

THE DEVELOPMENTAL CONTEXT OF SUBSTANCE USE IN EMERGING ADULTHOOD

JEFFREY JENSEN ARNETT

The theory of emerging adulthood has been proposed as a way of conceptualizing the developmental characteristics of young people between the ages of 18 and 25. Here, the theory is applied to explaining the high rates of substance use in this age group. Specifically, five developmentally distinctive features of emerging adulthood are proposed: the age of identity explorations, the age of instability, the age of self-focus, the age of feeling in-between, and the age of possibilities. Then, each of these features is applied to an explanation of drug use in emerging adulthood.

INTRODUCTION

The transition to adulthood has changed dramatically in the U.S. and other industrialized countries over the past half century. Most notably, it has become longer, as marriage and parenthood have come later and more people have extended their education and training into their twenties. It is argued here that, in fact, the transition is now so long that it constitutes a separate period of the life course, a period termed emerging adulthood (Arnett, 1998a, 2000, 2004). It lasts roughly from age 18 to 25, although for many people it lasts through the twenties.

Among the notable characteristics of emerging adulthood is that it is the age period when prevalence is highest for most types of drug use. According to the National Survey on Drug Use and Health (Substance Abuse and Mental Health Services Administration [SAMHSA], 2003), in 2002, nearly 70% of 21 to 25 year-olds used alcohol in the past month, a higher percentage than any other age group. Illicit drug use in the past month was highest among 18 to 20 year olds (23%), with 21 to 25 year olds close behind (19%). Not only drug use but drug abuse is highest in emerging adulthood. In the same survey, binge drinking was highest among 21 to 25 year olds (44%) and second highest among 18 to 20 year olds (37%). Prevalence of clinical diagnosis of substance

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dependence/abuse was also highest among 18 to 25 year olds (22%). Other national surveys have reported similar results (e.g., Bachman et al., 2002).

Why is drug use and abuse so high in emerging adulthood? In this paper the author explores the developmental considerations that pertain to this question. First, some background about what emerging adulthood is and how it has come to be a distinct period of the life course is discussed. Then the central features (the age of identity explorations, the age of instability, the age of self-focus, the age of feeling in-between, and the age of possibilities) of emerging adulthood are applied to drug use in pursuit of a developmental explanation.

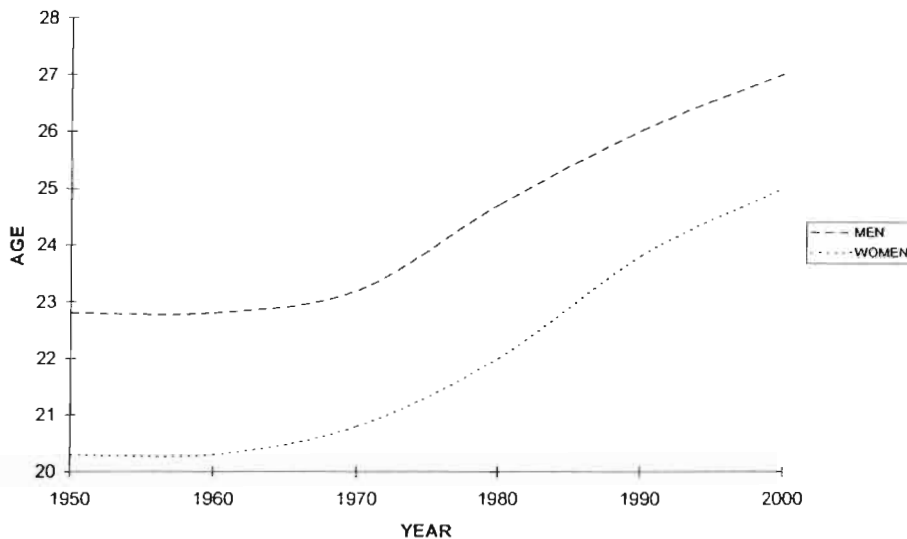
THE RISE OF EMERGING ADULTHOOD

Remarkable demographic changes have taken place in the past half century that reflect the rise of emerging adulthood and underline the need for a new term to refer to the age period from 18 to 25. As shown in Figure 1, in 1950 the median age of marriage in the United States was just 20 for women and 22 for men. Even as recently as 1970, these ages had risen only slightly, to about 21 for women and 23 for men. However, since 1970 there has been a dramatic shift in the ages when Americans typically get married. By the year 2000, the typical age of marriage was 25 for women and 27 for men, a four-year rise for both sexes in the space of just three decades. Age at entering parenthood followed a similar pattern. From 1950 to 1970, most couples had their first child in their very early twenties, whereas today most wait until at least their late twenties before becoming parents. In other industrialized countries as well, median ages of entering marriage and parenthood have risen sharply in the past half century (Arnett, 2004).

Why this dramatic rise in the typical ages of entering marriage and parenthood? The invention of the birth control pill, in combination with looser standards of sexual morality after the sexual revolution of the 1960s and early 1970s, meant that young people no longer had to enter marriage in order to have a regular sexual relationship. Today most young people have a series of sexual relationships before entering marriage, and there is widespread tolerance in American society for premarital sexual activity during the emerging adult years, as long as it takes place in the context of a committed, loving relationship (Michael, Gagnon, Laumann, & Kolata, 1995).

Another important reason for the rise in the typical ages of entering marriage and parenthood is the increase in the years devoted to pursuing higher education. An exceptionally high proportion of young people, about 60%, now enter college after graduating from high school (Mogelonsky, 2004). This is a higher proportion than ever before in American history. Furthermore, the pursuit of a four-year college degree is not necessarily a linear process. Many emerging adults drop out of college, perhaps resuming later. Only about 30% of 25 to 29 year olds have obtained a bachelor's degree,

FIGURE 1
MEDIAN U.S. MARRIAGE AGE, 1950-2000



Source: Arnett & Taber, 1994; U.S. Bureau of the Census, 2000.

and it typically takes five or six years for those who do (Mogelonsky, 2004). Most young people wait until they have finished school before they start thinking seriously about marriage and parenthood, and for many of them this means postponing these commitments until at least their mid-twenties.

But it may be that the most important reason of all for the rise in the typical ages of entering marriage and parenthood is less tangible than changes in sexual behavior or more years spent in college and graduate school. There has been a profound change in how young people view the meaning and value of becoming an adult and entering adult roles of spouse and parent. The median marriage age declined in the early decades of the 20th century, and by the middle of the 20th century young people entered marriage and parenthood shortly after high school, rarely later than their early twenties (Arnett & Taber, 1994). According to historians (Modell, 1989), they may have sought the stability of these roles because they grew up in the highly unstable years of the Great Depression and World War II. Most of them intended to have three or more children, which gave them an incentive to start early, in order to have all the children they wanted and space them out at reasonable intervals.

The young people of today, in contrast, see adulthood and its obligations in quite a different light. In their late teens and early twenties, marriage, home, and children are

seen by most of them not as achievements to be pursued but as perils to be avoided (Arnett, 2004). It is not that they do not want marriage, home, and (one or two) children – eventually. Most of them do want to take on all of these adult obligations, and most of them will have done so by the time they reach age 30 (Arnett, 2000). However, during emerging adulthood many are deeply ambivalent about entering marriage and parenthood, and most are reluctant to end the exceptional freedom they experience in emerging adulthood before they reach their late twenties, at the earliest. To them, adulthood and its obligations offer security and stability, but they also represent an end to the freedoms of emerging adulthood.

Women's roles have also changed in ways that make an early entry into adult obligations less desirable for them now compared to 50 years ago. The young women of 1950 were under a great deal of social pressure to find a spouse as early as possible because being single was simply not a viable social status for a woman after her early twenties. Relatively few women attended college, and the range of occupations open to young women was severely restricted, as it had been traditionally, to work as a secretary, waitress, teacher, nurse, or perhaps a few others. Even these occupations were supposed to be temporary for young women. They were really supposed to be focusing on finding a husband and having children. Having no other real options, and facing social limbo if they remained unmarried for long, they had little reason to delay marriage and children and substantial social incentives to enter these roles relatively early (Modell, 1989).

For the young women of the 21st century, the range of educational and occupational possibilities has broadened dramatically. At every level of education from grade school through graduate school, girls now excel over boys (Sommers, 2001). Fifty-six percent of the undergraduates in America's colleges and universities are women, according to the most recent figures (Mogelonsky, 2004). This is a reversal of the gender difference that existed prior to 1980, when considerably more men than women obtained higher education (Mogelonsky, 2002). Young women's occupational possibilities are now virtually unlimited, and although men still dominate in engineering and some sciences, women are equal to men in obtaining law and business degrees, and nearly equal in obtaining medical degrees (Bianchi & Spain, 1996). With so many options open to them, and with so little pressure on them to marry by their early twenties, the lives of young American women today have changed almost beyond recognition from what they were 50 years ago. And most of them take on their new freedoms with alacrity, making the most of their emerging adult years before they enter marriage and parenthood.

Although the rise of emerging adulthood is partly a consequence of the rising ages of marriage and parenthood, marriage ages were also relatively high early in the 20th century and throughout the 19th century (Arnett, 1998a). What is different now is that young people have much greater freedom from social control during the ages from 18 to

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25 than they ever did in the past. Young people of the past were constricted in a variety of ways, from gender roles to economic pressures, which constrained their behavior during their late teens and twenties. A century ago, most young people remained home until marriage (Goldscheider & Goldscheider, 1999), and so remained under the social control of their parents until they entered the social control of the marriage relationship. In contrast, today's emerging adults typically move out of their parents' household by age 18 or 19, and during the years from 18 to 25 they have unprecedented freedom from social control.

EMERGING ADULTHOOD AND DRUG USE

It has been proposed that emerging adulthood is characterized by five main features: it is the age of identity explorations, especially in love and work; it is the age of instability; it is the most self-focused age of life; it is the age of feeling in-between, in transition, neither adolescent nor adult; and it is the age of possibilities, when hopes flourish, when people have an unparalleled opportunity to transform their lives.

Elsewhere it has been explained in detail how these features distinguish emerging adulthood from the adolescence that precedes it or the young adulthood that follows it (Arnett, 2000, 2004). Here, the features are applied specifically to drug use in order to explain the high rates of drug use during this age period. For each of the features, hypotheses are offered that present opportunities for empirical investigation. Some of these hypotheses have been addressed in existing studies, some have not been tested at all, but all of them are intended to represent promising directions for further research.

THE AGE OF IDENTITY EXPLORATIONS

Although identity development has been traditionally associated with development during adolescence, I have argued that in fact the main part of identity explorations takes place in emerging adulthood rather than adolescence. This can be seen clearly with respect to the two main areas of identity development, love and work (Erikson, 1950, 1968). Adolescents make initial explorations in love relationships; it is during adolescence that most people have their first romantic partnerships and their first sexual experiences. However, it is during the years of emerging adulthood that identity-related explorations in love mostly take place, as people begin to ask themselves more seriously what kind of person they wish to form a long-term partnership with, which requires them to know who they really are and what qualities are most important to them in a (hopefully) life-long romantic partner. Similarly, work experiences typically begin in adolescence, as most young people have a part-time job at some point during secondary school. However, work becomes more serious and identity-focused in emerging adulthood, as people ask themselves what kind of work they would like to

do for the long term, which requires them to know who they are – what their abilities are, what their interests are, and what kind of work they would most enjoy.

Substance use may be a part of identity explorations in emerging adulthood in two ways. First, as part of their identity explorations many emerging adults want to have a wide range of experiences before they settle into adult life, and for some of them that means trying out substances. They want to see what it is like to experience the states of consciousness induced by various substances. Second, constructing a stable identity can be confusing and difficult, and some emerging adults may use substances as a way of relieving their identity confusion.

Several approaches to conceptualizing and measuring identity have been developed. By far the most widely used approach is the “identity status” model (Schwartz, 2001, 2002), which places persons into one of four categories, based on combinations of exploration and commitment: diffusion (low exploration, low commitment), foreclosure (low exploration, high commitment), moratorium (high exploration, low commitment), and achievement (high exploration, high commitment). The moratorium status is the one most characterized by identity explorations, so emerging adults in this status category may have the highest rates of substance use. However, emerging adults in the diffusion category may also have relatively high rates of substance use, not motivated by a desire for explorations but for self-medication.

The identity status model has been criticized in recent years (e.g., van Hoof, 1999), and other methods for measuring identity have been developed. One approach is to measure exploration and commitment as continuous rather than categorical variables (Balistreri, Busch-Rossnagel, & Geisinger, 1995). Using this approach, it may be that emerging adults who are relatively high in exploration are also relatively high in substance use. Another approach using continuous rather than categorical variables has three dimensions of “identity styles”: informational, normative, and diffuse/avoidant (Berzonsky, 1997).

Research on identity in relation to substance use is limited. A study using the identity status model reported that adolescents in the diffused identity category were more likely to use a variety of substances than adolescents in the other categories, and a study using the identity styles approach found that a diffuse/avoidant identity style was related to higher substance use among adolescents than an informational or normative style (Adams, Munro, Munro, Doherty-Poirer, & Edwards, 2004). Both studies suggest support for the idea that substance use may be motivated by difficulties in constructing a stable identity. Also, numerous studies have examined substance use in relation to specific aspects of identity, especially sexual identity (McCabe, Boyd, Hughes, & d’Arcy, 2003; Rosario, Hunter, & Gwadz, 1997), or ethnic identity (Beauvais, 1998; Marsiglia, Kulis, & Hecht, 2001). However, very few studies have looked at substance use in relation to identity more generally.

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Another way to find relevant data on this issue is to look at it in terms of the personality characteristic of sensation seeking. Sensation seeking represents a kind of exploration, as it involves the pursuit of novel and intense experiences (Arnett, 1994; Zuckerman, 1994). Although few studies have been conducted comparing age groups on sensation seeking, one longitudinal study found that sensation seeking increased from age 15 to 24, especially the "experience seeking" aspect of sensation seeking that is most closely related to the idea of identity explorations (Pandina, Labouvie, & White, 1984). Furthermore, sensation seeking at ages 15 and 18 predicted changes in drug use three years later, at ages 18 and 21 (Bates, Labouvie, & White, 1986). Cross-sectional studies have also found sensation seeking to be related to substance use in emerging adulthood (e.g., Arnett, 1998b; Zuckerman, 1994).

Hypothesis 1: Identity explorations in emerging adulthood will predict substance use, especially in the absence of commitment. Specifically, emerging adults in the moratorium status will have higher rates of substance use than those who are in the foreclosure or achievement statuses.

Hypothesis 2: Identity confusion in emerging adulthood leads to substance use. Specifically, emerging adults who are classified as being in the diffusion status in the identity status model will have higher rates of substance use than those who are in the foreclosure or achievement categories, and in the identity styles model, a diffuse/avoidant style will be related to higher substance use.

Hypothesis 3: Sensation seeking will be found to be higher in emerging adulthood than in either adolescence or young adulthood, and this will help explain why substance use is also highest in emerging adulthood.

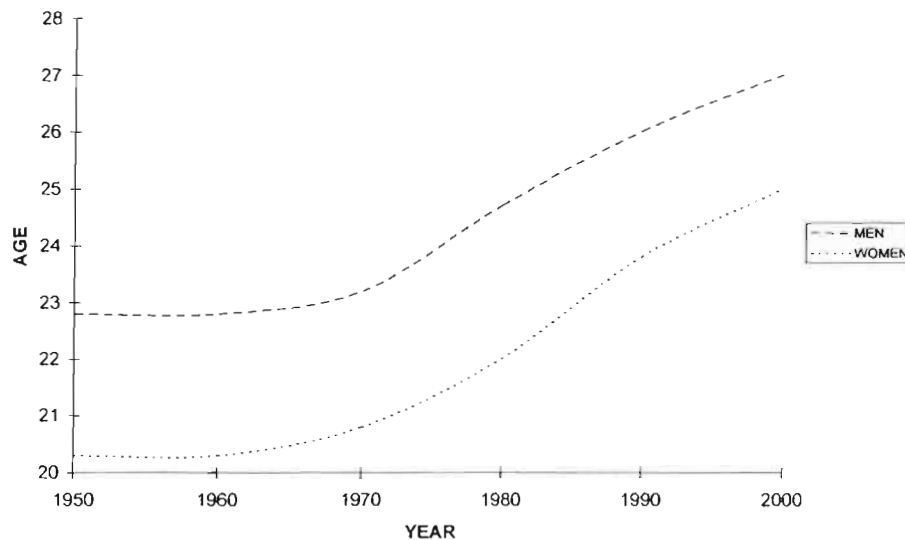
THE AGE OF INSTABILITY

Emerging adulthood is a time of great instability. In fact, it is arguably the most unstable period of the life course. In the course of their identity explorations, emerging adults make frequent changes in their lives in terms of love partners, jobs, and educational status (dropping in and out of college, changing college majors).

The best illustration of the instability of emerging adulthood is in how often they move from one residence to another. As indicated in Figure 2 (U.S. Bureau of the Census, 2003), rates of moving spike upward beginning at age 18 and reach their peak in the mid-twenties, then sharply decline. Their many moves have many sources (Goldscheider & Goldscheider, 1999). The first move is to leave home, often to go to college but sometimes just to be independent of their parents. Other moves soon

follow. If they drop out of college either temporarily or permanently, they may move again. They often live with roommates during emerging adulthood, and when conflict develops with roommates, they may move again. They may move in with a boyfriend or girlfriend. Sometimes cohabitation leads to marriage, sometimes it does not – and when it does not, they may move again. If they graduate from college they often move again, perhaps to start a new job or to enter graduate school. For nearly half of emerging adults, at least one of their moves during the years from age 18 to 25 will be back home to live with their parents.

FIGURE 2
RATES OF MOVING BY AGE



Source: U.S. Bureau of Census, 2003.

All this instability could promote substance use. The disruptions reflected in the instability of their lives may be a source of anxiety and sadness, which could lead to substance use as a method of self-medication. This has been found to be true for adolescents (Henry, Feehan, McGee, & Stanton, 1993; Simons, Whitbeck, Conger, & Melby, 1991), and there is some evidence that it may be true for emerging adults as well (Harlow, Mitchell, Fitts, & Saxon, 1999). Although life satisfaction and well-

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being generally increase from adolescence to emerging adulthood (Schulenberg & Zarrett, in press), there is also a sharp increase in serious psychopathology in emerging adulthood (e.g., major depression). It may be among the latter category that drug use for self-medication is most common (Khantzian, 1997).

Hypothesis 4: Instability will increase substance use in emerging adulthood, i.e., emerging adults who experience a relatively high number of instability events in residence, love relationships, school, and work will have higher rates of substance use. Furthermore, the relation between instability and substance use will be mediated by mood disruptions, i.e., a high number of instability events will lead to anxiety and sadness, which in turn will motivate substance use.

Hypothesis 5: Substance use in emerging adulthood will rise after specific instability events, i.e., in the weeks following a transition in residence, love, school, or work. This rise will be mediated by mood disruptions, i.e., negative moods will rise following a transition, which will lead to a rise in substance use.

THE SELF-FOCUSED AGE

Emerging adulthood is arguably the most self-focused time of life. Children and adolescents are self-focused in their own way, but they always have their parents and teachers to answer to on a daily basis, and these adults set rules and standards for their behavior and apply sanctions when they fail to comply. Beyond emerging adulthood, once enduring commitments are made in love and work, love partners and work organizations and informal work groups set standards and expectations for the behavior of adults, and the roles that adults take on require them to be less self-focused and more considerate of others.

In contrast, most emerging adults are exceptionally free from daily obligations to others, which allows them to be exceptionally self-focused. This is not meant pejoratively. To say they are self-focused does not mean that they are selfish or egocentric; in fact, in terms of their social understanding, they are considerably less egocentric than children or adolescents (Arnett, 2004; Labouvie-Vief, in press). Being self-focused simply means that they are freer than people in other age periods to make decisions independently, without being required to obtain the permission or consent of others. They decide independently everything from what groceries to buy to what job to seek. And there are many decisions to be made in the course of emerging adulthood about where to live, how to manage money, what kind of education or training to pursue, whom to date or live with or break up with, and so on. Being self-focused allows emerging adults to devote their energies to gaining the experience that will allow

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them to make the decisions that will lay the foundation for their adult lives. They do not expect to be self-focused forever, nor would most of them want to be, but during emerging adulthood they regard being self-focused as necessary in order to prepare themselves for adulthood.

Being self-focused means that the social network and relationships that act as forms of social control in other age periods are less likely to exist or are more transient and unstable in emerging adulthood. They still have relationships with their parents, and in fact they typically get along much better with them than they did as adolescents (Aquilino, in press; Arnett, 2004), but typically they do not see their parents on a daily basis because they have moved out of the household. Even if they still live with their parents, they tend to see them less frequently and are monitored much less by them. They have love partners, but these partners change, and most also have periods without a love partner. They have employers and coworkers, but they change jobs so frequently – an average of seven times during their twenties (Hamilton & Hamilton, in press) – that these relationships are unlikely to be very important as a source of social control. Emerging adults also spend more of their leisure time alone than any other age group except the elderly (Larson, 1990), which is another reflection both of the self-focused nature of emerging adulthood and the lack of social control during these years.

Social control requires a group whose opinions the person values and does not want to risk damaging by engaging in disapproved behavior (Gottfredson & Hirschi, 1990). When social networks are tenuous, behavior that violates norms is more likely, including drug use. This has been found to be true for adolescents (Ellickson, Collins, & Bell, 1999) and is likely to be even truer of emerging adults, given the decline in social control that takes place during this period.

The one part of the social network that may remain strong or even become stronger in emerging adulthood is friends. There is little research on friendships in emerging adulthood, but it could be predicted that friendships have a central place in the emotional lives of emerging adults, especially for those who are not currently in a romantic relationship. Even in adolescence, emotional intimacy is greater with friends than with parents in many respects (Youniss & Smollar, 1985), and this tendency may deepen after emerging adults move out of their parents' household and no longer see them on a daily basis. But the part of the social network that involves friends may not act as a source of social control. On the contrary, people of all ages tend to select friends who are similar to themselves in many respects (Berndt, 1996), and it seems likely that, as has been found for adolescents (Kobus, 2003), emerging adults who have a proclivity for substance use will establish friendships and encourage rather than discourage substance use within their friendship group.

A recent study of emerging adulthood substance use rose in adolescence to emerging adulthood and then declined further, becoming a criterion of financial control, substance use

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A recent study supports the relation between social control and substance use in emerging adulthood (Kypri, McCarthy, Coe, & Brown, 2004). The study found that substance use rose in the year following high school, i.e., during the transition from adolescence to emerging adulthood, as emerging adults moved out of their parents' household and parental control declined. Substance use rose further the following year, as many emerging adults moved out of their college dormitories and social control declined further, because the move put them out of the monitoring of college dormitory officials. Thus as emerging adults became more self-focused and less subject to social control, substance use increased.

Hypothesis 6: Emerging adults will be more likely to describe themselves as self-focused in various respects than persons in other age periods, and this will partly explain the higher rates of substance use in emerging adulthood.

Hypothesis 7: Social control will decline from adolescence to emerging adulthood, then rise from emerging adulthood to young adulthood. Substance use over this period will be inversely related to social control.

Hypothesis 8: Within groups of emerging adults, those who report higher self-focus and lower social control will have the highest rates of substance use.

Hypothesis 9: Emerging adults who use substances and/or who are similar in other characteristics that place them at risk for substance use will tend to select each other as friends, and after such a friendship is formed their substance use will increase as they each provide the other with a social context for substance use.

THE AGE OF FEELING IN-BETWEEN

Emerging adulthood is the age of feeling in-between, neither adolescent nor fully adult, on the way to adulthood but not there yet. When asked whether or not they feel have reached adulthood, the majority of 18 to 25 year olds respond neither yes nor no but "in some ways yes, in some ways no" (Arnett, 1997, 1998a, 2000, 2001, 2003, 2004). The criteria most important to them as markers of adult status are not the traditional demographic markers such as finishing education, marriage, or parenthood – in fact, all of these rank very low in this author's research – but more intangible, psychological, gradual qualities such as accepting responsibility for one's self and making independent decisions, along with the more tangible but still gradual criterion of financial independence. Because the criteria they value most as markers

their adult lives. They do not want to be, but during necessary in order to prepare

relationships that act as forms or are more transient and less with their parents, and they did as adolescents do not see their parents on a regular even if they still live with them monitored much less by them. Most also have periods of stability but they change jobs so frequently (Hamilton & others, 1990), which is another factor and the lack of social

control values and does not. Gottfredson & Hirschi, 1990, suggests norms is more likely, and others (Ellickson, Collins, & others, 1998), given the decline in

relationships even become stronger friendships in emerging adulthood. They play a place in the emotional development currently in a romantic relationship with friends than with family. A tendency may deepen as they no longer see them on a regular basis. Friends may not act as a support and to select friends who are similar. It seems likely that, as they age, those who have a proclivity for substance use rather than discourage

of adulthood are gradual, their sense of becoming an adult is also gradual, and most do not feel fully adult until at least their late twenties.

This author's studies on conceptions of adulthood have included items pertaining to substance use, and the results on those items provide interesting additional insights on how substance use is viewed in relation to perceptions of adult status. Consistently, a majority of emerging adults view "avoid drunk driving" as a requirement for adulthood, whereas a smaller percentage, usually about one fourth, view "avoid becoming drunk" in that light (Arnett, 1998a, 2001). "Avoid illegal drugs" is in the middle, endorsed as a criterion for adulthood more widely than "avoid becoming drunk" but not as widely as "avoid drunk driving." There are ethnic differences, with Whites being less likely than African Americans, Latinos, or Asian Americans to view avoidance of becoming drunk or avoidance of illegal drugs as necessary for adult status (Arnett, 2003). However, across ethnic groups, the three items on avoiding substance use are more widely endorsed as criteria for adulthood than are role transitions such as finish education and marriage.

These findings have important implications with respect to substance use. The subjective status of emerging adults as being in between adolescence and adulthood could mean that they feel that, because they are no longer adolescents, they are capable of deciding for themselves whether or not to use substances. But if they also feel that they are not yet adults, they may not yet feel committed to adult standards of behavior and an adult level of responsibility. They may feel that they have a certain freedom to do things during this age period that will not be acceptable once they reach adulthood. This may include substance use. Indeed, an emerging adult who gets drunk several times a week and occasionally uses marijuana, ecstasy, or other drugs is not unusual and is not necessarily headed for an enduring substance abuse problem (Schulenberg & Maggs, 2002). People in Western societies tend to see this as part of the daring, exuberance, and license of youth. In contrast, a 35 or 40 year old who is engaged in the same type of behavior would be viewed very differently, much more negatively (Schulenberg & Zarrett, in press).

Because trying substances during emerging adulthood frequently is informally tolerated (and even normative for alcohol use), it can be difficult to tell apart the experimenters from those who have an enduring substance use problem. Some emerging adults do have a problem with substance abuse that will endure long after emerging adulthood, but there are also many people who use substances, often to excess, during emerging adulthood, and then give them up after achieving adulthood, with no long term negative consequences. If examined only during emerging adulthood, these two types of substance users can be difficult to distinguish because during emerging adulthood their behavior looks the same. For example, Schulenberg and his colleagues (1996; Schulenberg & Zarrett, in press), using longitudinal Monitoring the Future data, have

found that a "fling" group of not before or after is very d substance use also increases late twenties (see also Moffitt, 1993). The "fling" group by their mid-twenties a group continue to feel in-between fully adult yet give them lic

Hypothesis 10: Emerging adulthood will be more likely for those who feel they have not yet reached adulthood.
Hypothesis 11: Emerging adulthood will be more likely for those who use substances as a way to feel more like an adult than one that they will

THE AGE OF POSSIBILITIES

It has been argued that the late 20s and early 30s are a critical period for development in several respects. First, it is the age when young adults have the opportunity to leave the home and have an environment of their own. For adolescents, the home environment was pathologically controlling, leaving it. There is evidence that this period is a critical period for development (see Schulenberg & Maggs, in press). Second, emerging adulthood is almost universal. Near the long run, even if the

It is the second of two critical periods. Because emerging adulthood is high, they may not see it as a critical period. Many of them believe that they are not yet adults, with little concern about the consequences of drug use or suffering any of the negative consequences of drug use. They are likely to have an optimistic bias; that drug use are likely to have an optimistic bias, but the degree of optimism is high. Unfortunately, on the optimistic bias

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found that a "fling" group of people who use substances in emerging adulthood but not before or after is very difficult to distinguish from an "increased" group whose substance use also increases during emerging adulthood but remains high through the late twenties (see also Moffitt, 1993). Perhaps those in the "fling" group have had their fling by their mid-twenties and have begun to feel more adult, whereas the "increased" group continue to feel in-between through their late twenties and believe that not being fully adult yet give them license for substance use.

Hypothesis 10: Emerging adults who feel they have not yet reached adulthood will be more likely to use substances than emerging adults who feel they have reached adulthood.

Hypothesis 11: Emerging adults who use substances will view substance use as a behavior that is acceptable at their current age but one that they will give up in the course of growing into adulthood.

THE AGE OF POSSIBILITIES

It has been argued that emerging adulthood is the age of possibilities, in two respects. First, it is the age of possibilities in the sense that it is a time when people have the opportunity to make dramatic changes in their lives. In contrast to children and adolescents, emerging adults become free of their family environment; if that environment was pathogenic they sometimes turn in a much healthier direction after leaving it. There is evidence from research on resilience that emerging adulthood may be a critical period for the expression of resilience (Masten, Obradovic, & Burt, in press). Second, emerging adulthood is a time when hopes are high, when optimism is almost universal. Nearly all emerging adults feel life will work out well for them in the long run, even if their lives are not so good or promising in the present.

It is the second of these aspects that applies to drug use in emerging adulthood. Because emerging adults are so optimistic, because their expectations for life are so high, they may not see negative consequences as likely to result from their substance use. Many of them believe they can get drunk and try various drugs now, if they choose to, with little concern about getting into a car crash, becoming addicted, being arrested, or suffering any of the other negative consequences of substance use. They have an optimistic bias; that is, they may not believe the potential negative consequences of drug use are likely to happen to them (Weinstein, 1989). People of all ages tend to have an optimistic bias, but it may be higher in emerging adulthood than later in adulthood, and the degree of optimistic bias in emerging adulthood may in turn be related to drug use. Unfortunately, so far no studies have compared emerging adults to older adults on the optimistic bias.

Would the optimistic bias be higher in emerging adulthood than in adolescence? This is more difficult to predict. Adolescents may be less optimistic than emerging adults in some respects, given that well-being and life satisfaction rise for most people from adolescence to emerging adulthood (Schulenberg & Zarrett, in press). On the other hand, emerging adults are more realistic and less grandiose than adolescents. For example, more adolescents than emerging adults plan to be superstars in sports, acting, or music (see also Csikszentmihalyi & Schneider, 2000; Arnett, 2004). Thus, it may be that these two trends offset each other, resulting in no change in the optimistic bias from adolescence to emerging adulthood.

Hypothesis 12: Emerging adults with a stronger optimistic bias with respect to substance use will be more likely to engage in substance use, relative to other emerging adults.

Hypothesis 13: Optimistic bias with respect to substance use will be higher in emerging adulthood than in later adult age periods, which will partly explain why substance use is highest in emerging adulthood.

Hypothesis 14: Two distinct types of emerging adults will be found to use substances, those who have especially high well-being and use substances out of exuberance, and those who have especially low well-being and use substances for the purpose of self-medication. Both types will use substances more than emerging adults in the middle range.

CONCLUSION

Emerging adulthood is a new period of the life course in industrialized societies, and among its notable features is that it is the period when drug use is highest. The five features that I have proposed as distinguishing qualities of emerging adulthood help explain why drug use is highest during emerging adulthood. The hypotheses I have presented here can be put to empirical tests as a step toward a fuller understanding of the developmental basis of drug use during this age period.

It is helpful to understand the emerging adult years as a separate period of the life course rather than as simply late adolescence or the transition to adulthood because viewing it as a period of the life course leads us to consider what is going on developmentally during this time rather than simply focusing on the timing of transition events such as marriage. There may be features in addition to the five presented here that are characteristic of emerging adulthood, including some that apply specifically to substance use. Here as in other areas, there is much to be learned about

the developmental character of this period. A paradigm is offered in the article about this fascinating and

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the developmental characteristics of emerging adulthood. This emerging adulthood paradigm is offered in the hope that it will inspire developmental thinking and research about this fascinating and important age period.

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