

Deciphering Holland's Code

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**Abstract**

*The Party Exercise* found on countless career guidance websites and popularized by the best-selling, job-hunting book *What Color Is Your Parachute* (Bolles, 2015) purports to provide an estimate of an individual's Holland's code. This study examines whether this commonly used *Party Exercise* accurately predicts an individual's Holland's code (Holland, 1997).

Undergraduate students (N=473) completed *The Party Exercise* and then the *Self-Directed Search* (Holland & Messer, 2013). The results of this study do not support the use of this popular "Party Exercise" as a valid estimate of an individual's Holland code.

*Keywords:* Holland's Hexagon, Realistic, Investigative, Artistic, Social, Enterprising, Conventional (RIASEC) Holland Code, Self-Directed Search, The Party Exercise

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### Deciphering Holland's Code

This study investigates the validity of *The Party Exercise* (Bolles, 2015) to produce an accurate estimate of an individual's Holland RIASEC Code (Holland, 1997). Can such a simple exercise based on being at a "party" produce a valid estimate of an individual's Holland's type? Could it be that the millions of job-seeking consumers who have participated in *The Party Exercise* have been and continue to be led astray?

Although there has been no known published research validating the utilization of *The Party Exercise* as an accurate estimate of an individual's Holland's code, there is a vast amount of empirical research on John Holland's vocational model which is considered to be the theory with the single-most greatest impact on career counseling and education (Rayman & Atanasoff, 1999). Galvanized by further research that continues to validate Holland's work today, it is believed that people will work up to and actualize their potential if they are in work environments which match and are suitable to their personality.

### ***Holland's Hexagon***

During the 1960's, with his theory in hand, Dr. Holland set out to change the way America thought about vocational placement through empirically validating his hexagonal typology. Holland developed this hexagon in order to provide user-friendly impersonal display of his theory for everyone. His business cards read 'Have Hexagon, Will Travel' as he attended John Hopkins University in order to continue research and development of his life's work. The follow figure illustrates a clear concise example of Dr. John Holland's simplistic genius.

Figure 1.



### ***Holland's RIASEC code***

With Holland's typology, both an individual and an environment can be described along six hexagonal dimensions: Realistic (R), Investigative (I); Artistic (A), Social (S); Enterprising (E); and Conventional (C). Holland (1996) describes the personality attributes of the different points of Holland's hexagon using five specific categories: *Preference for Activities and Occupations; Values; Sees Self As; Others See As, and Avoids* (p.398). Holland also describes environments, including work environments, with the hexagonal dimensions which include what each dimension: *Requires; Demands and Rewards the Display of; Values or Personal Styles Allowed Expression; Occupations or Other Environments Involve; and Sample Occupations* (p.399). According to Holland's theory, individuals thrive in environments that match their personality type. For example, an individual who fits strongly with Holland's Social dimension would seek out and do best in a social environment that allows them to express themselves and interact with people rather than primarily with things or ideas.

Starting with the *Realistic* point of Holland's hexagon, people who match this personality type have mechanical and/or have physical abilities. They interface well with machinery, use tools, work with animals, or enjoy working outside altogether. These people are traditionalists who utilize a common sense approach to life.

The *Investigative* type represents individuals who question things as they are. Instilled with curiosity, these sometimes-naysayers-of-the-norm love to learn, to analyze, and to problem-solve in subjects such as math, medicine, and science. This type enjoys acquiring new knowledge. They may be perceived by others as intellectual and asocial.

In comparison, individuals who best fit the *Conventional* type like to be organized, accurate, and efficient, leaving no room for ambiguity. They are detail-oriented and seem to enjoy working with data and numbers, in areas such as math and finance which utilize their methodically analytical approach. These people work well analyzing data, writing directions for product utilization, and in areas that make use of their ability to follow through and be dependable.

It is the *Artistic* personalities who are the creators within our society. They have an appreciation for art and self-expression, while living more independent lives without as much structure. People with this personality type are often writers and innovators and use their imagination to its fullest capacity.

The *Enterprising* type prefers to influence, persuade, motivate, and lead others. The Enterprising types are the CEO's of the world, entrepreneurs of business. Individuals who fall under this category often appreciate having power and authority, and tend not to shy away from

social situations. They may be able to speak with eloquence in public and soak up the limelight, while other types may stammer or choke their way into the comfort of the shadows.

As mentioned previously, another point on the hexagon the *Social* type, encompasses the extraverted personalities in the world who utilize their people-oriented, externally-focus to be good listeners and team-oriented. They possess good writing and verbal skills. They have a passion for helping, teaching, and training, and therefore do well as teachers, social workers, and therapy-focused psychologists. They are the people who shape and band- aid our lives when life leads us astray.

### ***Support for Holland's Model***

Holland's codes are currently utilized by the Occupational Information Network (O\*NET). O\*NET is a huge database of thousands of careers, each of which has been assigned a Holland's code. Supported by the U.S. Department of Labor's Employment and Training Administration, O\*NET is said to be "the primary source of U.S. occupational information" (Reardon, Bullock & Meyer, 2007, p, 262).

According to Holland, individuals stay in or move among jobs of the same type. In a sample of 989 male workers, 79% were in jobs that fit their strongest Holland type; and although these workers may change jobs, they did so within the same job category (Holland, 1974). Similarly, Gottfredson (2009) found that 72% of young men and 75% of young women change jobs within their category, and this increases steadily with age reaching 91% of workers 65 years of age or older. This has been referred to as "continuity of careers" and strongly supports Holland's model. In fact, Holland noted that "the application of the typology's classification system to work histories represents its most explicit success" (1996, p. 397).

Most career tests today have been influenced by Holland's model. Such measures include the *Self-Directed Search* (SDS; Holland & Messer, 2013), *Strong Interest Inventory* (Strong, 2012), and *Campbell Interest and Skills Survey* (Campbell, 2003). Just this year, the *Journal of Career Assessment* published support for the *South African Career Interest Inventory* (SACII). Morgan, Gideon de Bruin, and Karina de Bruin worked with the South African population developing and testing the SACII which is predicated upon Holland's vocational personality theory. Their study included a sample of 985 traditional aged, South African college students, 435 males and 547 females. The six vocational personality scales yielded Cronbach's  $\alpha$  coefficients ranging from .96 to .98. The authors concluded that Holland's hexagonal model formed the basis of a high quality and psychometrically sound instrument for the South African population.

### ***The Party Exercise***

Published annually in the popular job-hunting and career book *What Color is Your Parachute* (Bolles, 2015), versions of *The Party Exercise* can also be found in countless career guidance mediums including websites and social media. This exercise is said to determine an individual's Holland personality type. However, no published empirical support could be found for this claim.

According to the *New York Times* (2014), over 10,000,000 copies of Bolles' career guide have been sold, and it has been translated into 20 different languages to become Ten Speed Press's (now owned by Random House) best-selling book of all time. In 1972, Ten Speed Press bought the commercial publishing rights to *What Color Is Your Parachute*, which was initially penned in 1970. Within months, Parachute floated its way up the American best sellers lists to



become the “best selling job-hunting and career changing book in the world” (Bolles, 2015). In 1995, the Library of Congress listed *Parachute* as one of the *25 Books That Shaped Readers Lives* in the company of Maya Angelou’s *I Know Why the Caged Bird Sings* and many other immortal classics. Every one of the 40 annual editions of *Parachute* includes the very commonly used *Party Exercise*. In every edition of the book, Bolles utilizes “The Party Exercise” as a simple way for an individual to identify which of Holland’s dimensions fit them. Based on this exercise, an individual obtains an estimate of their three-letter Holland Code without taking one of the formal, standardized assessment instruments.

*The Party Exercise* (Bolles, 2015) is a rather simple exercise requiring minimal time and minimal effort. The individual completing the exercise is asked to pretend that they have just arrived at a party and do not know anyone there yet. The exercise contains descriptions of six different types of people, each corresponding to a Holland’s dimension. The individual is asked which type they would like to spend time with first, second, and third. Specifically, the exercise asks “*Which corner of the room would you be instinctively drawn to, as the group of people you would most enjoy being with for the longest time? Leave aside any question of shyness, or whether you would have to talk to them*” (pg. 127). In this exercise, the three groups that the person indicates they would gravitate to represent the individual’s 3- letter Holland’s code. Because thousands of jobs/careers have also been coded, the individual can then use this estimate of their Holland’s code to find the careers that fit their personality. Without any empirical evidence that “*The Party Exercise*” produces an accurate estimate of an individual’s Holland code, the question arises as to the accuracy of this exercise.

## Method

### *Participants*

A sample of 473 undergraduate college students from the University of Central Florida (UCF) were recruited through the UCF Psychology Department's online participant recruitment system (SONA). These participants received extra credit or course credit in certain psychology courses for their participation in the study. The sample of 473 participants consisted of 147 males and 324 females (2 declined to answer) ranging in age from 18-51 with a mean age of 35.72 (SD=10.6). The majors of the participants included Psychology (29%), Nursing (14%), Biomedical Sciences (8%), Biology (5%), Health Sciences (4%), Criminal Justice (4%), Finance (2%), Hospitality Management (2%), Information Technology (2%), and Mechanical Engineering (2%), and the remaining 28% of the participants were from other majors (less than 2% for any other specific major).

### Measures

***Self-Directed Search.*** The *Self-Directed Search* (SDS; Holland & Messer, 2013) was used to obtain the participants' Holland's type. This measure contains 252 total items across four main sections: *Activities*, *Competencies*, *Occupations*, and *Self Estimates of Skills and Abilities*. Each of these four sections contains a list of items for which the respondents indicate if they are interested and/or proficient. For example, in the *Activities* section, respondents indicate whether they like or dislike activities ranging from car repair to reading and writing poetry. Within each of these four areas there are a cluster of items that correspond to each of Holland's types, such that there are a group of Realistic, Investigative, Artistic, Social, Enterprising and Conventional items. Each of these four areas yields scores on each of the six Holland's types. The section

scores for each of the six types range from 1-14, and at the end of the measure they total to indicate overall scores for each of the six types. The higher the overall score, the more strongly that person is said to fit with that type. The individual's Holland's Type or Holland's Code is comprised of their top 3 scoring types. However, an individual is said to be well-differentiated if they score very highly in only one particular type. Such individuals may have one type, such as being Artistic that overshadows the other types and strongly captures their personality.

According to the model, such individuals are very well suited for a career that provides them with that type of environment. A well-differentiated Artistic type would be predicted to be very highly successful and satisfied in an artistic work environment. When an individual does not score strongly in just one area, then they would typically look for work environments that match their top three scoring types. For example, if an individual scores as Artistic, Social and Enterprising, referred to as "ASE" then they would take a close look at the careers and occupations that are coded "ASE" (Holland & Messer, 2013).

The SDS has well established psychometric soundness. The reliability of the SDS was established by determining its internal consistency, test-retest reliability, and inter-scorer agreement. Internal consistency coefficients for the Activities, Competencies, and Occupations scales range from .71 to .93, and the overall total type scores have coefficients ranging from .88 to .93. Test-retest reliability coefficients range from .78 to .98 (Holland & Messer, 2013).

***The Party Exercise.*** *The Party Exercise* (Bolles, 2015), as described in detail in the earlier section, is a popular, quick and easy exercise used as an estimate of an individual's Holland's code in lieu of a standardized measure such as the *Self-Directed Search*. The Party Exercise has a Hexagon. At each point of the hexagon is a letter corresponding to one of the six Holland Dimensions (RIASEC). A brief description is given of each of the six dimensions. The person

doing *The Party Exercise* is instructed that the dimensions represent groups of people “with same or similar interests” that are together in a corner of a room. The person doing the exercise is asked which group they would most enjoy being with; and if that group left, which group would they be drawn to next? If that group also departed, which would be the third group they were drawn to? This exercise can be found in Appendix A.

***Participant Information Form.*** Basic demographic and participant information such as age, gender, race, educational level and intended job/career area, was obtained in a set of nine questions that participants answered last. See Appendix B for the *Participant Information Form*.

### ***Procedure***

Data in this study was collected online. Upon consenting to participate, the individuals in this study were first asked to complete the *Party Exercise* (Bolles, 2015). Then, participants completed the *Self-Directed Search* (Holland & Messer, 2013). Lastly, they provided general demographic and other relevant information.

## **Results**

Data from 92 of the 473 participants was eliminated because these participants had undifferentiated *Self-Directed Search* profiles, meaning that they scored about the same on all of the RAISEC dimensions such that no particular 3-letter code could emerge and be compared to their results on *The Party Exercise*. For the remaining 381 participants, Kappa Coefficients were calculated for the 3-letter codes generated on *The Party Exercise* and those from the *Self-Directed Search*. Kappa agreement for the first letter of the Holland’s codes on the two measures was .217. These codes matched in 39.6% of the cases (151 of 381 cases). Kappa agreement on the second letter of the code for the two measures dropped to .028, and for the

third letter of the code was .039. Thus, the codes on *The Party Exercise* and *The Self-Directed Search* did not match any better than chance.

### **Discussion**

The purpose of this study was to determine whether *The Party Exercise* (Bolles, 2015) accurately predicts an individual's Holland Code. Low correlations were found between the participants' results on *The Party Exercise* and their results on the *Self-Directed Search*. Thus, the results of this study suggest that *The Party Exercise* is not an accurate and valid predictor of an individual's Holland's code.

The results of this study suggest that the popular use of *The Party Exercise* to estimate an individual's Holland's code is misguided. It seems that when asked who they might like to socialize with at a party, people do not necessary indicate that they would the spend time with people who have personality styles similar to themselves. An interesting area for future research would be to simply present individuals with Holland's Hexagon and its descriptions of the six dimensions and ask the participants which of the dimensions best fit their personality. It is possible that this could yield a better estimate of the individual's Holland code. More importantly, however, the results of this study highlight the risk of trying to use simple exercises in lieu of formalized assessment measures.

This is the only research analyzing the connection, or lack thereof, between Holland's theory and Bolles' *Party Exercise*. Future research could seek to replicate the results of this study, and also expand the types of participants beyond college students including adolescents and older adults and individuals who are not in college. The participants in this study were motivated by course credit and/or extra credit. Future research could involve individuals who are

actually interested in taking these assessments because they are motivated to find a career/work environment that fits them. It is possible that these participants may put more thought and effort into the exercise and their results may correlate more closely with their Holland code obtained from formal measures.

The results of the present study are beneficial to the millions of job-seekers utilizing *The Party Exercise* (Bolles, 2015) who expect this exercise to provide them with an accurate estimate of their Holland's code. An accurate Holland code enables job seekers to determine their optimum career environment in order to actualize their career aspirations and abilities. After decades of research, Holland has already solidly demonstrated that people will work up to their maximum potentiality when their personality and careers environments match up. There are millions of people out there looking to decide upon a career or to change their careers, and many of them could enjoy their work if there was greater congruence between their personality and work environment.

## **Appendix A: Explanation of Research**

## Appendix A

### EXPLANATION OF RESEARCH

**Title of Project:**

*Personality and Career Assessment*

**Principal Investigator:**

Karen Mottarella, Psy.D.

**Other Investigators:**

Shannon Whitten, Ph.D.; Dennis Turner

You are being invited to take part in a research study. Whether you take part is up to you.

- The purpose of this research is to explore the validity of certain career assessment instruments and to look at whether certain personality characteristics correlate with preference for occupational environments.
- Individuals participating in this study will be asked to complete several career assessment measures that ask questions about your personality, preferences, skills and abilities.
- Please be advised that you do not have to answer every question. You are free to skip questions or tasks.
- The study is administered entirely online and can be completed from any location that provides you with internet access.
- We expect your participation in this study to take not more than one hour.

You must be 18 years of age or older to take part in this research study.

**Study contact for questions about the study or to report a problem:** If you have questions, concerns, or complaints, or think the research has hurt you, talk to Dr. Karen Mottarella, Building 3 Room 317, Psychology Department, University of Central Florida Palm Bay Campus. Dr. Mottarella can be reached by phone at 321-433-7987 or by email at [Karen.mottarella@ucf.edu](mailto:Karen.mottarella@ucf.edu)

**IRB contact about your rights in the study or to report a complaint:** Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.



**APPENDIX B**  
**PARTICIPANT INFORMATION FORM**



8. Marital Status:

- Single
- Married
- Divorced
- Widowed

9. What is the job/career you are currently planning to have? Please describe (such as “I want to be a dentist”)

### References

- Bolles, R.N. (2015). What color is your parachute? : A practical manual for job-hunters and career changers. 125-130. Berkeley, CA: Ten Speed Press.
- Campbell, D. P. (1995). The Campbell Interest and Skill Survey (CISS): A product of ninety years of psychometric evolution. *Journal of Career Assessment, 3*(4), 391-410.
- Gottfredson, G. D. (1999). John L. Holland's contributions to vocational psychology: A review and evaluation. *Journal of Vocational Behavior, 55*(1), 15-40.
- Gottfredson, G. D. (2009). John L. Holland (1919–2008). *American Psychologist, 64*(6), 561.
- Holland, J. L. (1997). Making vocational choices: A theory of vocational personalities and work environments (3rd ed.). Odessa, FL: PAR, Inc.
- Holland, J.L., & Messer M., (2013). *Self-Directed Search (SDS) Assessment Booklet: A Guide to Educational and Career Planning*. Lutz, FL: PAR, Inc.
- Lent, R. W., Sheu, H., & Brown, S. D. (2010). The self-efficacy—interest relationship and RIASEC type: Which is figure and which is ground? Comment on Armstrong and Vogel (2009). *Journal of Counseling Psychology, 57*(2), 219-225.
- Morgan, B., de Bruin, G. P., & de Bruin, K. (2015). Constructing Holland's hexagon in South Africa: Development and initial validation of the South African Career Interest Inventory. *Journal of Career Assessment, 23*(3), 493-511.
- Reardon, R. C., Emily E. Bullock, E.E., & Meyer, K. E. ( 2007). A Holland perspective on the U.S. work force from 1960 to 2000. *The Career Development Quarterly 55*(3): 262-274.
- Strong, E. K., Jr., Donnay, D. A. C., Morris, M. L., Schaubhut, N. A., & Thompson, R. C. (2004). *Strong Interest Inventory, Revised Edition*. Mountain View, CA: Consulting Psychologists Press, Inc.