Current Directions

in Psychological Science



A JOURNAL OF THE AMERICAN PSYCHOLOGICAL SOCIETY

FEATURED IN THIS ISSUE

Ameti D. Adolescent Recklessness

Cambridge University Press

Current Directions

in Psychological Science



A JOURNAL OF THE AMERICAN PSYCHOLOGICAL SOCIETY

Volume 4, Number 3, June 1995

CONTENTS

The Young and the Reckless: Adolescent Reckless Behavior Jeffrey Arnett
The Mind of an Addicted Brain: Neural Sensitization of Wanting Versus Liking Kent C. Berridge and Terry E. Robinson
Listening to Speech in the 1st Year of Life: Experiential Influences on Phoneme Perception Janet F. Werker and Renée N. Desjardins
Resilience in Development Emmy E. Werner
Time-Place Learning Donald M. Wilkie
Visual Feature Integration in a World of Objects William Prinzmetal
Mobilization and Deterioration of Social Support Following Natural Disasters Krzysztof Kaniasty and Fran H. Norris



0963-7214(199506)4:3;1-D

CURRENT DIRECTIONSIN PSYCHOLOGICAL SCIENCE

(ISSN 0963-7214)

A Journal of the American Psychological Society Published by Cambridge University Press

Editors

Sandra Scarr University of Virginia

Charles R. Gallistel University of California, Los Angeles

Current Directions in Psychological Science is the bimonthly journal that provides a timely source of information spanning the entire spectrum of scientific psychology and its applications. CD publishes brief (2,000-2,500 words), scholarly reviews that focus on emerging trends, controversies, and issues of enduring importance to the science of psychology.

CD Submission Policy: Most *CD* reviews are commissioned by the Editors, but readers are encouraged to submit brief letters describing proposed reviews. These letters should be sent to the Editors, *Current Directions in Psychological Science*, American Psychological Society, Suite 1100, 1010 Vermont Avenue, NW, Washington, DC 20005-4907.

Current Directions in Psychological Science is indexed in Psychological Abstracts/PsychInfo, Social Sciences Citation Index (SSCI), Research Alert, and Current Contents/Social & Behavioral Sciences.

Subscription, Publication and Advertising Offices:

Cambridge University Press, 40 West 20th Street, New York, NY 10011-4211, USA; or Cambridge University Press, The Edinburgh Building, Shaftesbury Rd., Cambridge CB2 2RU, England.

Society, Membership, and Editorial Office:

American Psychological Society, Alan Kraut, Executive Director, Suite 1100, 1010 Vermont Avenue, NW, Washington, DC 20005-4907. Telephone 202-783-2077; Fax 202-783-2083.

Subscription Information: Current Directions in Psychological Science (ISSN 0963-7214) is published bimonthly. Annual subscription rates (1995): For the United States, Canada, and Mexico, US\$125.00 for libraries and institutions, US\$63.00 for individuals. For all other countries, UK£74.00 for institutions; UK£35.00 for individuals. Members of the American Psychological Society receive this journal as part of their annual dues. Prices include postage and insurance; direct air mail is extra. Please give six weeks advance notice of change of address: Members should notify the APS; all others must notify Cambridge University Press.

Copyright © 1995 American Psychological Society

All rights reserved. No part of this publication may be reproduced, in any form or by any means, electronic, photocopying or otherwise, without permission in writing from Cambridge University Press, except when permission is obtained through a bona fide copyright clearinghouse, such as the Copyright Clearance Center (USA) or the Copyright Licensing Agency (UK). The CCC Item-Fee Code for this publication is 0961-8368/95 \$9.00 + .10. Specific written permission must be obtained for all other copying.

Photocopying for Classroom Use: The APS encourages use of this publication for educational purposes. Permission to reproduce parts of this publication for course anthologies may be easily obtained directly from Cambridge University Press or through duly authorized services, which include the Academic Permissions Service of the CCC, 222 Rosewood Drive, Danvers, MA 01923 (Telephone 508-750-8400), the Copyright Permissions Service of the National Association of College Stores, Kinko's Copies, or through any other photoduplication service that properly secures permission in advance from Cambridge, the CCC, or any other duly authorized agent. If in doubt, contact Cambridge University Press.

Second-Class postage paid at New York, NY and additional mailing offices. Forwarding and Return Postage Guaranteed, Address Correction Requested. Postmaster: Send address changes in the USA, Canada, and Mexico to: Current Directions in Psychological Science, Cambridge University Press, Journals Fulfillment Dept., 110 Midland Ave., Port Chester, NY 10573-4930.

Printed in the United States of America.

The Young and the Reckless: Adolescent Reckless Behavior

Jeffrey Arnett

In Rio de Janeiro in Brazil, they "surf" on the tops of trains, standing with arms outstretched as the trains rush along. The surfers-adolescents, girls as well as boys-are undeterred by the death of 150 fellow surfers per year and the injury of 400 more, from falling off trains or from hitting the 3,000-volt electric cable that runs above. On Truk Island in the South Pacific, drunkenness, fighting, and sexual experiences with a variety of lovers are all part of typical development for young men in their late teens and early .20s. They also go spearfishing where large sharks are common, and seek out other "daredevil risks with life and limb."1 In urban New Jersey in the United States, adolescent boys steal automobiles, then drive them wildly for a few hours before crashing or abandoning them.

Why do many adolescents seek out experiences that involve physical, psychological, or legal risks? What blend of developmental and socialization factors leads to reckless behavior among adolescents? Researchers and theorists have offered a number of explanations, focusing on such behavior as driving an automobile at high speeds or while intoxicated, having sex without con-

Jeffrey Arnett is Associate Professor of Human Development and Family Studies at the University of Missouri-Columbia. His research interests include adolescent reckless behavior, socialization, adolescents' uses of media, and the transition from adolescence to young adulthood. Address correspondence to Jeffrey Arnett, Department of Human Development and Family Studies, 31 Stanley Hall, Columbia, MO 65211.

traception or with someone not known well, using illegal drugs, and committing crimes. Richard Jessor, for example, has suggested that the developmental motivation for such behavior is the desire of adolescents to achieve adult status.2 His theory also includes personality characteristics (such as self-esteem and value placed on achievement), family environment, and religiosity. Charles Irwin, Jr., presents a model that emphasizes pubertal timing and its effects on risk perception and peergroup association.3 My own focus is on three developmental predispositions for reckless behavior in adolescence-sensation seeking, egocentrism, and aggressiveness—and their interaction with the cultural socialization environment.

THE DEVELOPMENTAL BASIS

Sensation Seeking

One characteristic of adolescent development that contributes to reckless behavior is a heightened level of sensation seeking.4 Sensation seeking is a propensity for seeking out novel and intense experiences, and many types of reckless behavior are experiences of this kind. Driving a car at high speeds is attractive to many adolescents by virtue of the intensity of the experience. Sexual activity involves sensations that are intense and, for adolescents, novel as well. Trying illegal drugs results in novel forms of consciousness, and "to see what it was like" is a common response given by adolescents who are asked why they have used illegal drugs. Pervasive

forms of adolescent criminal behavior, such as minor theft and vandalism, carry the danger of being apprehended, but many adolescents describe this sense of danger as thrilling, intoxicating. Studies have found measures of sensation seeking to be related to a wide variety of reckless behaviors, and have found sensation seeking to be higher in adolescence than in adulthood.

Egocentrism

One of the advances in cognitive development that accompany adolescence is an advance in imaginative capacities. As Jean Piaget explained, adolescents are capable of thinking in terms of hypothetical situations in a way younger children are not. Adolescents are able to imagine their own lives in a magnified and grandiose way, and may see themselves as having a specially ordained existence. This "personal fable" (to use David Elkind's term) may exclude the possibility that their course to the future might be derailed by injury, unintended pregnancy, legal prosecution, drug addiction, or even death as a consequence of reckless behavior. These outcomes are all things adolescents may see as happening to other people, not to themselves. The sense of invulnerability conferred by the personal fable may increase some adolescents' propensity to take part in reckless behavior.

Evidence supporting this theoretical idea comes chiefly from studies indicating that adolescents have a tendency to estimate that the probability of a negative outcome resulting from engaging in reckless behavior is lower for themselves than for other people. For example, adolescent drivers have a stronger tendency than older drivers to rate themselves as less likely than their peers to be involved in an accident. Criminal behavior is inversely related to the perceived risk that neg-

ative consequences would result, and the perceived risk is lower in adolescence than in adulthood. Similarly, adolescent girls who have had sex without contraception estimate the probability that pregnancy would result from such behavior as lower than do girls who have not had sex without contraception.

To some extent, these studies are simply indicative of the "optimistic bias" that investigators of decision making have found to be true of people of all ages; that is, there is a tendency for individuals to believe that unpleasant events are less likely to happen to themselves than to other people. However, as noted, studies of automobile driving and criminal behavior suggest that this tendency is stronger in adolescence than in adulthood.

Aggressiveness

Because of the way the levels of hormones related to aggression rise when puberty arrives, aggressiveness seems like an obvious place to look for an explanation of why adolescents are more reckless than children or adults. In particular, levels of testosterone, which has been repeatedly found to be related to aggression, become 18 times higher by the end of puberty than at the beginning, for boys, and twice as high for girls; testosterone levels then decline after the mid-20s. These facts help explain not only why adolescents are more reckless than children or adults, but also why boys tend to be more reckless than girls for some types of reckless behavior.

Two types of reckless behavior for which aggressiveness may be particularly important are risky automobile driving and criminal behavior. Some adolescents use automobiles as a way of expressing aggressiveness. Some adults do, too, but adolescents may be more likely to do so than adults, both because testosterone levels are higher in adolescence

and because adolescents may have less impulse control than adults and less social pressure to exercise it. Studies indicate that aggressiveness is related to high-speed and risky driving among adolescents and young adults. Aggressiveness also has an obvious relation to certain kinds of criminal behavior. Adolescents (especially males) have the highest rates of automobile accidents and of a wide variety of criminal activities.

SOCIALIZATION

Although the developmental predispositions I have described may incline adolescents toward reckless behavior, the socialization environment determines whether those predispositions will be expressed, and to what extent, and in what forms. Although the biological and physical developments of puberty are similar across cultures, the extent and forms of adolescent recklessness vary greatly among cultures because of differences in socialization practices.

In comparing cultures, I make a general distinction between broad and narrow socialization.4,5 In cultures characterized by broad socialization, there is an emphasis on promoting individuality and autonomy, with the goal of restraining individuals as little as possible to allow the fullest measure of self-expression. Under narrow socialization, in contrast, obedience and conformity are the highest values, and deviation from the expected standard of behavior is punished physically or socially. In this theory, socialization has sources that include family, peers and friends, school, neighborhood and community, the legal system, the media, and the cultural belief system.

Narrow socialization is narrow in the sense that predispositions for characteristics such as sensation

seeking, egocentrism, aggressiveness, and (by extension) reckless behavior are pressed into a narrower range of expression than would be the case if the expression of these characteristics were unimpeded. In cultures characterized by broad socialization, however, a broad range of inherent predispositions in these same characteristics is likely to be expressed, because the standards for behavior are less strict and violations of the standards are less likely to be punished harshly. Not all adolescents in such a socialization environment will be reckless, but those with a relatively strong predisposition for the characteristics that promote reckless behavior will find that the expression of these predispositions is not thwarted.

Evidence for the role of socialization in adolescent reckless behavior can be found in each source of socialization.

Family

Broad socialization in the family means that parents allow their adolescents a great deal of unsupervised time and encourage them to be independent and self-sufficient. Narrow socialization in the family means that parents (and perhaps other adults in the extended family) keep a close eye on their adolescents and demand obedience and deference. The importance of family socialization in adolescents' participation in reckless behavior has been supported in studies in several countries, including the United States, Canada, and Finland. These studies indicate that parental restrictions and monitoring are related to lower rates of adolescent recklessness in areas such as sexual behavior, vandalism, and substance use.

Of course, in parents' socialization of their adolescents, not only control matters, but also love. Numerous studies indicate that control without love is ineffective in discouraging antisocial behavior among adolescents. In Japan and India, for example, parents obtain a high degree of obedience from their children and adolescents while using very little overt control. The relationships between parents and adolescents typically are so close emotionally that the threat of guilt and shame before their parents is enough to deter most adolescents from participating in reckless behavior

Peers and Friends

Socialization by peers tends to be narrow, in the sense that adolescent friendship groups, or cliques, tend to demand conformity from their members. However, this demand for conformity among peers can be either for or against the standards of desirable behavior promoted by adults in the culture; in particular, it can be either for or against participation in reckless behavior. In some adolescent cliques, members are pressured to drive fast, have sex, try drugs, and otherwise break social norms; in others, the pressure is in the opposite direction, toward avoiding participation in reckless behavior.

Cultures differ in the extent to which they allow adolescents to form peer groups that encourage behavior that defies adult standards. The flexibility and freedoms of broad socialization make it possible for adolescents to form their own "youth culture" that encourages and rewards behavior (including reckless behavior) that adults would prefer to discourage. With narrow socialization, however, adults control and monitor the activities of adolescent peer groups to ensure that they promote conformity to the same standards of behavior that adults endorse. Among the Mbuti described by Colin Turnbull, for example, arguing and fighting are socially unacceptable. When someone is guilty of these offenses, the adolescent boys

of the village have the responsibility of appearing at the offender's hut early the next morning, shouting and yelling, beating on the roof and tearing off leaves and sticks. In this way, the adolescents reinforce the cultural standards of behavior in the offender as well as in each other, while also having an opportunity to express aggressiveness in a socially constructive way.

School

Schools characterized by broad socialization have a minimum of rules for dress, attendance, and conduct, and place a high emphasis on respecting and encouraging the individuality of each child. Schools characterized by narrow socialization have strict rules and firm punishments for violating them; often, such schools are founded on a narrow socialization belief system, for example, Catholicism, Judaism, or Islam. In general, school characteristics that imply narrow socialization are associated with lower levels of various types of reckless behavior, both within school and outside of it, even when academic aptitudes are taken into account. The school characteristics consistently found to be of importance are firm discipline, high expectations for performance, and a foundation in a belief system that provides moral guidance.8

Neighborhood and Community

Sociologists have studied for many decades the role of neighborhood and community characteristics in crime and delinquency. In general, these studies show that some types of reckless behavior are higher where there is high residential mobility and where communities are large. It may be that socialization is broader in larger communities than in smaller communities, in the sense that in larger communities there are

fewer adults whom adolescents know and who may monitor and exercise authority over them.

However, this sociological research has taken place mostly in Western countries, and even communities with relatively narrow socialization within Western countries are less narrow in their socialization than communities in many non-Western, preindustrial cultures. In those cultures, socialization in the community is so narrow that adolescents rarely spend time away from the eyes of adults who know them and have authority over them, so adolescents rarely have the opportunity to participate in reckless behavior. Ethnographies such as Gilbert Herdt's on the Sambia in New Guinea demonstrate vividly the socialization practices of a community characterized by narrow socialization. The accounts of these anthropologists show how strongly obedience and conformity may be enforced by an entire community, and how little room such communities leave for antisocial recklessness,9 in contrast to the relatively broad socialization of communities in the West.

Legal System

The legal system is not often mentioned in discussions of socialization, but as adolescents in many cultures grow into adolescence and spend an increasing amount of their time away from their families, the legal system is one of the forces that may monitor, restrict, and punish their behavior. Where socialization is broad on the legal dimension, there is a minimum of legal regulation of behavior, and the punishments for taking part in prohibited behavior (including many types of reckless behavior) tend to be lenient. In contrast, where legal socialization is narrow, the punishments are sure, swift, and harsh, and the legal system includes within its scope certain

kinds of behavior that would not be subject to legal regulation under broad socialization. For example, consensual premarital sex is a crime that may be punished under the legal system in some Islamic countries.

In the West, perhaps the most vivid example of socialization by the legal system is in the area of automobile driving. A colleague and I studied adolescents in Denmark and found that they were much less likely to drive an automobile while intoxicated or at high speeds than are adolescents in the United States. 10 Danish adolescents often "drove" while intoxicated, but the vehicle typically used was a bicycle, not an automobile. The explanation for this difference lies not in cultural differences in family restrictions or peer pressure, but in the simple fact that the legal age for automobile driving is 18 in Denmark, but 16 in most U.S. states. Danish adolescents presumably have no less a developmental tendency for sensation seeking, egocentrism, and aggressiveness than American adolescents do, but because of restrictions set by the legal system, these tendencies are expressed (in part) through bicycles, not automobiles. Consequently, adolescents in Denmark (and in other Western European countries with a legal driving age of 18) have an automobile fatality rate that is markedly lower than in the United States.

Media

Many adolescents in the United States are immersed in media for much of their daily lives. The typical American adolescent listens to music for 4 hr a day and watches television for 2 more hr a day, and to this must be added time spent on videos, movies, and magazines, among other media forms. These media are generally an influence toward broad socialization, in that they encourage self-expression and

immediate gratification, and discourage impulse control and self-restraint. They could be hypothesized to contribute to reckless behavior because reckless behavior is pleasurable, and adolescents imbibe from the media daily the message that what is pleasurable should be pursued without restraint, regardless of the consequences.

However, the influence of the media on adolescent reckless behavior is difficult to study precisely or directly, and the idea that the media incite reckless behavior among adolescents is still mostly theoretical and anecdotal. It should also be noted that the media can sometimes be an influence toward narrow socialization. For example, it could be argued that the decline in adolescent drug use that took place in the United States from the mid-1970s to the late 1980s was due at least partly to the extensive antidrug media campaign that also took place during that time.

Cultural Belief System

The cultural belief system is the ultimate source of socialization, because what parents, peers, schools, community members, and members of the legal system do as socializing agents is due at least in part to the beliefs they have learned from their culture. These are not necessarily religious beliefs, but any set of shared beliefs about what is good and bad, right and wrong, or healthy and unhealthy, including beliefs about the proper and most desirable goals of socialization. The belief system underlying narrow socialization is often religious-among the Amish, for example, or the Orthodox Jews-but the political ideology of communism has also served as a narrowsocialization belief system in countries such as China, Cuba, and North Korea, promoting obedience and conformity in the other sources of socialization. The belief system underlying broad socialization is one of expressive individualism: People should be allowed, even encouraged, to do whatever they wish as long as they do not cause direct harm to anyone else.

The cultural belief system not only provides the basis for socialization from the other sources, but also contributes directly to socialization. The nature of these beliefs is crucial to adolescents' understanding of the meaning and value of reckless behavior. If impulse control is highly valued in the culture, and obedience and conformity are considered high virtues-in short, if the cultural belief system is one of narrow socialization-most adolescents will refrain from reckless behavior and associate even the idea of such deviance with a level of shame and guilt strong enough to deter them from taking part in it, regardless of their inherent predispositions for sensation seeking, egocentrism, and aggressiveness. In contrast, if it is not impulse control but impulse gratification that is highly prized, if obedience and conformity are considered not virtues but weaknesses, if adolescents learn that reckless behavior is not shameful but condoned and even tacitly admired—in short, if the cultural belief system is one of broad socialization-adolescents will be more likely to express their tendencies toward sensation seeking, egocentrism, and aggressiveness as reckless behavior.

SUMMARY AND CONCLUSION

Adolescent reckless behavior results from the interaction between certain developmental characteristics that are heightened in adolescence—particularly sensation seeking, egocentrism, and aggressiveness—and the cultural socialization environment. Cultural socialization should be understood to

include not just family and peers but also school, neighborhood and community, the legal system, the media, and the cultural belief system. All of these sources contribute to socialization and influence the rates and types of adolescent reckless behavior within a given culture.

Why would any culture allow adolescent behavior that disrupts the lives of other people and undermines social order, as reckless behavior often does? The reason is that cultures must accept some kind of trade-off in socialization between promoting individualism and selfexpression, on the one hand, and promoting social order, on the other. Cultures characterized by broad socialization promote individualism and self-expression in an effort to produce autonomous, creative children and adolescents who express the full range of their potentialities. One price of promoting these goals is higher rates of adolescent reckless behavior; adolescent

potentialities include sensation seeking, egocentrism, and aggressiveness, and if the expression of these tendencies is not tightly controlled by socialization, the result is likely to be high rates of reckless behavior. Cultures characterized by narrow socialization face a similar trade-off. They wish to promote obedience, conformity, respect for authority, and social order, and in doing so they achieve lower rates of disruptive and antisocial adolescent reckless behavior, and a safer, more orderly society. However, in promoting these goals, they run the risk of extinguishing what is brightest, liveliest, and most original in their adolescent children.

Notes

1. D. Gilmore, Manhood in the Making: Cultural Concepts of Masculinity (Yale University Press, New Haven, CT, 1990), p. 62.

2. R. Jessor, Problem behavior theory, psychosocial development, and adolescent problem drinking, *British Journal of Addiction*, 82, 331–342 (1987).

- 3. C. Irwin, Jr., Adolescence and risk taking: How are they related? in *Adolescent Risk Taking*, N.J. Bell and R. Bell, Eds. (Sage, Newbury Park, CA, 1993).
- 4. J. Arnett, Reckless behavior in adolescence: A developmental perspective, Developmental Review, 12, 339–373 (1992).
- J. Arnett, Socialization and adolescent reckless behavior: A reply to Jessor, Developmental Review, 12, 391–409 (1992).
- A. Roland, In Search of Self in India and Japan: Toward a Cross-Cultural Psychology (Princeton University Press, Princeton, NJ, 1988).
- 7. C. Turnbull, The Forest People (Doubleday, Garden City, NJ, 1962).
- 8. J.S. Coleman, T. Hoffer, and S. Kilgore, High School Achievement: Public, Catholic, and Private Schools Compared (Basic Books, New York, 1982).
- 9. G. Herdt, *The Sambia: Ritual and Gender in New Guinea* (Holt, Rinehart, & Winston, New York, 1987).
- 10. J. Arnett and L. Balle-Jensen, The cultural bases of risk behavior: Danish adolescents, *Child Development*, 64, 1842–1855 (1993).

Recommended Reading

Donovan, D.M., Marlatt, G.A., and Salzberg, P.M. (1983). Drinking behavior, personality factors, and high-risk driving. *Journal of Studies on Alcohol*, 44, 395–428.

Morrison, D.M. (1985). Adolescent contraceptive behavior: A review. *Psychological Bulletin*, 98, 538-568.

Shedler, J., and Block, J. (1990). Adolescent drug use and psychological health: A longitudinal inquiry. *American Psychologist*, 45, 612-630.

Wilson, J.Q., and Herrnstein, R.J. (1985). Crime and Human Nature (Simon and Schuster, New York).