

Special Passings Section

Robert B. Zajonc, December, 2008

Robert Zajonc received a Ph.D. from the University of Michigan in 1955. Born in Łódź, Poland in 1923, following World War II, Zajonc attended the University of Paris/La Sorbonne, and arrived at the University of Michigan in 1948 as an undergraduate.

Zajonc's admission to the University of Michigan was probationary, but, as Zajonc later claimed, "they decided that I was OK and let me stay." While at the University of Michigan, he earned a B.A. (1950), an M.A. (1952) and a Ph.D. (1955).

The lion's portion of Zajonc's career was spent at the University of Michigan. He joined the Research Center for Group Dynamics at the Institute for Social Research in 1954 as a Research Associate, became an assistant professor in Psychology in 1956, an associate professor in 1961, and professor in 1965. He was named the Charles Horton Cooley Distinguished Professor of the Social Sciences in 1983, and became the Director of the Institute for Social Research in 1989. Zajonc retired in 1994, and moved to Stanford University where he was an active participant in the life of the Department of Psychology.

As a graduate student at Michigan—at first in Sociology—Zajonc was employed by Leon Festinger to work on an early cognitive dissonance experiment that became Hal Gerard's dissertation (Gerard, 1954).

Zajonc's first major contribution to social psychology was his dissertation "Cognitive Structure and Cognitive Tuning" supervised by Dorwin "Doc" Cartwright and Daniel Katz (Zajonc, 1960). In this study, Zajonc showed that participants organized social information differently when expecting

Editor's Note. Robert Zajonc was a special friend of *Dialogue* during the current Editors' tenure, providing thoughtful and controversial articles (Zajonc, 2003, 2004) and we did not want to fail to take notice of his career and impact in these pages.

to convey information (transmitters) than when expecting to receive information (receivers); transmitters used more differentiated, complex, unified, and organized mental structures. He also found a "tendency to reject material inconsistent with the person's own opinion."

"Cognitive Structure and Cognitive Tuning" (Zajonc, 1960) was one of the early critical papers that shaped a genuinely social and interpersonal take on cognition and mental structures, and thus it was an early publication in the area that come to be social cognition.

This paper was one of the early critical papers that shaped a genuinely social and interpersonal take on cognition and mental structures, and thus it was an early publication in the area that come to be called *social cognition*. Around the same time, Zajonc wrote a review paper for *Public Opinion Quarterly* (Zajonc, 1960) comparing psychological balance, cognitive congruity, and cognitive dissonance, which highlighted the similarities and differences of the then-popular theories of cognitive consistency.

Zajonc carried out a range of social-cognitive research in 1950's and 1960's.

With his Ph.D. student Eugene Burnstein, Zajonc carried out some of the earliest experimental studies in cognitive balance, an idea that came from both Fritz Heider's work on naïve social cognition (Heider, 1958) and Ted Newcomb's work on acquaintance and attraction (Newcomb, 1961). The goal was to study how liking, power, and other social relationships were mentally represented, with memory and learning errors as a dependent variable (e.g., Zajonc & Burnstein, 1965).

Several findings of positivity bias—that people learned and retained positive relations better than negative ones—led Zajonc to study word frequencies. He stumbled upon the correlation between word frequencies and positive evaluation—common words are more positive. This correlational finding led him to experiments, which led to the discovery of the power and generality of "mere exposure" on evaluation: The more one is exposed to a stimulus, the more one feels positively toward it. A lengthy and remarkable monograph on many of the vicissitudes of mere exposure appeared in the *Journal of Personality and Social Psychology* as a special supplement, with no self-citations. This phenomenon has spawned nearly 300 articles in PSYCInfo with "mere exposure" as keywords, and the original paper has been cited more than 1,300 times by early December, 2008, according to Google Scholar. Simple exposure to a stimulus has increased liking for faces, music, abstract shapes, "Chinese ideograms," nonsense words, smell, artificial grammars, and taste

(Continued on page 41)

R.B. Zajonc, Continued

(Continued from page 40)

stimuli, among many other sensory and cognitive domains. The effect is robust across species and cultures.

“Attitudinal Effects of Mere Exposure” (Zajonc, 1968) has spawned nearly 300 articles, and the original paper has been cited more than 1,300 times

Around the same time as his mere exposure monograph, Zajonc's (1968) chapter on "Cognitive Theories in Social Psychology" appeared in first volume of the Lindzey and Aronson *Handbook of Social Psychology*, sandwiched between Hall and Lindzey's chapter on Freudian theory and Deutsch's chapter on field theory. Social cognition has fared significantly better than the other two theories in social psychology, and this is in no small part due to Zajonc's efforts. The 1985 *Handbook of Social Psychology*, contained an equally important chapter with Hazel Markus (Markus and Zajonc, 1985), that helped determine the course of social cognition research for years to come.

Psychology faculty at Michigan in the 60s put together a series of short volumes to serve as a modular psychology text (e.g., Kelly, 1967; Manis, 1966). Zajonc (1966) wrote the volume on social psychology, and reviewed the conflicting literature in social facilitation—sometimes the presence of others improved performance, and sometimes it worsened performance. Zajonc found order in the chaos, and showed that the presence of conspecifics increased performance when tasks were easy or well-learned, but the presence of others

decreased performance when tasks were difficult or poorly-learned. A review of this formulation appeared in *Science* (Zajonc, 1965). Zajonc later connected social facilitation work to Hull-Spence drive theory (e.g., Spence, 1958), arguing that arousal/drive increased the probability of all behaviors, but that it increased the probability of well-learned/high probability behaviors at a faster rate, thus increasing the relative probability of well-learned behaviors being performed. This formulation was followed by years of controversy, primarily as a scientific competition between the Hull-Spence-Zajonc arousal account, and an alternative the emphasized learned motives, primarily anxiety about social evaluation. This work led to the only article in the history of the *Journal of Personality and Social Psychology* (so far) to use cockroaches as participants¹ (Zajonc, Heingartner, Herman, 1969).

This work led to the only article in the history of the Journal of Personality and Social Psychology to use cockroaches as participants.

Zajonc and colleague Greg Markus (Zajonc & Markus, 1975) developed a theory of how family configuration (birth order and family size) could affect intelligence of children. Zajonc and Markus showed that the higher intelligence of early children in multi-children families, and the higher intelligence of smaller families as compared to larger families (with a special cost of being an only child), could be explained by describing the average intelligence of the family into which a child is born. First children are born into an all-adult environment, but subsequent children are born into families with less-developed intellects, and so do not receive as much

stimulation. There was also a demonstrable effect for teaching younger children—last children (and only children) suffer a slight decrement. Although these effects are quite small as individual differences, at the population level they could be quite important. The effects were important in showing the powerful effects of the environment on intelligence, and at the population level of analysis, the theory has proven quite effective at describing and predicting population shifts in IQ scores. This theory was highly controversial, and methodological and empirical exchanges still populate the scientific literature.

It was the work on mere exposure that led to Zajonc's foray into subliminal processes. In a set of studies, Zajonc and colleagues (Moreland & Zajonc, 1977; Kunst-Wilson & Zajonc, 1980) showed that the effects of mere exposure operated in the absence of recognition, perceptual fluency, or even familiarity. Mere exposure was one clear area that led to effects on affect that were apparently completely independent of any cognitive system. This work had significant implications for non-conscious cognition, as well as implicit social cognition.

But it had a more immediate effect. In 1978, Zajonc received APA's Distinguished Scientific Contribution Award, and one of the benefits of that award was the opportunity to publish a

Feeling and thinking: Preference need no inferences (Zajonc, 1980) appeared and was an immediate sensation; it helped usher back emotions, mood, and affect as central concerns in social psychology.

(Continued on page 42)

R.B. Zajonc, *Continued*

(Continued from page 41)

lightly edited and gently reviewed article in *American Psychologist*. Zajonc's article—Feeling and Thinking: Preference Need No Inferences appeared and was an immediate sensation, with more than 2,500 citations by 2008. Zajonc (1980) argued that affect and cognition were two relatively independent psychological systems, and that they could proceed separately. Affect was described as more powerful, faster, and longer-lasting than cognition. This claim was controversial, and elicited counter-arguments (e.g., Lazarus, 1982) and rejoinders (Zajonc, 1984). This paper, and the controversy that followed it, helped usher back emotions, mood, and affect as central concerns in social psychology, a place of honor they retain today.

In recent times, Zajonc was studying the social psychology of genocide, taught a course at Stanford on the topic, and was developing a book on the subject.

Zajonc received the American Psychological Association's Distinguished Scientific Contribution Award, and the Society for Experimental Social Psychology's Distinguished Scientist Award. He was President of the Society for Experimental Social Psychology, President of APA's Division 1, General Psychology, and was on APA's Board of Scientific Affairs. He was a Fellow of the American Academy of Arts and Science.

Zajonc was deeply involved in making connections between the USA and Europe. He was an instructor at EAESP's inaugural Summer Institute, a member of the Polish Academy of Sciences, and received honorary doctorates from the University of Louvain, Belgium and from University of Warsaw, Poland, and was a founder of the Institute for Social Studies at the University of Warsaw.

In her tribute to Zajonc, delivered in Hungary, Mahzarin Banaji (2003) said:

When one comes face to face with a genius like Bob Zajonc, it is important to recognize the leagues that separate him from the rest. It has also been important to me, to find connections because to do so makes it possible to find meaning in my work, to steadfastly pursue discoveries even in the face of rejection. For me, Bob is what I aspire to, in the type of work, in the manner or work, and in the spirit of the work.

For me, Bob is what I aspire to, in the type of work, in the manner or work, and in the spirit of the work.

There are few social psychologists in the history of our field who have had as wide and as deep an effect on how we think about our phenomena, and how we think about ourselves, as Robert Zajonc (1923-2008).

Footnote

¹ One other paper explicitly uses cockroaches, although as a stimulus, not as participants (Rozin, Millman & Nemeroff, 1986).

References

- Banaji, M.R. (2003). The mere Zajonc effect: Introductory comments to honor Robert Zajonc. http://www.people.fas.harvard.edu/~banaji/research/mrb_talks/tributes/zajonc.html (Downloaded December 5, 2008).
- Gerard, H.B. (1954). The effect of different dimensions of disagreement on the communication process in small groups. *Human Relations*, 6, 249–271.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Kelly, E.L. (1967). *Assessment of human characteristics*. Belmont, CA: Brooks/Cole.
- Kunst-Wilson, W.R. & Zajonc, R.B. (1980). Affective discrimination of stimuli that cannot be recognized. *Science*, 207, 557-558.
- Lazarus, R. S. (1982). Thoughts on the relations between emotion and cognition. *American Psychologist*, 37, 1019-1024.
- Manis, M. (1966). *Cognitive processes*. Belmont, CA: Brooks/Cole.
- Markus, H. & Zajonc, R.B. (1968). The cognitive perspective in social psychology. In G. Lindzey and E. Aronson (Eds.) *Handbook of Social Psychology*, 3rd Ed., Vol. 1, (pp. 137-230). New York: Random House.
- Moreland, R.L. & Zajonc, R. B. (1977). Is stimulus recognition a necessary condition for the occurrence of exposure effects? *Journal of Personality and Social Psychology*, 35, 191-199.
- Newcomb, T.M. (1961). *The acquaintance process*. New York: Holt, Rinehart & Winston.
- Rozin, P., Millman, L. & Nemeroff, C. (1986). Operation of the laws of sympathetic magic in disgust and other domains. *Journal of Personality and Social Psychology*, 50, 703-712

(Continued on page 43)

The Idea of Bouncebackability

By *Constantine Sedikides*

On certain mornings, one feels in a somewhat naughty, tongue-in-cheek (and perhaps not terribly original) mood. This is one of those mornings for me, as I am scrabbling for my coffee.

Why then not propose this new and (undoubtedly) trendy construct, in hopes of fulfilling my dream to contribute a word to the dictionary? This word is *bouncebackability*.

Bouncebackability of the self-system, that is. It has to do with the extraordinary property of the self-system to bounceback immediately from soft or hard knocks.

The construct differs subtly from seemingly synonymous constructs such

as resilience or hardiness. Resilience and hardiness refer to long-term adaptation, and are about endurance or relatively passive robustness.

Bouncebackability is more active. It involves the in-the-moment, nitty-gritty, or microscopics of human responding to negative feedback of personal relevance, and it draws connections with social cognition and neuroscience wisdoms.

What are the properties of bouncebackability? Is bouncebackability an invariant characteristic of the self-system, or does it admit of degree? What cognitive and neurocognitive mechanisms underpin bouncebackability?

Does it vary as a function of feedback type (achievement vs. relational)? Are

there parts of the self-system that are more bouncebackable than others? Do all organisms with a rudimentary sense of self (e.g., chimpanzees, bonobos, dolphins) exhibit bouncebackability, and, if so, in what ways? What are bouncebackability's limits or boundaries, its personality correlates, and its implications for psychological health?

As an added bonus, the construct is surprisingly engaging. I have mentioned it to a few colleagues, and they immediately started arguing against it, gleefully pointing to its unoriginality. Might, though, still be there something to explore?

But it's time to put an end to all this, as my coffee is ready. Back to the grind.

■

R.B. Zajonc, Continued

(Continued from page 42)

Spence, K.W. (1958). A theory of emotionally based drive (D) and its relation to performance in simple learning situations. *American Psychologist*, 13, 131-141.

Zajonc, R.B. (1960). The process of cognitive tuning in communication. *Journal of Abnormal and Social Psychology*, 61, 159-67.

Zajonc, R.B. (1960). The concepts of balance, congruity, and dissonance. *Public Opinion Quarterly*, 24, 280-296.

Zajonc, R.B. (1965). Social facilitation. *Science*, 149, 269-274.

Zajonc, R.B. (1966). *Social psychology: An experimental approach*. Belmont, CA:

Brooks/Cole.

Zajonc, R.B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology Monograph*, 9 (2, Pt. 2), 1-27.

Zajonc, R.B. (1968). Cognitive theories in social psychology. In G. Lindzey and E. Aronson (Eds.) *Handbook of Social Psychology*, 2nd Ed., Vol. 1, (pp. 320-411). Reading, Mass.: Addison-Wesley.

Zajonc, R.B. (1969). *Animal social psychology: A reader of experimental studies*. New York: John Wiley & Sons.

Zajonc, R.B. (1980). Feeling and thinking: Preference need no inferences. *American Psychologist*, 35, 151-175.

Zajonc, R.B. (1984). On the primacy

of affect. *American Psychologist* 39, 117-123.

Zajonc, R.B. (2003). The preemptive power of words. *Dialogue*, 18(1), 10-13.

Zajonc, R.B. (2004). The dangers of unanimity. *Dialogue*, 19(1), 14-15.

Zajonc, R.B. & Burnstein, E. (1965). The learning of balanced and unbalanced social structures. *Journal of Personality*, 33, 153-163.

Zajonc, R.B., Heingartner, A., Herman, E.M. (1969). Social enhancement and impairment of performance in the cockroach. *Journal of Personality and Social Psychology*, 13, 83-92.

■