I., & Langley, A. (2008). Linking rationality, politics, and routines in organizational decision making. In G. P. Hodgkinson and W. H. Starbuck (Eds.), *The Oxford Handbook of Organizational Decision Making* (pp. 250-270). Oxford: Oxford University Press.

(continued on page 11)

When the estimate is not as expected: A critical analysis of an epistemological dilemma (Cont'd)

REFERENCES (Continued)

- Sadler-Smith, E., & Sparrow, P. R. (2008). Intuition in organizational decision making. In G. P. Hodgkinson and W. H. Starbuck (Eds.), *The Oxford Handbook of Organizational Decision Making* (pp. 305-324). Oxford: Oxford University Press.
- Scott-Kakures, D. (2009). Unsettling Questions: Cognitive Dissonance in Self-Deception. *Social Theory & Practice*, 35(1), 73-106.
- Stice, E., Marti, N., Shaw, H., & O'Neil, K. (2008). General and program-specific moderators of two eating disorder prevention programs. *International Journal of Eating Disorders*, 41(7), 611-617.

IMMEDIATE OPENINGS FOR EXCEPTIONAL APPLICANTS

MCR, LLC is recruiting top quality personnel in all Acquisition and Financial disciplines for interesting, challenging positions supporting a variety of staff and program offices at Wright-Patterson AFB.

Financial Managers • Cost Estimators EVM Specialists • Schedule Risk Analysis Business Case Analysis

Program Office Experience in Financial Management/Program Management (including Foreign Military Sales), Contract Buyer Support, and Cost Estimating highly desirable.

Knowledge of Federal Government Acquisition Processes/Environment, DOD, and Air Force Acquisition Directives and Instructions. Must be eligible for a DOD security clearance. A minimum of 7 years of Defense Acquisition experience is required.

We offer competitive wages and a very attractive benefits package.

***DON'T MISS THIS OPPORTUNITY TO JOIN
THE MCR TEAM!***

Apply today at:
www.mcric.com



Critical Thinking. Solutions Delivered.

MCR, LLC
4027 Col. Glenn Hwy. • Suite 300
Beavercreek, OH 45431
Fax: 937-427-9665
EOE/M/F/D/V



The Society of Cost Estimating and Analysis

The Dayton Coster Greater Dayton Chapter

If you have comments, ideas, or are interested in contributing an article to "The Dayton Coster", please direct them to Amy Smith at Amy.Smith4@wpafb.af.mil.