

PSYC 233 ~ Evolutionary Psychology

The University of Scranton, Spring 2012

Barry X. Kuhle, Ph.D.

Monday, Wednesday, & Friday: 2:00 - 2:50

Alumni Memorial Hall 211

I incorporated sustainability into PSYC 233 ~ Evolutionary Psychology by having my students read Dr. Todd Shackelford's (2006) article on "Recycling, evolution, and the structure of human personality" that was published in the peer-reviewed journal *Personality and Individual Differences*. I also emphasized that 99% of all species that have ever existed are now extinct, and that we, too, will likely follow suit (along with millions of other species) should we continue with our non-sustainable lifestyle. The course syllabus is attached.

Professor Information

Office: Alumni Memorial Hall 222

Office Hours: Mondays and Wednesdays 1:00 – 1:50; Fridays 3:00 – 4:15; and by appointment for other times that are more convenient for you. When possible, please email and let me know when you'll be attending an office hour so that I can schedule other students around your appointment time. You're welcome to meet with me to discuss class, what graduate school is like, what one can do with a psychology degree, etc...

Email: BarryKuhle@gmail.com (Be sure to specify which class you're in!)

Office Telephone: (570) 941-5459

Teaching Assistant Information

Name: Ms. Jessica D. Rogan (jessica.rogan@scranton.edu)

Brief Autobiography

I was born and raised on Long Island, NY. After receiving my B.A. in psychology from Binghamton University, I headed west to study evolutionary psychology at The University of Texas at Austin. My research focuses on the evolved psychological mechanisms that underlie commitment and jealousy in romantic relationships. I am also interested in the evolution and development of menopause.

As for non-academic life, I enjoy racquetball, basketball, golf, and poker. I'm also a huge movie buff (P.T. Anderson, Aronofsky, Fincher, Linklater, K. Smith, Tarrantino) and music fanatic (U2, Radiohead, Counting Crows, Bob Schneider, Dave Matthews Band, Indigo Girls, Coldplay, The Killers, Lady Gaga, Jay-Z, Kanye West).

Evolutionary Psychology Course Description and Objectives

This is a 3-credit introductory course aimed at undergraduates with little or no experience with this discipline. Evolutionary psychology is the scientific study of human nature dedicated to discovering and understanding the psychological adaptations that evolved to solve ancestral survival and reproductive problems. We begin with a brief historical review of key themes in psychology and evolutionary biology. We then explore the adaptive problems of and evolved solutions to survival, long-term mating, short-term mating, parenting, kinship, cooperation, aggression and warfare, conflict between the sexes, status, prestige, and social dominance.

Successful completion of this course will enable you to (a) comprehend Charles Darwin's theories of natural and sexual selection, (b) understand the major methods, theories, and findings in evolutionary

psychology, (c) employ a Darwinian “gene’s eye” view of the natural world and its myriad wonders, and (d) to apply that knowledge to your everyday life. Whatever your major, interests in psychology, and career goals, evolutionary psychology will prove interesting, useful, and thought-provoking. *Knowledge of why your mind works the way it does will best allow you to use it to tackle the myriad obstacles that life throws at you!*

Prerequisite

A passing grade in PSYC 110 (Fundamentals of Psychology) is a prerequisite for this course.

Required Books

Buss, D. M. (2012). *Evolutionary psychology: The new science of the mind (4th edition)*. Boston, MA: Pearson.

- David Buss is a founding father of the field and authored the first textbook for it. Even after thirteen years and the debut of at least a dozen other texts, Buss’s text, now in its fourth edition, is still the most clear, comprehensive, and engaging textbook available.
- Costs \$137.95 (\$103 used; \$68.56 to digitally rent) from the campus bookstore (ISBN: 9780205015627)

Dawkins, R. (2006). *The blind watchmaker (20th anniversary edition)*. New York, NY: Norton.

- Richard Dawkins is one of the top three science writers alive. His clarity of thought and expression are second to none. This book will serve to expand upon the intricacies and to unravel the myriad complexities inherent in Darwin’s 1859 theory of natural selection.
- Costs \$17.95 (\$13.50 used; \$8.97 to digitally rent) from the campus bookstore (ISBN: 978-0-393-31570-7)

Teaching Philosophy

I take great pride in a teacher’s responsibility to foster student learning. I strive to pique student interest by setting high standards and using engaging teaching methods. My role as a teacher is to foster critical, creative thinking, and intellectual risk-taking. Your role as a student is to work hard and HAVE FUN with this class. I encourage you to ask questions, interject humorous anecdotes, and seek clarification as needed. I most enjoy teaching psychology and want you to most enjoy learning it. ACTIVELY PARTICIPATE, PLEASE!!!

Attendance

Attendance is required for this course. It is *your responsibility* to sign the daily attendance sheet (signing for others is a violation of the University Academic Honesty Policy). Missed exams and quizzes cannot be made up, and missed notes cannot be borrowed from me, so you must COME TO EACH AND EVERY CLASS! Much of the material covered in lecture is not in the textbook, and will be included on exams. Failure to attend at least 75% of all class sessions results in an automatic “F” for the course. If you miss class you are responsible for contacting a classmate (not me) about any class content and announcements given in your absence.

If I miss class I should contact _____

If I miss class I should contact _____

If I miss class I should contact _____

Electronic Communication

I’ll be using *Angel* to post grades, PowerPoint slides, and Word documents, and to email you. You are **REQUIRED** to access *Angel* and to regularly retrieve the emails I send to your *Angel* account. When my

PowerPoint slides for each class are finalized (probably the night before each class), I'll email you so that you can download and bring them to class on two-sided paper with six slides per side (under "handouts," select "6-sides horizontal").

Special Needs & Accommodations

I am available to discuss academic accommodations that are recommended for students with disabilities. In order to receive appropriate accommodations, students with disabilities must register with the Center for Teaching and Learning Excellence and provide relevant documentation by contacting Mary Ellen Pichiarello (941-4039) or Jim Muniz (941-4218) for an appointment. Requests for academic accommodations are to be made during the first three weeks of the semester (except for unusual circumstances) so that appropriate arrangements can be made. For more information, see www.scranton.edu/disabilities

Assessments

Exams = 65%

There will be four non-comprehensive exams and an optional comprehensive final exam. Comprehension of the lectures and assigned Buss (not Dawkins) readings will be assessed with the exams. Most exams will consist of a combination of multiple choice, fill-in-the-blank, and short-answer questions. I will provide you with sample exam questions before the first exam. You will have 45 minutes to complete each exam. If you're satisfied with your four exam grades you may skip the optional comprehensive final exam.

- Exams must be taken as scheduled. An abundance of other exams/papers/extracurricular activities are *not* grounds for rescheduling an exam. In fact, there are *no* grounds for rescheduling an exam. I do not give rescheduled exams.
- Missed exams *cannot* be made-up. **If you miss an exam for any reason (illness, death in family, sporting event, hangover, alien abduction, etc.), you must take the final exam to replace it. I do not give make-up exams. No exceptions.**
- If you're unsatisfied with an exam grade, you may take the final exam and replace your lowest exam grade with your score on the final.
- Your final exam grade cannot hurt you *unless* it is 10 or more points lower than your lowest exam grade. In this case, the lower final exam grade *will* replace the lowest previous exam grade.
- Thus, four exams, each worth 16.25%, will count toward your course grade.

Quizzes = 15%

On most Mondays you'll have a short quiz on a chapter from Dawkins' *The Blind Watchmaker*. These ten quizzes will assess your comprehension of the reading and will consist of one-five multiple choice, short answer, or fill-in-the-blank questions. Quizzes can only be taken during the first five minutes of class. Missed quizzes cannot be made up. Including the syllabus quiz, you can earn 110 quiz points. At the course's conclusion I will divide your quiz point total by 100, so if you miss or bomb one quiz, it will not hurt you. I have posted on *Angel* a list of key terms and themes to look for while reading each chapter. During the quiz you may consult a one-page, one-sided outline of your notes for each chapter. You must use your own, self-generated outline.

Hypothesized Psychological Mechanism = 15%

After forming a three-person group, your group will schedule a 15-minute appointment to meet with me between April 30th and May 16th to discuss an original hypothesized evolved psychological mechanism that y'all have generated. You will discuss the proposed mechanism orally in a relatively causal fashion (no need to dress up or stand up), and will provide me with a 1-2 page *outline* (not an

essay) of your proposed mechanism. Be sure to provide a title for the proposed mechanism. You will discuss in detail:

- 1) the adaptive problem that your proposed mechanism was designed to “solve”
- 2) who had to solve the adaptive problem (e.g., men, women, both, kids only, only those in warm climates, pregnant women, ovulating women, postmenopausal women)
- 3) why this was an important recurrent adaptive problem (e.g., outline the survival/reproductive costs of not solving the problem and the benefits of solving the problem)
- 4) how your proposed psychological mechanism helped solve the problem (discuss (a) the input information the mechanism will be sensitive to, (b) the evolved decision rules that will process the information, and (c) the output of the mechanism that will help solve the adaptive problem)
- 5) how one could test your hypothesis (i.e., how one could ethically and systematically collect data that bears upon the hypothesis).

This will likely be the most difficult assignment of the class. This assignment forces you to apply the knowledge you’ve acquired about our evolved psychology and about investigating our evolved psychology to a relatively unexplored and wholly original realm. Your scientific originality, creativity and deep comprehension of this course will be on full display. Additional information about this assignment will be provided on or around March 26th.

To thwart (and if necessary punish) free riding, you will submit to me a rating form on which you will estimate your and your partners’ relative contributions to this project. Each of you is required to keep a journal of all meetings in which you briefly describe the contributions of all partners. I will collect these journals and your rating forms during your oral presentation.

If a group member did not contribute sufficiently to this assignment I will lower that student’s overall assignment grade by at least 25%. The best way to avoid problems when working in a group is to communicate with each other. If a partner is not meeting his/her obligations, you should discuss the matter as soon as the problem begins. If this does not solve the problem, come and talk with me.

Paper = 5%

A two-to-four page paper is due at the beginning of class on May 7th. The paper should be typed, stapled (not paper-clipped), paginated, and double-spaced, with 12-point font and 1-inch margins. I’d like you to choose one (or two) chapters from the textbook, and in light of select information contained in the chapter(s), reflect on your past and discuss how, if at all, you will now behave differently. I’m basically looking for you to filter your past and future actions, decisions, and mindsets through the knowledge you have garnered from this course. For example, if you choose the “Conflict between the sexes” chapter, you could discuss your past conflicts with the opposite sex and how you plan to avoid or deal with such conflicts in the future in light of what you learned about men’s and women’s evolved psychologies.

Papers will be graded on their clarity of thought, quality of expression, and command of course material. Spelling and grammar count. Papers not turned in by the beginning of class on May 7th will be docked 15% for each calendar day they are late. Be sure to demonstrate thorough knowledge of the course material, in your own words.

As an addendum to your paper I’d like you to briefly discuss a piece of popular culture (song lyrics, poem, fiction book passage, film/television scene, cartoon, etc.) that aptly illustrates or evokes an aspect of our evolved psychology. This *need not* be related to the evolved psychology discussed in your paper. You *must not* use an element of popular culture that I’ve used in class or that is discussed in the textbook. Include the relevant portion of the popular culture with this addendum (e.g., the song lyrics, book passage, movie dialogue). Time permitting, I’ll share y’all’s most interesting examples of popular culture that reflects our evolved psychology in class.

Final course grades will be assigned as follows:

94.0 – 100% = A

89.5 – 93.9% = A-

86.5 – 89.4% = B+

82.5 – 86.4% = B

79.5 – 82.4% = B-

76.5 – 79.4% = C+

72.5 – 76.4% = C

69.5 – 72.4% = C-

66.5 – 69.4% = D+

60.0 – 66.4% = D

< 60.0% = F

Academic Honesty

You are allowed to study with students outside of class, but any unauthorized assistance received or provided for any graded material will not be tolerated. In addition, plagiarizing another's work (e.g., using someone else's work or words without proper reference in a writing assignment) is prohibited. Any student found in violation of the University's Code of Academic Honesty may receive an "F" for this course and will be directed to the appropriate Dean.

Other Course Policies

- 1) I hold high expectations for my students. My assessments are challenging.
- 2) Extra credit is not available for this course. Do not request it.
- 3) Performance, not effort, determines your course grade.
- 4) Feel free to eat and drink (non-alcoholic beverages only!) in class as long as you don't disturb others with your munchin' and slurpin.'
- 5) The last day to:
 - a. add classes is February 3rd
 - b. request credit / no credit option is February 10th
 - c. drop a course with no grade is February 29th
 - d. to withdraw with a "W" grade is April 12th
- 6) **Unless instructed, do not talk with other students during class. Please share your thoughts with me and the entire class, not just a select few! Talking with classmates distracts you, your classmates, and me, and will not be tolerated. Violators of this policy will automatically lose 5 points on their next exam.**
- 7) **All cell phones must be turned off (not merely set to vibrate) and stowed away before class begins. If I SEE or HEAR your cell phone during class you automatically lose 5 points on the next exam. KEEP THEM IN YOUR BAGS!**

Caveat

In order to be flexible to the needs and interests of the class, I reserve the right to amend the scheduled content, assessments, and timetable as needed. In the event that change becomes necessary, you will be notified of the course adjustments as soon as possible.

Course Schedule

Date	Class Topic / Quiz Content	Buss Chapter
Jan 30	Fundamentals of Evolutionary Psychology	1
Feb 1	Fundamentals of Evolutionary Psychology / QUIZ Syllabus	1
Feb 3	Fundamentals of Evolutionary Psychology	1
Feb 6	Fundamentals of Evolutionary Psychology / QUIZ Dawkins Intro, Preface, Ch. 1	1
Feb 8	Conducting Research in Evolutionary Psychology	2
Feb 10	Conducting Research in Evolutionary Psychology (<i>Happy Darwin Day on 2/12!</i>)	2
Feb 13	Conducting Research in Evolutionary Psychology / QUIZ Dawkins Ch. 2	2
Feb 15	Survival Problems	3
Feb 17	Survival Problems	3
Feb 20	Survival Problems / QUIZ Dawkins Ch. 3	3
Feb 22	EXAM 1	1-3
Feb 24	Women's Long-term Mating Strategies	4
Feb 27	Women's Long-term Mating Strategies / QUIZ Dawkins Ch. 7	4
Feb 29	Women's Long-term Mating Strategies	4
Mar 2	Women's Long-term Mating Strategies	4
Mar 5	Men's Long-term Mating Strategies / QUIZ Dawkins Ch. 8	5
Mar 7	Men's Long-term Mating Strategies	5
Mar 9	Men's Long-term Mating Strategies	5
Mar 12	<i>Enjoy Spring Break</i>	
Mar 14	<i>Enjoy Spring Break</i>	
Mar 16	<i>Enjoy Spring Break</i>	
Mar 19	Men's & Women's Short-term Mating Strategies / QUIZ Dawkins Ch. 4	6
Mar 21	Men's & Women's Short-term Mating Strategies	6
Mar 23	EXAM 2	4-6
Mar 26	Oral Presentation Info / Parenting / QUIZ Dawkins Ch. 5	7
Mar 28	Parenting	7
Mar 30	Parenting	7
Apr 2	Parenting / QUIZ Dawkins Ch. 6	7
Apr 4	Kinship	8
Apr 6	<i>Enjoy Easter Break</i>	
Apr 9	<i>Enjoy Easter Break</i>	
Apr 11	Kinship	8
Apr 13	Kinship	8
Apr 16	Cooperation Among Non-relatives / QUIZ Dawkins Ch. 9	9
Apr 18	Cooperation Among Non-relatives	9
Apr 20	Cooperation Among Non-relatives	9
Apr 23	EXAM 3	7-9
Apr 25	Aggression & Warfare	10
Apr 27	Discovery Channel DVD: <i>The Science of Sex Appeal</i> / QUIZ Dawkins Ch. 11	
Apr 30	Conflict Between the Sexes	11
May 2	Conflict Between the Sexes	11
May 4	Conflict Between the Sexes	11
May 7	PAPER DUE / Status, Prestige, & Social Dominance	12
May 9	Status, Prestige, & Social Dominance	12
May 11	Sustainability & Final Wrap-up	Shackelford, 2006
EXAM 4 (chs. 10-12) & OPTIONAL COMPREHENSIVE FINAL EXAM = Wed. May 16th, 3:00 – 5:00		

APPENDIX A

Suggestions About How to Study

Particularly following the first exam, students often ask about how to study for PSYC 233. There is no reason to wait until that time to become concerned about study techniques. I have compiled a few study skills suggestions from the published literature and from McGraw Hill's website. It goes without saying that these tactics should be applied as soon as possible: They will *not* bail you out if you wait until you have already done poorly on one or more exams.

1. Look over the assigned readings BEFORE you start reading. Each chapter is organized into subsections. Indeed, organization is the hallmark of textbooks. Read these subsections. Review after reading each subsection. Take breaks after each subsection.
2. At the end of each subsection, stop and ask yourself what you have learned. Ask yourself, without looking at the book, what the major points and key terms were. If you can't define a subsection's terms and remember its points right after reading them, you didn't read at a useful level and must re-read. At the end of each chapter review the subsections, being sure to understand how each subsection relates to each other.

As you find important things, consider marking them with a highlighter or something in the margin. Better yet, ORGANIZE the ideas by drawing pictures, making lists, or composing OUTLINES to better encode the information in your memory. Important things are not just definitions. They also include study findings, theories, and summaries of research areas. Read for about 45 minutes or so—after that your efficiency drops. Stop and do laundry for 15 minutes or something before you go back to reading.

3. Work on psychology by doing the assignments by the time they are due, a little bit at a time. No athlete would prepare for a big game by sitting around doing nothing for weeks and then staying up late the night before and working out intensively. The same principle applies to learning. LEARN THE MATERIAL AS YOU GO. You have to take responsibility for learning the material. You should not have to spend too many hours studying for the exams. By the time the exam is near, you should already know the material.
4. Study someplace that is quiet and in which you will be undisturbed. Plan to work very hard when you read and study. Many failing students think that studying is nothing more than reading the book over and over with the stereo blasting, the TV blaring, and IM beeping away while their cell phone rings. They spend hours at this, but they are not really doing anything useful. To make an analogy—it would be like trying to increase physical fitness by walking slowly and having an ice cream cone every two blocks. This is fun, but it does not result in a hard body. Laying around in front of a TV and chatting with friends while scanning a book is also fun, but it is a complete waste of time as far as learning is concerned. To get fit, one must work the muscles, get out of breath and that sort of thing. In order to learn, one must WORK hard and intensely, focusing on the task at hand. No pain, no gain.
5. Study in the time of day during which you are most alert. Do not put studying off until you can hardly keep your eyes open. Successful students report that they make good use of the hour or two they have between classes by studying. It is easy to waste that time by returning home and doing things of little consequence. Much work can be accomplished during the day by finding quiet places that are near to where your classes meet and hitting the books.
6. It is probably not worthwhile to re-copy your lecture notes after class. It is a very good idea, however, to take notes as thoroughly as possible in class, leaving some space as you are taking them. Then, as soon after class as you can, review the notes and clarify things you have not recorded in sufficient detail.
7. Take responsibility for your own performance. Blaming roommates, textbooks, time of class meetings, or whatever will not improve your performance. If you are not spending two to three hours in good,

dense, quiet study for each hour in class, you are not doing enough. This point is usually ignored by students who do poorly. Following these steps exactly will not be easy at first. If you do poorly on an exam, the first thing you will have to admit is that you have to do something DIFFERENT if you expect your grades to be different. A second thing you might have to admit is that you may have managed to get through high school and subsequent life without maximum efficiency in learning how to learn. Most students who do not do well are either (1) not working long enough or (2) not working efficiently.

Additional Studying Strategies

Although you are expected to study and ultimately learn a wide range of material, you are rarely taught any systematic strategies to study effectively. However, psychologists have devised several excellent techniques for improving study skills, two of which are described below. By employing one of these procedures—known by the acronyms “SQ3R” and “MURDER”—you can increase your ability to learn and retain information and to think critically, not just in psychology classes but in all academic subjects.

SQ3R

The SQ3R method (Robinson, 1941, 1970) includes a series of five steps, designated by the initials S-Q-R-R-R. Psychologist Frank Pleasant Robinson developed this method during World War II to help military personnel learn complex material quickly.

The first step is to *survey* (skim) the material by reading the parts of the chapter that give you an overview of the topics covered. Some textbooks contain, for example, chapter outlines, chapter summaries, lists of learning objectives, prologues and epilogues, or some combination of these features and others.

The next step—the “Q” in SQ3R—is to *question*. Formulate questions—either aloud or in writing—before actually reading a section of the material. Some textbooks contain critical thinking questions that are a good source of questions. However, do not rely on them entirely. Making up your own questions is crucial. You may want to write them in the margins of your book. This process helps you to focus on the key points of the chapter, while at the same time putting you in an inquisitive frame of mind.

It is now time for the most important, step: to *read* the material. Read carefully and, even more importantly, read actively and critically. For instance, while you are reading, answer the questions you have asked yourself. You may find yourself coming up with new questions as you read along; that’s fine, since it shows you are reading inquisitively and paying attention to the material. Critically evaluate material by considering the implications of what you are reading, thinking about possible exceptions and contradictions, and examining the assumptions that lie behind the assertions made by the author.

The next step—the second “R”—is the most unusual. This “R” stands for *recite*, meaning that you look up from the book and describe and explain to yourself, or a study partner, the material you have just read and answer the questions you posed earlier. Do it aloud; this is one time when talking to yourself is nothing to be embarrassed about. The recitation process helps you to clearly identify your degree of understanding of the material you have just read. Moreover, psychological research has shown that communicating material to others, or reciting it aloud to yourself, assists you in learning it in a different—and a deeper—way than material that you do not intend to communicate. Hence, your recitation of the material is a crucial link in the studying process.

The final “R” refers to *review*. Reviewing is a prerequisite to fully learning and remembering material you have studied. Look over the information, reread the features in your textbook that provide you with an overview of the chapter, and be sure that you can answer any critical thinking questions, review questions, and questions you posed for yourself. Reviewing should be an active process, in which you consider how different pieces of information fit together to form a bigger picture.

MURDER

The MURDER system, although not altogether dissimilar to SQ3R, provides an alternative approach to studying (Dansereau, 1978).

In MURDER, the first step is to establish an appropriate *mood* for studying by setting goals for a study session and choosing a time and place so that you will not be distracted. As mentioned previously, it is best if you schedule regular blocks of study time and select one place that you reserve specifically for studying.

Next comes reading for *understanding*, paying careful attention to the meaning of the material being studied.

Recall is an immediate attempt to recall the material from memory, without referring to the text.

Digesting the material comes next; you should correct any recall errors, and attempt to organize and store newly learned material in memory.

You should work next on *expanding* (analyzing and evaluating) new material, trying to apply it to situations that go beyond the applications discussed in the text. By incorporating what you have learned into a larger information network in memory, you will be able to recall it more easily in the future.

Finally, the last step is to *review*. Just as with the SQ3R system, MURDER suggests that systematic review of material is a necessary condition for successful studying.

APPENDIX B

Taking Exams

There are some principles of exam performance known only to successful, test-wise students. Millman (1966) defined test-wiseness as the ability to use knowledge of the characteristics of tests and the testing process to improve one's performance. Studies show that test-wise students do better on exams (Rogers & Bateson, 1994; Towns & Robinson, 1993). Here are the basic principles:

- 1) **Know your stuff.** The single most important point is to have a good, solid knowledge and understanding of the material being tested. Using the tips for doing well in college and managing your time, as well as the study strategies described above, can help you to achieve this kind of knowledge and understanding.
- 2) **Schedule your time.** Look the test over and calculate the time you can afford to spend on each item.
- 3) **Read completely.** Be sure to read the entire item. If the item is multiple choice, try to answer it before looking at the alternatives so that you will know which is correct.
- 4) **Eliminate options.** If you don't immediately know the answer, eliminate unlikely options quickly, and then choose among the remainder.
- 5) **Look to other items.** It is common for information in one item to provide an answer or partial answer to another.
- 6) **Don't think too much.** If you don't know an answer, put down your best guess and come back later if time permits. Mark questions you are most uncertain of so that you can quickly return to them.
- 7) **Don't leave items blank.** Despite rumors to the contrary, it is to your advantage to guess unless the professor will deduct substantial credit for guessing (Budescu & Bar-Hillel, 1993).
- 8) **Ask questions.** Ask the professor to clarify an item if necessary.
- 9) **Review your answers.** Time permitting, go back over the entire test before turning it in. If you are short on time, concentrate on the difficult items you marked.
- 10) **Change your answers!** I emphasize this one because the idea that you should never change an answer is so widespread among students and faculty alike. It is a myth (Schwarz et al., 1991). Studies show that students change answers from right to wrong about 20 percent of the time, but change them from wrong to right 58 percent of the time (Benjamin et al., 1984). Other work shows that 3 points are gained for every 1 lost by changing answers (Geiger, 1991).