# 1 CHAPTER 1

# Six Degrees of Bob Cialdini and Five Principles of Scientific Influence

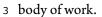
- 4 MARK SCHALLER, DOUGLAS T. KENRICK,
- 5 AND STEVEN L. NEUBERG

You know the Kevin Bacon game. If you were in a movie with Kevin Bacon, your Bacon number is one; if you were in a movie with some8 one else who was in a movie with Kevin Bacon, your Bacon number is 2;
9 and so on. Here's an example: Kevin Bacon was in "A Few Good Men" with
10 Tom Cruise; Cruise was in "The Last Samurai" with Chad Lindberg;
11 Lindberg was in "My Big Break" with Mark Schaller. Ergo: Schaller has a
12 Bacon number of 3. Being egocentric, Schaller prefers to think that Kevin
13 Bacon has a Schaller number of 3.
14 The Erdös game is the math nerd's version. Paul Erdös co-authored

The Erdös game is the math nerd's version. Paul Erdös co-authored nearly 1,500 articles with over 500 collaborators, who themselves co-authored many articles with many others, and so forth. Just as anyone with a single screen credit can be linked to Kevin Bacon through a series of joint-movie-appearance links, almost any mathematician can be linked to Erdös through a series of co-authorship links. Although he's no mathematician, Schaller has an Erdös number of 6. Or, we could say that Erdös has a Schaller number of 6. So does Albert Einstein. (Kenrick and Neuberg both have Schaller numbers of 1 and so, by this idiotic index, are more successful than either Albert Einstein or Kevin Bacon.)

What do these tenuous connections to Erdös and Bacon have to do with Bob Cialdini and his widespread influence on fields as diverse as psychology, business, political science, and economics? Lurking beneath the silly surface of the Schaller number are some fundamental truths about human

- 1 nature and the scientific enterprise required to reveal it. These truths are
- 2 lessons learned from Cialdini himselfand uniquely illuminated within hi



## 4 LESSON NUMBER ONE: CONNECTIONS MATTER

- 5 Among Cialdini's many prominent contributions is a line of research on
- 6 basking in reflected glory ("BIRGing"). This research illuminates the ways
- 7 in which people strategically advertise even minimal connections to suc-
- 8 cessful others (Cialdini, Borden, Thorne, Walker, Freeman, & Sloan, 1976;
- 9 Cialdini & Richardson, 1980). Here's an example: Shortly after Schaller
- uncovered his Bacon and Erdös numbers, about 30 other people (pretty
- 11 much everybody he encountered over the next 2 days) found out as well.
- 12 Cialdini's BIRGing research is typically mentioned to illustrate the subtle
- 13 ways that people strategically manufacture positive public images. If you
- 14 dig a little deeper, though, these studies illustrate even more profound
- 15 truths about the human condition.
- 16 Why does Schaller find it gratifying to declare that Kevin Bacon has
- 17 a Schaller number of 3? If you guessed it has to do with the self-serving
- 18 consequences of symbolically associating with the winners in the world,
- 19 you would be partially correct; but there's more to it than that. O.J. Simpson
- 20 and Charles Manson have Schaller numbers of 3 and 4, respectively, and
- 21 Schaller was just as quick to tell us about those connections too. Simpson
- 22 and Manson don't exactly trigger a cascade of warm and friendly feelings.
- 23 So, why would Schaller publicly announce these unsettling (and hardly self-
- 24 serving) connections?
- Because connections matter, that's why. In the 1970s, psychologists
- 26 talked a lot about self-serving motives. It's not surprising, then, that self-
- 27 esteem provided the motivational oomph emphasized in the BIRGing
- literature. Since then, our motivational horizons have expanded consider-
- 29 ably (e.g., Kenrick, Griskevicius, Neuberg, & Schaller, 2010). There is now
- 30 an enormous body of evidence pointing to a fundamental human need for
- interpersonal connection, and to its important consequences for human
- 32 behavior (MacDonald & Leary, 2005; Maner, DeWall, Baumeister, &
- 33 Schaller, 2007). When folks talk about this need, they don't usually think of
- 34 Cialdini's BIRGing studies. They should. Long before it was fashionable,
- 35 Cialdini's studies showed—in a novel and scientifically sexy way—that
- 36 even tenuous social connections really matter.
- 37 Mere interpersonal connection is a powerful force, not just psychologi-
- sa cally but sociologically too (Barabási, 2002; Granovetter, 1973; Watts, 2003).
- 39 Psychologists haven't typically participated in scientific conversations about

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the sociological implications of interpersonal connections, but there are a few exceptions (e.g., Travers & Milgram, 1969). Of particular note is recent work by Bibb Latané and his colleagues on *dynamic social impact theory* (Latané, 1996, 1997; Nowak, Szamrej, & Latané, 1990; see also Harton & Bourgeois, 2004).

Dynamic social impact theory articulates the mechanisms through which local acts of interpersonal influence shape and reshape the attitudes and opinions of entire populations. This happens only because, within any human population, everyone is connected through a series of interpersonal links to everyone else. Because of these Baconesque links, individual actions reverberate through entire populations to exert global consequences. Because of the power of connection, individual psychology creates human culture.

There are further consequences too. After attending one of Latane's 13 famous Nags Head conferences, Kenrick integrated the dynamic social 14 impact framework with an evolutionary perspective on individual decision-15 making. The result was a set of novel insights about simple evolved biases that contribute to the emergence of different group geometries and differ-17 ent cultural norms, depending on the specific goals that individuals seek to achieve when interacting with one another (Kenrick, Li, & Butner, 2003). Individuals' decisions—whether focused on self-protection, mating, status, or familial relations—are rarely made with any awareness of the fact that, collectively, these decisions can exert a societal impact. And yet, 22 because of the power of mere interpersonal connection, they do.

The power of connection is on display in the mathematical study of social networks, in the fundamental human need for belongingness, and in Cialdini's BIRGing studies. It's arguably the single most important reason why the psychology of social influence—and the science of social psychology—matters on a global scale.

## 29 LESSON NUMBER TWO: REAL LIFE IS SCIENCE'S NATURAL DOMAIN

More than perhaps any contemporary social psychologist, Bob Cialdini has profitably indulged his inner anthropologist. Approximately 95% of published psychological studies are stimulated by previous publications. And probably 95% of those studies have no enduring impact. (OK, We're making up those numbers, but we bet they're not that far off). In contrast, Cialdini's research has often been stimulated by his canny observations of real people doing real things in their real lives; and—no coincidence—this research has been especially influential.

Some of Cialdini's forays into the anthropology of ordinary life were expertly planned. He spent one sabbatical going "undercover" to observe

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- actual influence professionals (waiters, car dealers, pyramid scammers)
- engaging in acts of professional influence. His observations led to many
- classic experiments on compliance techniques and the psychological pro-
- cesses that they exploit (Cialdini, 2008). Other lines of research reflect
- a scientific mind acutely prepared to take advantage of interesting accidents.
- The BIRGing studies, for example, were inspired by a football game. Cialdini
- had been poring over some underwhelming results from an experiment
- on attitude change, frustrated by an insufficiently substantial mean differ-
- ence on a standard 7-point scale, when he wandered out of his office and
- into a football stadium at game time:
- The crowd was suddenly up and shouting, and yelling encouragement to their favorites 11
- below. Arcs of tissue paper crossed overhead. The university fight song was being 12
- 13 sung. A large group of fans repeatedly roared "We're number one!" while thrusting index
- fingers upward. I recall quite clearly looking up from thoughts of that additional half 14
- 15 unit of movement on a 7-point scale and realizing the power of the tumult around
- me. "Cialdini," I said to myself, "I think you're studying the wrong thing." (Cialdini, 1980, 16
- 17 p. 22; emphasis in original)
- For most of us, that experience would have been a distraction rather
- than a scientific stimulant. If it was someone else in Cialdini's shoes that
- day, we might not have the pleasure of talking about BIRGing at all. 20
- Here's the point: Cialdini doesn't just read academic articles or engage 21
- in arid exercises in logical deduction to arrive at research hypotheses— 22
- he also pays attention to real life. 23
- That seems simple, but it's not. Most of us have had only sporadic 24
- success in doing so. When we've been able to, it's paid off. Kenrick was 25
- once asked to lecture on attraction to a single's group. Afterwards, several
- middle-aged women asked if there was any scientific reason why middle-27
- aged men were so interested in younger women. They handed him a pile of
- singles newspapers, which inspired an intensive study of singles ads from
- the Netherlands, Germany, and India, and then of marriages from around
- the world and from different historical periods. One of the resulting publi-
- cations (which shows that sex differences in age preferences are a human
- universal; Kenrick & Keefe, 1992) has become Kenrick's most-cited empir-33
- ical paper ever. 34

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- Neuberg too has discovered the value of making an occasional field trip 35
- outside of his university office. He once published an article showing 36
- that, contrary to popular belief, Valentine's Day tends to be bad for most
- romantic relationships (Morse & Neuberg, 2004). The study was inspired
- by an out-of-the-blue conversation with a woman upset by her personal
- Valentine's Day massacre.
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And here's one more story: Years ago, stimulated by a brief encounter with a movie star in a Montana health food store, Schaller started a research project on the psychological consequences of fame, which culminated in a weird little one-off article in the *Journal of Personality* (Schaller, 1997). Because that article somehow came to the attention of a filmmaker, Schaller's talking head now occupies about 30 seconds in the documentary film "My Big Break"—enough time for his name to appear in screen credits alongside those of actual actors, like Chad Lindberg. Thus, Schaller owes his Bacon number entirely to the fact that once, in a very modest way, he did what Cialdini does brilliantly all the time: Recognize potentially interesting and understudied psychological phenomena lurking within the great blooming, buzzing confusion of everyday life.

Unlike our own stumbling visits into the real world, Cialdini's thoughtful approach represents an underappreciated form of scientific genius.
It's a genius that applies not merely to scientific *inspiration*, but to scientific *explanation* as well. A piece of research inspired merely by previous empirical findings is most likely doomed to do little more than explain those findings in greater detail. A line of research inspired by real human behavior observed in real life is much more likely to apply to, and explain, real human behavior in real life, too.

#### LESSON NUMBER THREE: ANYTHING GOES

Although Schaller's article on the psychology of fame has had almost no scientific impact, Schaller is unusually fond of it anyway. The reason is not just because of its connection to his Bacon number, but also because the study itself employed methods that are messy and weird and even laughably unrigorous. Schaller's other personal favorites (several of which include things other than individual people as the units of analysis; Schaller, Conway, & Tanchuk, 2002; Schaller & Murray, 2008) don't exactly fit the prototypical profile of rigorous experimental social psychology either.

The same applies to Kenrick. His publications include many whose methods might be characterized as wacky and weird—a species apart from standard laboratory-based experimental social psychology. We've already noted
that one of his most cited articles included data obtained not from research
participants but from personal ads ("SWF, 34, attractive, seeks..."; Kenrick
Keefe, 1992). Another of his favorites is a paper reporting results generated not by actual people, but by computer simulations (Kenrick et al., 2003).
And, although Kenrick can't bask in the reflected glory of Kevin Bacon, he
did proudly publish a study employing Farrah Fawcett and the rest of
"Charlie's Angels" as a methodological device (Kenrick & Gutierres, 1980).



- Both Schaller and Kenrick were trained as experimental social psycho-1 logists; they received that training from a man—Bob Cialdini—who has received numerous awards for his exceptional abilities to deploy, and teach, the methods of experimental social psychology. So, did they forget the lessons learned from the master of experimental methods? Have their heads gone soft? Were they childishly rebelling against a father figure who they'd have been much wiser to emulate? At the risk of sounding defensive, we think that, rather than reflecting forgetfulness, soft-headedness, or psychoanalytic cliché, both Kenrick and Schaller have been attracted to "alternative" empirical methodologies because they learned to appreciate a deeper methodological and epistemological lesson lurking within Cialdini's approach to social psychological research. The philosopher Paul Feyerabend stated the lesson like this:
- 14 Science is an essentially anarchistic enterprise: theoretical anarchism is more humani-
- 15 tarian and more likely to encourage progress than its law-and-order alternatives....
- The only principle that does not inhibit progress is: anything goes. (Feyerabend, 1975, 16
- 17 p. 23, emphasis in original)

No one would characterize Bob Cialdini as an anarchist exactly. 18 Nevertheless, Cialdini's body of research exemplifies the Feyerabendian philosophy. On the one hand, Cialdini has pursued many empirical investigations employing standard experimental methods within ordinary psychological laboratories. (An example is his influential program of 22 research on helping behavior; Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Cialdini & Kenrick, 1976; Cialdini, Schaller, Houlihan, Arps, Fultz, & Beaman, 1987). But, on the other hand, many of Cialdini's studies 25 have been conducted on sidewalks, stairwells, parking lots, or in national parks and hotel bathrooms. And the participants were real people going about their real lives, thoughtlessly tossing a bit of trash onto the sidewalk or stealthily pocketing a chunk of petrified wood from a national monument. 30

Field studies aren't easy to do. They impose considerable constraints 31 on what one can manipulate, measure, and control. They force methodological compromises. Consequently, the conclusions they yield are rarely as inferentially airtight as those emerging from the lab. In a discipline that 34 values variables measured in milliseconds and voxels, most social psychologists don't even consider leaving the lab. But while everyone else is parking their participants in front of computer screens or sliding them into multimillion-dollar fMRI machines, Cialdini is counting dirty towels in hotel bathrooms—and publishing interesting articles about them (Goldstein, Cialdini, & Griskevicius, 2008).

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- Cialdini's affection for field studies attests not only to his interest in testing hypotheses on real people in their real lives, but also to his deeper
- commitment to methodological diversity. He has demonstrated the same
- open-minded attitude to conceptual sources, deriving ideas from not only
- from a variety of social psychological theories, but also from cognitive
- psychology, sociology, and the human evolutionary sciences (e.g., Cialdini
- & Kenrick, 1976; Cialdini, Kalgren, & Reno, 1991; Griskevicius, Cialdini,
- & Kenrick, 2006). In all aspects of his science, Cialdini has masterfully—
- and influentially—demonstrated the benefits of Feyerabend's motto:
- Anything goes.

#### LESSON NUMBER FOUR: BE A FOX

- Most researchers apply their talents to very specific areas of inquiry: person
- perception, say, or attitude change or close interpersonal relationships.
- Or, they apply a single theoretical perspective to everything. They are
- like the hedgehog in the classic aphorism (commonly attributed to
- Archilochus) that "The fox knows many things, but the hedgehog knows
- one big thing." This hedgehog-like focus is pragmatic at a personal level.
- (It takes time and effort to develop expertise in any single domain of inquiry;
- if one pursues research across very different domains, one runs the risk of 19
- being a dilettante.) But it limits the scope of one's potential influence.
- Happily, being a hedgehog has not been Cialdini's style. He is a fox: 21
- He knows many things. The analogy breaks down a bit, perhaps, because 22
- Cialdini's foxiness involves knowing many big things. Still, Cialdini's foxi-23
- ness is integral to his considerable scientific impact. 24
- Cialdini's impact results not simply from his seminal contributions 25
- to the study of basking in reflected glory, or mood and helping behavior, 26
- or the psychology of social norms, or the many other psychological pro-
- cesses affecting behavioral compliance, attitude change, persuasion, and 28
- social influence more broadly. Nor does his impact result simply from the
- many ways in which he has applied fundamental conceptual insights to 30
- improve human welfare and resolve social problems (e.g., littering, pollu-
- tion, and environmental degradation in general; Cialdini, 2003). Nope.
- In addition to all the things Cialdini has done, his impact results from what
- he has been: An example of a highly flourishing fox. He's shown that, even
- within an academic culture that encourages hedgehoggery, one can still
- foxily follow one's whims all over the intellectual map—and do so without
- succumbing to dilettantism and with extraordinary scholarly success. 37
- Whether intentional or not, Cialdini's fox-like approach to scholarship 38
- exerts a beneficial influence on his graduate students and collaborators.

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Among other adventures, Neuberg has conducted research on impression formation, prejudice, stigma, self-fulfilling prophecies, physical attraction, relationships, prosocial behavior, religion, economic decision-making, and stereotype threat. He has employed cognitive, motivational, anthropological, and evolutionary perspectives in doing so. Kenrick too has employed—and attempted to integrate—a wide range of meta-theoretical perspectives in his studies on personality, kinship, romantic attraction, anticonformity, creativity, contrast effects, religious behaviors, one-night stands, mate preferences, memory, homicidal fantasies, visual attention, and consumer behavior. Schaller has as well. And, in addition to collaborating with Neuberg and Kenrick on some of the projects listed above, Schaller has also conducted research on such diverse topics as the psychological consequences of fame, the popularity of folktales, and the effects of pathogen prevalence on personality. Even within his allegedly more programmatic interest in stereotypes and prejudices, Schaller has flirted with a hard-core information-processing approach, had a love affair with a hotter, wetter approach informed by principles of evolutionary biology, 17 and enjoyed a dalliance with the dynamic consequences of interpersonal communication. 19

It was that dalliance with dynamical systems that led to a collaboration between Schaller and Bibb Latané (Schaller & Latané, 1996). And because Latané has co-authored articles with actual mathematicians (Lewenstein, Nowak, & Latané, 1990), that dalliance therefore accounts for Schaller's acquisition of a misleadingly low Erdös number. Thus, the fact that Schaller has both a Bacon number and an Erdös number is emblematic of Cialdini's tacit encouragement to avoid any temptation to know just one big thing, and instead to be a fox.

# 28 LESSON NUMBER FIVE: MARKETING MATTERS

Schaller's Erdös number, though meaningless, is at least based on some sort of scientific product. The Bacon number, though, has no scientific currency at all. One could argue that the hours Schaller spent being filmed for "My Big Break" would have been more sensibly devoted to actual scholarly work. From this perspective, Schaller's Bacon number isn't just a laughable bit of trivia, it's an index of wasted time.

The same might be said any time any of us chats with a journalist or appears on television. Sometimes these interactions lead to the dissemination of serious scientific information, but often not. Neuberg had the unhappy experience of witnessing carefully articulated conclusions from his evolutionarily informed research on prejudice (Cottrell & Neuberg 2005)

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become distorted into grossly misleading headlines ("Prejudice Is Hard-Wired into the Human Brain, Says ASU Study"). And Kenrick, whose empirical research on sex and mating is catnip for television talk shows, has seen plenty of potentially productive time disappear when media appearances turned out to focus more on sensationalism than serious science. (He once filmed an interview about evolution and mate choice for a BBC documentary, only to have his answers interspliced with semi-pornographic scenes from a nudist camp called Naked City).

But there's a more positive perspective on media attention. Even if that coverage fails to promote scientific knowledge, it is emblematic of something scientifically good: When newspaper writers and television producers come calling, it suggests that we have produced scientific products that, for whatever reason, people have noticed.

Science is a cumulative enterprise. No scientific theory or empirical finding can hope to have an impact on that cumulative enterprise unless noticed by others. Before it can be noticed, of course, it has to be published; and when top journals have rejection rates of 90%, that's not easy. But publication alone isn't enough. Publication doesn't guarantee attention. Thousands of psychology articles are published every year, and only a tiny percentage of those get noticed in any meaningful way. By one estimate, only 10% of published articles ever get cited even once—a statistic that prompted one philosopher of science to observe that "publishing a paper is roughly equivalent to throwing it away" (Hull, 1988, p. 360).

And so, even in science, marketing matters. Scientists must not only deploy the conceptual and methodological skills to produce novel scientific products, they must also package that product in a way that penetrates the competitive scientific marketplace. Here again, we bow before Bob Cialdini—who has a masterful knack for selling science.

We suspect that Cialdini's considerable scientific influence has been abetted, in part, from his skill in sculpting scientific articles that tell compelling stories. Many scientists fail to do that; they just pile on the results. This is short-sighted. To actually compete successfully in the hypercompetitive scientific marketplace, results need to be packaged and presented so that their story (the specific reason why they make a meaningful contribution to science) is clear, memorable, and sufficiently interesting to demand to be retold to others. Daryl Bem (1987, p. 173) advises psychological scientists to "Think of your data as a jewel. Your task is to cut and polish it, to select the facets to highlight, and to craft the best setting for it." Cialdini is a master jeweler.

It helps to build some "hooks" into the story too. Given the vast number of scientific products that glut the market, readers aren't likely to read an article unless something about it reaches out and demands their attention.

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- 1 Superficial details matter. For instance, it helps enormously to provide
- 2 readers with a mnemonic device that captures the essence of the phenom-
- enon (e.g., "door in the face," "social proof," "spyglass self"; Cialdini, 2008;
- 4 Cialdini, Vincent, Lewis, Catalan, Wheeler, & Darby, 1975; Goldstein &
- 5 Cialdini, 2007). Imagine if Cialdini had described a subtle strategy of public
- 6 image management as, say, "a subtle strategy of public image management."
- 7 Would it have had such an impact? Probably not. Smartly, he called it "bask-
- 8 ing in reflected glory," which is a lot more memorable.
- 9 An article's title also matters a lot. People rarely read an article—or even
- 10 its abstract—if they don't first find something interesting in its title. Poetic
- .1 devices and clever wordplay increase the number of readers who read on.
- 12 "Peacocks, Picasso, and parental investment . . ."; "Going along versus going
- 13  $\,$  alone  $\ldots$  "; "A room with a viewpoint  $\ldots$  ": These and other phrases like them
- 14 appear in titles above Cialdini's name (Goldstein et al., 2008; Griskevicius,
- 15 Cialdini, & Kenrick, 2006; Griskevicius, Goldstein, Mortensen, Cialdini, &
- 16 Kenrick, 2006). None is necessary to describe the findings reported within.
- 17 But all are linguistically entertaining and help to reel the reader in.
- 18 The purist may argue that science should be above this sort of linguistic
- 19 frivolity and marketing. We disagree. Scientific progress depends on com-
- 20 munication and dissemination of scientific findings. To the extent that scien-
- 21 tists can—like Cialdini—find ways to make their work more communicable,
- 22 so that it is noticed and used by others, they are doing their job.

# 23 LESSON NUMBER ONE REVISITED: CONNECTIONS MATTER

- The Kevin Bacon Game works because movie-making is an intensely collaborative enterprise. So is science. Successful research depends on
- 26 researchers and research assistants, on research participants, and on rooms
- 20 researchers and research assistants, or research participants, and or research
- 27 full of people behind the scenes (e.g., grant review panels, Institutional
- 28 Review Boards, etc.). The connections between these people are instru-
- 29 mental to scientific progress.
- 30 Some kinds of interpersonal connection matter more than others.
- Intellectual collaborations indicated by co-authorship are especially impor-
- 32 tant. Sometimes the connections arise almost by chance, such as when
- 33 Kenrick (who at the time was a first-year graduate student in clinical
- 34 psychology) took a required course in social psychology from someone
- 35 he'd never heard of before—a new assistant professor named Cialdini.
- 36 Sometimes the connections emerge in a more planful way, such as when
- 37 Schaller applied to graduate school with the specific intention of work-
- 38 ing with Cialdini, or when Neuberg accepted a job offer with the happy
- 39 knowledge that Cialdini would be his colleague. These immediate academic

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- 1 connections have stimulated many fruitful collaborations between Cialdini
- 2 and Kenrick and Schaller and Neuberg (in varying subsets), and between
- 3 many more of Cialdini's students and colleagues too. The impact of these
- 4 connections—and thus the impact of Cialdini's scientific influence—
- 5 doesn't end there. It extends outward to the many hundreds of additional
- 6 students and collaborators in each of our immediate academic orbits;
- and it then extends further still to touch many thousands—perhaps even
- millions—of additional scholars in a complex web of interconnection.
- The inescapable point is that interpersonal connections have a pervasive guiding influence on the research projects that shape any scientific field.
- These connections shape careers, too. It is for that reason that we—Schaller
- 12 and Kenrick and Neuberg—each feel very glad, and lucky, to have a Cialdini
- 13 number of 1.



