Weird Coincidences Commonly Occur

Stephanie L. Coleman; Bernard D. Beitman, MD; and Elif Celebi, MD

Psychiatric Annals, Volume 39, Issue 5, May 2009

CME EDUCATIONAL OBJECTIVES

- 1. Assess research on meaningful coincidences.
- 2. Explain that weird coincidences are normative.
- 3. Analyze some of the common meaningful coincidences.

ABOUT THE AUTHOR

Stephanie L. Coleman is a PhD candidate at University of Missouri-Columbia. Elif Celebi, MD, is with the University of Rochester, Rochester, New York. Bernard D. Beitman, MD, is Professor, Department of Psychiatry, University of Missouri-Columbia.

Address correspondence to: Bernard D. Beitman, MD, Department of Psychiatry, University of Missouri-Columbia, Three Hospital Drive, Columbia, MO 65201; fax 573-884-5936; or e-mail beitman@health.missouri.edu.

Ms. Coleman, Dr. Beitman, and Dr. Celebi have disclosed no relevant financial relationships.

10.9999/00485713-20090421-03

PARTICIPANT ATTESTATION

____I certify that I have read the article(s) on which this activity is based, and claim credit commensurate with the extent of my participation.

COMMERCIAL BIAS EVALUATION

Comments regarding commercial bias:

Please rate the degree to which the content presented in this activity was free from commercial bias. No bias Significant bias 5 4 3 2 1

INSTRUCTIONS

- 1. Review the stated learning objectives of the CME articles and determine if these objectives match your individual learning needs.
- 2. Read the articles carefully. Do not neglect the tables and other illustrative materials, as they have been selected to enhance your knowledge and understanding.
- 3. The following quiz questions have been designed to provide a useful link between the CME articles in the issue and your everyday practice. Read each question, choose the correct answer, and record your answer on the CME REGISTRATION FORM at the end of the quiz. Retain a copy of your answers so that they can be compared with the correct answers should you choose to request them.
- 4. Type your full name and address and your date of birth in the space provided on the CME REGISTRATION FORM.
- 5. Complete the evaluation portion of the CME REGISTRATION FORM. Forms and quizzes cannot be processed if the evaluation portion is incomplete. The evaluation portion of the CME REGISTRATION FORM will be separated from the quiz upon receipt at PSYCHIATRIC ANNALS. Your evaluation of this activity will in no way affect the scoring of your quiz.
- 6. Your answers will be graded, and you will be advised whether you have passed or failed. Unanswered questions will be considered incorrect. A score of at least 80% is required to pass. Your certificate will be mailed to you at the mailing address provided. Upon receiving your grade, you may request quiz answers. Contact our customer service department at (856) 994-9400.
- 7. Be sure to complete the CME REGISTRATION FORM on or before May 31, 2010. After that date, the quiz will close. Any CME REGISTRATION FORM received after the date listed will not be processed.

8. This activity is to be completed and submitted online only.

Indicate the total time spent on the activity (reading article and completing quiz). Forms and quizzes cannot be processed if this section is incomplete. All participants are required by the accreditation agency to attest to the time spent completing the activity.

CME ACCREDITATION

This CME activity is primarily targeted to patient-caring physicians specializing in psychiatry. There are no specific background requirements for participants taking this activity. Learning objectives are found at the beginning of each CME article.

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of Vindico Medical Education and PSYCHIATRIC ANNALS. Vindico Medical Education is accredited by the ACCME to provide continuing medical education for physicians.

Vindico Medical Education designates this educational activity for a maximum of 3 AMA PRA Category 1 Credits $^{\text{TM}}$. Physicians should only claim credit commensurate with the extent of their participation in the activity.

FULL DISCLOSURE POLICY

In accordance with the Accreditation Council for Continuing Medical Education's Standards for Commercial Support, all CME providers are required to disclose to the activity audience the relevant financial relationships of the planners, teachers, and authors involved in the development of CME content. An individual has a **relevant financial relationship** if he or she has a financial relationship in any amount occurring in the last 12 months with a commercial interest whose products or services are discussed in the CME activity content over which the individual has control. Relationship information appears at the beginning of each CME-accredited article in this issue.

UNLABELED AND INVESTIGATIONAL USAGE

The audience is advised that this continuing medical education activity may contain references to unlabeled uses of FDA-approved products or to products not approved by the FDA for use in the United States. The faculty members have been made aware of their obligation to disclose such usage.

HOW TO OBTAIN CME CREDITS BY READING THIS ISSUE

This CME activity is primarily targeted to patient-caring physicians specializing in psychiatry. Physicians can receive AMA PRA Category 1 Credits™ by reading the CME articles in PSYCHIATRIC ANNALS and successfully completing the guiz at the end of the articles. Complete instructions are given subsequently. Educational objectives are found at the beginning of each CME article.

CME ACCREDITATION

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of Vindico Medical Education and PSYCHIATRIC ANNALS. Vindico Medical Education is accredited by the ACCME to provide continuing medical education for physicians.

Vindico Medical Education designates this educational activity for a maximum of 3 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

FULL DISCLOSURE POLICY

In accordance with the Accreditation Council for Continuing Medical Education's Standards for Commercial Support, all CME providers are required to disclose to the activity audience the relevant financial relationships of the planners, teachers, and authors involved in the development of CME content. An individual has a relevant financial relationship if he or she has a financial relationship in any amount occurring in the last 12 months with a commercial interest whose products or services are discussed in the CME activity content over which the individual has control. Relationship information appears at the beginning of each CME-accredited article in this issue.

UNLABELED AND INVESTIGATIONAL USAGE

The audience is advised that this continuing medical education activity may contain references to unlabeled uses of FDA-approved products or to products not approved by the FDA for use in the United States. The faculty members have been made aware of their obligation to disclose such usage.

EDUCATIONAL OBJECTIVES OVERVIEW

We tend to be delighted, surprised, or puzzled by coincidences that happen to us (but not so much to others, which we tend to explain as merely a coincidence). The series of articles on the experience of reacting to coincidences provides a different window into how our brains and minds work. Perhaps when explanatory models about weird coincidence experiences become dysregulated, psychopathology (eg, paranoia) can result.

Note that in the Beitman article, the story about John Snow finding that the Broad Street pump was the cause of a cholera outbreak, although quite interesting, may not be as true as most might think. By mapping the outbreak, Dr. Snow identified the pump as the cause of cholera. He removed the pump, and the cholera epidemic diminished. But as detailed by Tufte, the rate of cholera was decreasing before the water pump was removed, which is a good example of finding a relationship where one did not necessarily exist.

TABLE OF CONTENTS

255 Brains Seek Patterns in Coincidences

Bernard D. Beitman, MD

265 Weird Coincidences Commonly Occur

Stephanie L. Coleman; Bernard D. Beitman, MD: and Elif Celebi, MD

271 Characterizing High-frequency Coincidence Detectors

Stephanie L. Coleman; and Bernard D. Beitman, MD

280 Synchroners, High Emotion, and Coincidence Interpretation

Bernard D. Beitman, MD; and Albert Shaw, MD

287 Synchronicity and Psychotherapy: Jung's Concept and Its Use in Clinical Work

Robert H. Hopcke, MFT

RESPONSIBILITY FOR STATEMENTS

All opinions expressed by authors and quoted sources are their own and do not necessarily reflect the opinions of the editors, publishers, or editorial boards of Psychiatric Annals or its employees. Vindico Medical Education or its employees, or the University of New Mexico. The acceptance of advertising in no way implies endorsement by the editors, publishers, or editorial boards of *Psychiatric Annals*.

The material presented at or in any *Psychiatric Annals* or Vindico Medical Education continuing education activity does not necessarily reflect the views and opinions of Vindico Medical Education or

Psychiatric Annals. Neither Psychiatric Annals, Vindico Medical Education, nor the faculty endorse or recommend any techniques, commercial products, or manufacturers. The faculty/authors may discuss the use of materials and/or products that have not yet been approved by the U.S. Food and Drug Administration. Articles are intended for informational purposes only and should not be used as the basis of patient treatment. All readers and continuing education participants should verify all information before treating patients or utilizing any product.

Copyright © 2009 by SLACK Incorporated. All rights reserved. No part of this publication may be reproduced without prior written consent of the publisher.



Weird Coincidences Commonly Occur

Stephanie L. Coleman; Bernard D. Beitman, MD; and Elif Celebi, MD

CME EDUCATIONAL OBJECTIVES

- 1. Assess research on meaningful coincidences.
- 2. Explain that weird coincidences are normative.
- 3. Analyze some of the common meaningful coincidences.

Stephanie L. Coleman is a PhD candidate at University of Missouri-Columbia. Elif Celebi, MD, is with the University of Rochester, Rochester, New York. Bernard D. Beitman, MD, is Professor, Department of Psychiatry, University of Missouri-Columbia.

Address correspondence to: Bernard D. Beitman, MD, Department of Psychiatry, University of Missouri-Columbia, Three Hospital Drive, Columbia, MO 65201; fax 573-884-5936; or e-mail beitman@ health.missouri.edu.

Ms. Coleman, Dr. Beitman, and Dr. Celebi have disclosed no relevant financial relationships.

10.9999/00485713-20090421-03

The coincidence experience permeates all domains of life. We speak of the coincidental nature of falling in love, the experience of having a job "fall into one's lap," and we read about coincidences in literature and see them occur regularly in movies and



PSYCHIATRIC ANNALS 39:5 | MAY 2009

PsychiatricAnnalsOnline.com | 265

plays. To many of us, there is some degree of awe and wonder involved in experiencing an improbable coincidence. We may question why it happened, what it means, or simply stand back in amazement.

C.G. Jung coined the term "synchronicity" to imbue instances of "meaningful coincidence" with a specific status as indicators of an "acausal connecting principle;" he used his coincidence observations to support his theories of archetypes and the collective unconscious. The general idea (with broader definitions including serendipity, happenstance, and chance events) has drawn increasing attention over the past few decades; it is being studied by both Jungian and non-Jungian psychotherapists, neuropsychologists, and career counselors. Synchronicity is generally characterized by the low probability intersection of two or more events. One of the events is usually a thought or image: the other takes place in the person's environment. The corresponding internal and external events generally occur within a narrow window of time. The incident strikes the person experiencing it as "weird" or out of the ordinary. The unexpected nature of the experience often generates some degree of emotion and with it the search for its possible meaning. Although Jung defined synchronicity in many different ways throughout his career,² the most accepted Jungian definition requires that the coincidence help with the person's individuation — coincidence as a therapeutic agent.

The primary method for studying synchronistic experiences has been through case studies sometimes accompanied by in-depth analysis. Comprehensive and systematic methods of studying synchronicity are sparse. The prevalence of synchronistic experiences within a representative sample is currently an open question. Although case reports often associate synchronicity with spirituality, the association has not been systematically explored.

Henry conducted a survey that measured coincidence experiences among

readers of a London-based newspaper, The Observer.3 The survey followed an article about potentially meaningful coincidences. The sample was comprised of 991 individuals, equal in males and females, but skewed towards older adults. Overall, 84% reported having the experience of meaningful coincidence. The most commonly reported coincidence experience (reported by 74% of the sample) was spontaneous association, by which a thought (such as a name), is manifested externally (such as on the radio). Sixty-seven percent of the sample reported small-world encounters, referring to meeting someone in improbable circumstances. With respect to the meaning of these coincidence experiences, 86% of the sample found the experiences personally meaningful, 88% found them significant, and 78% found them useful. The most common attributions regarding the cause of meaningful coincidences were intuition, psi, and chance.

Conclusions from this study appear to indicate that significant numbers of people experience meaningful coincidences. However, because the survey appeared alongside an article on coincidence, participants are likely to have been highly interested in the subject. Thus, these results probably overestimate the prevalence of coincidence experiences in the general population.

Building on the Henry study, Bressan asked a more randomly selected group of 214 subjects both students and non-students questions about frequency of coincidences from never to very often.4 Spontaneous associations (thinking of someone and then running into that person) and small-world coincidences (encountering someone that one had not seen in a long time in an improbable place) were rated as occurring a few times by the sample. Precognition (predicting the future) and clusters (of numbers or words) were rated as occurring between once or twice and a few times. Unexpected solutions to a problem and telepathy were rated as occurring once or twice.

Meyer's study investigated relationships between personality variables and synchronistic experiences.⁵ A total of 88 undergraduate students took part in the study, which included several personality instruments as well as a nine-item synchronicity index. A significant relationship was found between synchronicity experiences and one factor of introversion (introverted feeling). Of the specific experiences, commonly reported ones were saying what someone else is thinking (or vice versa), thinking of a song and hearing it on the radio, and thinking of a friend who then contacts you. Furthermore, 27% of the sample responded that they had life-changing coincidences. These dramatic coincidences clustered around life-threatening situations, death, employment, and relationships.

Expanding upon the theme of employment, career counselors have studied the frequency and use of chance experiences in career development. Betsworth and Hansen found that 60% of their participants' careers were impacted by chance events.⁶ Bright, Pryor, and Harpham found 74% of their participants had been influenced by a chance event in their career development.⁷ Additionally, these authors found participants reported an average of 7.7 chance events across the entire career path. Chance events, to these authors, included events such as professional or personal connections, unexpected advancement, being in the right place at the right time, obstacles in original career path that led to a better path, unintended exposure to an interesting activity, and major change of residence.

As an early step toward a scientific understanding of meaningful coincidences, we developed the Weird Coincidence Scale (WCS) to assess the frequencies at which these experiences happen within a general population. The WCS might also provide a general self-report measure, which can be used for other specific and general populations. We also wanted to investigate the pos-

sible correlates between the WCS and self-reports of spirituality.

METHODS Procedure

Participants were recruited via a weekly e-mail announcement list sent to individuals affiliated with the University of Missouri-Columbia campus. The announcement provided a few common coincidence experiences (ie, thinking of someone and receiving a phone call from them, obtaining the right amount of money unexpectedly), and then listed a URL for the online survey that was advertised to help participants find out which weird coincidences one has experienced. Individuals were notified regarding the purposes of the survey, to "develop a survey measuring the frequency and aspects of meaningful coincidence in our lives." They were informed that the survey would likely take 15 minutes. Potential participants were notified that their participation in the online survey would give them a chance at one of 20 \$20 cash prizes. Voluntary participation was emphasized.

Participants

A total sample of 681 individuals participated across two data collections. Demographics from the two samples are comparable and combined across both data collections. Demographic information was not collected from all participants; available demographic information is reported as follows. For those reporting age (n = 634), the mean age was 28.6 (SD = 11.2). For those reporting gender (n = 634), 18.1% were male and 81.9% were female. For those reporting their racial background (n = 636), 89.8% were white, 2.8% were Asian, 1.7% were black, and 1.4% were Hispanic. Of those reporting religious affiliations (n = 606), the three largest groupings were Protestant Christian (36%), Roman Catholic (18.5%), and agnostic/atheist (19.3%).

Instruments:

Weird Coincidence Scale

The Weird Coincidence Scale was constructed by the authors to measure the frequency of self-reported coincidence experiences in a "normal" population. The scale was structured with a story of a Weird Coincidence at the beginning, followed by items assessing the frequency of specific experiences, which was then followed by items assessing their analysis and interpretation. These items were constructed based on stories collected from other sources as well as examples from the literature.⁸ Finally, participants were asked to provide examples from their own experiences. Participants were given the following story to prompt their understanding of the definition of synchronicity:

"Kelly is a 28-year-old female member of Alcoholics Anonymous. She was struggling with a great deal of anger and resentment focused on her father, an active alcoholic with whom she has been with from 10 years. She described their relationship as one of emotional turmoil and 'dysfunctional.'

One day, as she was reading the text, Alcoholics Anonymous, she came across a passage that described alcoholics as sick people and how we would not treat a cancer patient or someone suffering from another serious medical illness with disdain and resentment. She suddenly had this 'revelation' about her father and felt the anger and resentment melt into empathy and concern. She realized how he was suffering and ill from his alcoholism just as she had been suffering from the same illness. She said, "I felt like all those feelings that I carried around my dad were gone. I guess I see this now as God removing my resentments." She suddenly "felt a sense of peace." As she pondered these new feelings and perceptions her cell phone rang; it was her father calling. The two had been so alienated that she didn't even think he knew her phone number. Surprisingly, he confessed to her how important she had been in his life, how sorry he was, how he cared about her, and would do anything to help her. He wept as he spoke openly about their troubled relationship.

Kelly later told the interviewer that the coincidence of her father calling just at the moment when her heart was opening up struck her as 'amazing.' "9

The survey asked participants to report the frequency with which they experience specific coincidences. Fiftythree of these items were presented in the first survey. Following the first data collection, the item pool was shortened to 42. Items which did not perform well (had multiple factor loadings or loadings of less than .4) were eliminated. Participants were asked to respond to the items on a 5-point Likert scale, from None/ Never to Very Much/Frequently. Examples of items on this portion include: "I run into a friend in an out-of-the-way place," and "I am in the right place at the right time to rescue somebody."

Of these items, six questions (in both surveys) that differed in content were presented last. These were analysis/interpretation (A/I) items. These items tapped beliefs about the source ("I believe fate works through meaningful coincidences") and impact ("Meaningful coincidences help me grow spiritually") of synchronistic experiences. Response choices for these items were presented on a 5-point Likert scale (on the first survey), ranging from Strongly Disagree to Strongly Agree and included a N/A option. The second survey presented response choices along a 5-point Likert scale from Strongly Disagree to Strongly Agree, but with no N/A option.

The Multidimensional Measure of Religiousness/Spirituality for Use in Health Research

The Multidimensional Measure of Religiousness/Spirituality for Use in Health Research.¹⁰ This measure was developed to examine key domains of

TABLE 1.				
Mean Frequency by Category				
Change and Direction	Overall Mean			
I am introduced to people who unexpectedly further my work/career/education.	2.82			
In attempting to reach a goal, obstacle after obstacle prevented me from continuing on a path, which I later discovered was better for me.	2.77			
I advance in my work/career/education through being at the "right place- right time."	2.71			
Meaningful coincidences change my life.	2.60			
A series of coincidences points me toward taking a particular action in my personal life, career, or education.	2.59			
Meaningful coincidence helps determine my educational path.	2.43			
Meaningful coincidence validates my course of action.	2.41			
Love Connection				
I experience strong emotions or physical sensations that were simultane- ously experienced at a distance by someone I love.	2.19			
After a loved one died, I have received some indication that this person was communicating with me.	1.93			
I am in the right place at the right time to rescue somebody.	1.83			
I discover that I felt pains and/or anguish as someone I loved was dying in another place.	1.74			
Think/emotion				
I think of calling someone, only to have that person unexpectedly call me.	3.16			
When my phone rings, I know who is calling (without checking the cell phone screen or using personalized ring tones).	3.03			
I run into a friend in an out-of-the-way place.	2.85			
I think about someone, and then that person unexpectedly drops by my house or office or passes me in the hall or street.	2.78			
Dreams				
I have dreams that predict future events.	2.40			
I have dreams that supply me with specific information about my personal life, career, or education.	2.28			
I have dreams, and later find out that events in my dreams actually happened around the same time that I had dreamt them.	2.17			
I have dreams about unknown persons whom I then subsequently met.	1.80			
Think/idea				
I think about a song and then hear it on the radio.	2.96			
The same name or word has appeared several times in close proximity in different contexts.	2.61			
I think of an idea and hear or see it on radio, TV, or internet.	2.61			
I think of a question only to have it answered by external media (ie, radio, TV, people) before I can ask it.	2.45			
A certain number regularly appears in my life. And that number is	2.25			
I experience a series of numerically-related coincidences (for example, buying something for \$1.44 before taking flight #144 at 1:44 pm).	2.00			
Analysis/interpretation				
I believe God speaks to us through meaningful coincidences.*	3.26			
I believe fate works through meaningful coincidences.*	3.18			
I believe coincidences can be explained by the laws of probability or chance.*	3.13			
Meaningful coincidences help me grow spiritually.* I believe that human minds are interconnected.*	3.09			
I feel that meaningful coincidences point to a connection between my internal and external worlds.*	3.01			
After experiencing meaningful coincidence, I analyze the meaning of my experience.	3.07			

*n = 343; responses ranged from I (strongly disagree), 2 (disagree), 3 (neither agree or disagree), 4 (disagree), to 5 (strongly

religiousness and spirituality and how they relate to physical and mental health. Findings from the General Social Survey, an annual survey of Americans by the National Opinion Research Center, indicated that all the domains were endorsed by the respondents, the items formed reliable indices within each domain, and the domains were only moderately correlated with one another, indicating that they are distinct constructs.¹¹

The domains of the Brief Multidimensional Measure of Religiousness/ Spirituality (BMMRS) used in the current study and what each domain measures are as follows:

- 1. Daily spiritual experiences (DSE) (6 items, alpha = .91). Measures an individual's perception of the transcendent (God, the divine in daily life and the perception of interaction with, or involvement of, the transcendent in life);
- 2. Meaning (2 items). Measures the process of search for the religious meaning.
- 3. Religious and spiritual coping (7 items). Measures two patterns of religious/spiritual coping. The first pattern is positive religious/spiritual coping (3 items), which views God/Higher Power as benevolent and supportive. The second pattern is negative religious/spiritual coping (3 items), which views God/Higher Power as punishing and abandoning. The seventh item asks participants to rank their extent to which their religion is involved in dealing with stressful situations; and
- 4. Overall self ranking (2 items). Measures how religious and spiritual participants consider themselves to be on a 4-point Likert scale ranging from 1 (not at all) to 4 (very).

RESULTS

Several broad classes of coincidence experiences were created from these results. While some coincidences clearly relate to career and work-related situations, ^{6,7} others deal with love and re-

TABLE 2. Correlations between the Sum of the Frequency Items on the WCS (n = 36) and the Scales of the BMMRS						
Sum of synch frequency items	.32**	.31**	.31**	.15**	.35**	
* DSE = daily spiritual experience						
** P < .01						

lationships. In order to gain an understanding of the relative frequency with which individuals experience classes of coincidence experiences, items were grouped according to the life domain in which the coincidence impacts. Not all items are placed in these categories; these groupings represent conceptual relationships between like items. These items clustered around six domains:

- Change and Direction, which relates to decision-making, especially in important life domains such as work or education;
- Love Connection, which relates to coincidences dealing with interpersonal connectedness;
- Think/emotion, which deals with thoughts corresponding to external events, with a specific focus on needs or interpersonal relationships;
- Dreams, with items pertaining to a dream's predictive qualities;
- and Think/idea, thinking of something and it happens with a focus on information and ideas. Items and categories, with their respective means, are presented in Table 1 (see page 268).
- Analysis/interpretation, the final category, pertains to an individual's belief about the origins or importance of coincidence experiences. The questions range from a belief that coincidences can be simply explained by probability theory to the belief that God speaks to us through coincidences.

In addition, correlations were computed between the sum of the frequency items on the WCS (n = 36) and the scales of the BMMRS (see Table 2).

DISCUSSION

The change and direction category offers the most practical implications. Individuals reporting high frequencies in this category are noticing coincidences in the realms of work and education. Those endorsing high frequencies of these coincidences may also be more likely to take advantage of everyday coincidences. These individuals may be taking advantage of "planned happenstance,"11 a term coined in the vocational counseling literature. The highest mean scoring item in this category was "being introduced to people who further the individual's work or education." This item reflects an openness to discuss career possibilities with individuals, met through coincidence. The lower-scoring items included coincidences validating a course of action and determining an educational path. Endorsement of these items may reflect a higher degree of faith and confidence in coincidence, because these individuals would weigh a coincidence highly when making major decisions.

The love connection items dealt with coincidences surrounding telesomatic experiences, 12 wherein one is able to sense physically the experiences of an emotionally-close individual at a distance. These experiences might be expected to be somewhat rare because the baseline frequency of high intensity feelings is significantly lower than the rate of telephone calls. For the most part, the participants rated these experiences as being fairly infrequent. The top scoring item ("I experience strong emotions or physical sensations that were simultaneously experienced at a distance by someone I love," was perhaps different in its content, as it included emotions in addition to purely physical sensations.

The think/emotion category involved interpersonal encounters in which an individual's thoughts of someone corresponded with their physical presence or communication. Common consensus is that these experiences are relatively frequent, 13 and our frequencies support this assumption. For many individuals, the experience of "telephone telepathy" is a common coincidental experience. These experiences have potential to enrich relationships. Of note, these experiences, in terms of mean frequency ratings, are the most common amongst the sample.

The dream items deal with the use of dreams as a source of information as well as a prediction for the future. Ostensibly, these experiences appear to be some of the "weirder" experiences and may be less likely to be endorsed. This area is complicated by the mechanics of sleep, given that an individual can dream a great number of dreams each night and not remember any or all of their dreams. Many statisticians point to coincidences as being natural results of probability using the argument of dreams — we have so many dreams a night that one of them will come true by virtue of probability. Our sample did not rate these experiences as being particularly frequent. Perhaps other variables are also strong in this realm — for instance, our reasoning that it was "just a dream" may overwhelm intuition that the dream means or predicts something.

The think/idea category referred to specific thoughts corresponding to the specific content of various forms of media (radio, TV, internet, print). These events may be experienced as cognitively stimulating, although the degree of emotionality in the event is likely to vary from event to event and from individual to individual. These events cover a range of thought-environment content.

The analysis/interpretation items go beyond personal interpretations of specific experiences to determine individuals' beliefs about the sources of coincidences. Interestingly, the most strongly endorsed explanations for coincidences were God and fate, followed by probability. Respondents endorsed less strongly the interconnected of human minds and minds connected to the environment. Many of the respondents also stopped to consider the meaning of their personal coincidences.

These items may contain some practical value in that they allow for an assessment of willingness to notice coincidence as well as to take advantage of it (eg, for spiritual growth). Although coincidences are quite frequent, it is contingent on the person to notice the event as well as find use in it.

In addition to the frequency-related results, there were also significant correlations between the frequency items and all scales of the BMMRS. This implies that individuals who report more coincidences also tend to report more spiritual experiences. Individuals who are highly spiritual may use coincidence

experiences to further their own growth. Given the overlap between coincidence and spirituality, the discussion of coincidences may widen. If individuals believe coincidences are a means by which God intervenes in their lives, for example, they may become of interest to a wider range of individuals. Open questions remain: how are these experiences integrated into regular religious practice? How do individuals interpret their experience when following coincidence leads them to trouble? What is the specific interpretation process and how may it differ between religious and non-religious individuals?

A limitation of this data collection is that the individuals participating were self-selected and were possibly members of a subset of the population having a natural interest in coincidences. Thus, frequencies may be an overestimate of the frequency with which an "average" person would experience weird coincidences.

With these limitations in mind, several conclusions can possibly be drawn. One broad conclusion noted from the data is that weird coincidences are commonly noticed and used. Although we label these experiences as being "weird," this study suggests that these experiences are relatively normative and can occur with varying frequencies and in varying domains throughout one's life course. The Weird Coincidence Scale is a first attempt at sampling from coincidence experiences largely to determine the frequence with which individuals experience coincidences. ¹⁴

REFERENCES

- Jung CG. Synchronicity: An Acausal Connecting Principle. Princeton, NJ: Princeton/ Bollingen: 1960.
- Clark M. Synchronicity and poststructuralism:
 C.G. Jung's secularization of the supramundane.
 Unpublished thesis. 1998.
- Henry J. Coincidence experience survey. Journal of the Society for Psychical Research. 1993;59:97-108.
- Bressan P. The connection between random sequences, everyday coincidences and belief in the paranormal. Applied Cognitive Psychology. 2002;16:17-34.
- Meyer MB. Role of personality and cognitive variables in the reporting of experienced meaningful coincidences or "synchronicity." San Francisco, CA: Saybrook Institute. Unpublished doctoral dissertation; 1989.
- Betsworth DG, Hansen J-IC. The categorization of serendipitous career development events. *Journal* of Career Assessment. 1996;4:91-98.
- Bright JE, Pryor RG Harpham L. The role of chance events in career decision making. *Journal* of Vocational Behavior. 2005;66:561-576.
- Cameron MA. Synchronicity and spiritual development in alcoholics anonymous: A phenomenological study. St. Louis, MO: St. Louis University. Unpublished dissertation; 2004.
- Belitz C. Lundstrom M. The Power to Flow: Practical Ways to Transform Your Life with Meaningful Coincidence. New York: Harmony Books; 1997.
- Fetzer Institute/National Institute on Aging Workgroup. Multidimensional Measurement of Religiousness/Spirituality for Use in Health Research. Kalamazoo, MI: Fetzer Institute; 1999.
- Guindon MH, Hanna FJ. Coincidence, happenstance, serendipity, fate, or the hand of God: Case studies in synchronicity. Career Development Quarterly. 2002;50:195-208.
- Mann BS, Jaye C. 'Are we one body?' Body boundaries in telesomatic experiences. Anthropology & Medicine. 2007;14:183-195.
- Sheldrake R, Smart P. Experimental tests for telephone telepathy. *Journal of the Society for Psychi*cal Research. 2003;67:184-199.
- Coleman S, Beitman BD. Characterizing high frequency coincidence detectors. *Psychiatr Ann.* 2009;39(5):271-279.