You Can't Always Get What You Want:
Educational Attainment, Agency, and Choice

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Using educational attainment to indicate socioeconomic status, the authors examined models of agency and effects of choice among European American adults of different educational backgrounds in 3 studies. Whereas college-educated (BA) participants and their preferred cultural products (i.e., rock music lyrics) emphasized expressing uniqueness, controlling environments, and influencing others, less educated (HS) participants and their preferred cultural products (i.e., country music lyrics) emphasized maintaining integrity, adjusting selves, and resisting influence. Reflecting these models of agency, HS and BA participants differently responded to choice in dissonance and reactance paradigms: BA participants liked chosen objects more than unchosen objects, but choice did not affect HS participants' preferences. Results suggest that HS and BA models of agency qualitatively differ, despite overlap between HS and BA worlds.

In their classic rock-and-roll anthem, the Rolling Stones express a basic fact of life: You can't always get what you want. Yet psychological studies repeatedly demonstrate that when people do get what they want—that is, when they get to express and act on their personal preferences through choice—they are happier, are healthier, perform better, persevere longer, and produce more than when they do not get to make choices (e.g., Amabile & Gitomer, 1984; Boggiano, Flink, Shields, Seelbach, & Barrett, 1993; Brehm, 1956; Cordova & Lepper, 1996; Deci, 1972; Deci & Ryan, 1987; Langer & Rodin, 1976; Zuckerman, Porac, Lathin, Smith, & Deci, 1978). In turn, many psychological theories equate choice with agency, as well as with the related constructs of self-efficacy, self-determination, self-direction, freedom, free will, primary control, and autonomy (Bandura, 1977, 1989, 1997, 2000; Brehm, 1966; Deci & Ryan, 1985, 1995; Gergen, 1982; Harré, 1984; Rychlak, 1979; Seligman, 1975; Wicklund, 1974).

Another basic fact of life, however, is that some people get more of what they want, more of the time, than others. In contemporary European American society, for example, people with higher socioeconomic status (SES) perceive and exercise more choice, control, self-efficacy, and self-direction than do people with lower SES (Gecas, 1989; Gurin, Gurin, & Morrison, 1978; Kohn & Schooler, 1983; Lachman & Weaver, 1998; Mirowsky & Ross, 1986; Reay, Davies, David, & Ball, 2001). This observation might lead to the conclusion that people with higher SES are more agentic than people with lower SES. Such a conclusion would be premature, however, because the vast majority of psychological studies have been conducted by higher SES, European American, college-educated researchers who used higher SES, European American college students as participants (Lott, 2002; Sears, 1986; Taylor, 1998). As a result, psychological research has yielded very little data regarding the meaning and experience of agency among non-college-educated, lower SES European Americans.

In the present research, we offer initial evidence that lower and higher SES European Americans engage with different symbolic and material worlds and thus have different ideas about what it means to be an agent. We focus on European Americans (EAs) in order to disentangle the effects of SES from those of race and ethnicity. In keeping with much research in sociology, epidemiology, anthropology, and health psychology, we use educational attainment as an indicator of SES, paying special attention to the divide between those who have a college degree (BAs)[1] and those who do not (HSs).[2] Overall, our studies suggest that the model of agency that is most prevalent in BA contexts emphasizes expressing uniqueness and exerting environmental control, whereas the model of agency that is most prevalent in HS contexts emphasizes maintaining personal integrity (e.g., honesty, loyalty, reliability, cross-situational consistency) and exerting self-control.

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[1] A college degree is the modal level of educational attainment for EAs with a college degree or more (e.g., MS, MA, PhD, MD, JD, and so forth); so this group is called "college educated" (BA), and the contexts with which this group engages are called "college-educated contexts" (BA contexts).

[2] A high school diploma is the modal level of educational attainment for EAs who have not received a college degree; so this group is called "high school educated" (HS), and the contexts with which this group engages are called "high-school-educated contexts" (HS contexts).

As further evidence of their different models of agency, we show that HS and BA EAs respond differently to the provision and usurpation of choice. Choice is a behavior through which EAs express themselves (Kim & Drolet, 2003; Kim & Markus, 1999; Tafarodi, Mehranvar, Panton, & Milne, 2002) and experience environmental control (Brehm & Brehm, 1981; Skinner, 1996). Because we expected that self-expression and environmental control would be critical to the BA model of agency, but not to the HS model, we predicted that having and making choices would enhance BA participants' experience of agency more than it would HS participants' experience. By the same token, we predicted that usurping choice would interfere with BA participants' experience of agency more than it would HS participants' experience.

Cultural Models of Agency

A useful theoretical framework for understanding group differences in psychological functioning is cultural models theory (D'Andrade, 1981; Fiske, Kitayama, Markus, & Nisbett, 1998; Holland & Quinn, 1987; Markus & Kitayama, 2003; Shore, 1996; Shweder, 1990, 2003; Strauss & Quinn, 1997; for related accounts of the social construction of psychological reality, see Berger & Luckmann, 1966; Luria, 1976; Sperber, 1985; Vygotsky, 1978). Cultural models are sets of assumptions that are widely (though not universally) shared by a group of people, existing both in individual minds and in public artifacts, institutions, and practices. At the individual level, these cultural models provide implicit blueprints of how to think, feel, and act. When people act according to these blueprints, they reproduce the public models, thereby perpetuating the cultural context from which both were derived.

One implication of the cultural models approach is that individuals are never monocultural, as they are always interacting with multiple cultural contexts (e.g., contexts of gender, ethnicity, SES, region, and sexual orientation). Cultural contexts are therefore not monolithic: Unique combinations of cultural models intersect within individuals, so that individuals may have different reactions to the same cultural contexts. Thus, although most HS and BA EAs interact with dominant, mainstream, European American values, meanings, and practices, the ways that they espouse, engage, and enact these cultural models may differ. Moreover, the fact that HS and BA EAs are often in transaction with the same cultural contexts means that overlap in models is expected.

Cultural models of self are perhaps the most extensively studied cultural models in social psychology (e.g., Markus & Kitayama, 1991; Markus, Mullally, & Kitayama, 1997; J. G. Miller, 1997, 2003; Triandis, 1989). According to the independent model of self, which is broadly distributed in BA EA settings, the self is a bounded, autonomous, independent entity composed of stable, unique, internal attributes. In contrast, the interdependent model of self, which is more broadly distributed in many other cultural contexts, views the self as a permeable, contextually sensitive, and relationally situated being.

Recently, Markus and Kitayama (2003) extended their work on models of self to an analysis of models of agency. They define models of agency as implicit frameworks of ideas and practices about "how to be" that guide action (see also Holland, Lachicotte, Skinner, & Cain, 1998; Inden, 1990) and broadly define agency itself as "the self in action" (Markus & Kitayama, 2003, p. 4). This definition of agency makes contact with current psychological

conceptions of agency as the agent–means segment of the agent–means–ends dynamic (e.g., Little, Oettingen, Stetsenko, & Baltes, 1995; Skinner, 1996). Markus and Kitayama suggest that because cultures vary in their understandings of what selves (or agents) are, they may also vary in their understandings of what a self's ends are, as well as in their understandings of what a self's means of attaining those ends might be.

In the psychological study of agency and its related constructs, the prototypical agent–means–ends combination is "the self as agent, the self's actions or behaviors as the means, and an effected change in the social or physical environment as the outcome" (Skinner, 1996, p. 558). In other words, agency has usually been equated with "controlling the world" (Rothbaum, Weisz, & Snyder, 1982) through overt behavior. Other psychological constructs traditionally framed in terms of environmental control are self-efficacy (Bandura, 1977), autonomy (Deci & Ryan, 1987), primary control (Heckhausen & Schulz, 1995; Rothbaum et al., 1982), perceived mastery or control (Lachman & Weaver, 1998; Pearlin & Schooler, 1978), internal locus of control (Rotter, 1966), influence (Morling, Kitayama, & Miyamoto, 2002), central control (Thompson, Nanni, & Levine, 1994), problem-focused coping (Folkman & Lazarus, 1980), active coping (Carver, Scheier, & Weintraub, 1989; Holahan & Moos, 1987), and assimilative processes like tenacious goal pursuit (Brandtstädter & Renner, 1990).[3] These processes have historically been contrasted with relinquishment of control (Rothbaum et al., 1982), perceived constraint (Lachman & Weaver, 1998), external locus of control (Rotter, 1966), helplessness (Seligman, 1975), and avoidant or passive coping (Carver et al., 1989; Holahan & Moos, 1987)—all of which have been associated with a variety of negative health outcomes (see, e.g., Rodin & Timko, 1992).

Psychological researchers are increasingly recognizing, however, that people have goals other than controlling the world, such as controlling the self (Rothbaum et al., 1982; Weisz, Rothbaum, & Blackburn, 1984). The means to this end often entail coping self-efficacy (Bandura, 1989), secondary control (Heckhausen & Schulz, 1995; Rothbaum et al., 1982; Weisz et al., 1984), adjustment (Morling et al., 2002), consequence-related control (Thompson et al., 1994), emotion-focused coping (Folkman & Lazarus, 1980), and accommodative processes like flexible goal adjustment (Brandtstädter & Renner, 1990).

Although some researchers have argued that controlling the world is developmentally primary and usually preferred to controlling the self (e.g., Heckhausen & Schulz, 1999), others have shown that age (Brandtstädter & Renner, 1990), objective controllability of situations (Sieber et al., 1992), and cultural contexts (Gould, 1999) partly determine which of the two models of agency is primary and preferred. Further, some of these researchers have explicitly linked these different models of agency to different models of self, supporting the notion that ideas about agents, means, and ends do indeed systematically covary (e.g., Lam & Zane, 2004). In keeping with these latter authors, we suggest that

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[3] Although some researchers have carefully distinguished between these constructs, especially control versus coping constructs (e.g., Skinner, 1996), here we are noting their similarities, emboldened by recent articles showing the high intercorrelations among some of them (e.g., Gebhardt & Brosschot, 2002; Judge, Erez, Bono, & Thoresen, 2002).

the material and symbolic features of lower and higher SES worlds support and reflect different ideas about what agents are, what they do, and how they do it.

Culture, Agency, and Choice

Much of the experimental evidence for cultural variability in models of agency comes from studies comparing European American, Asian American, and Asian participants in paradigms involving choice. Their results suggest that agents from independent, EA contexts benefit from exerting environmental control and expressing themselves through choice (insofar as improved performance and increased liking are beneficial), whereas agents from interdependent, Asian cultural backgrounds benefit from discovering and adjusting to the expectations of important in-group others. For example, Iyengar and Lepper (1999) showed that EA schoolchildren's liking for and performance on cognitive tasks improved when they made choices about the tasks for themselves but suffered when others made these choices for them. In contrast, Asian American schoolchildren's liking for and performance on the same tasks improved when in-group others (e.g., peers or parents) made these choices. Moreover, Kim and colleagues (Kim & Drolet, 2003; Kim & Markus, 1999) demonstrated that it is the uniqueness of the self in EA contexts that EAs want to express. In their studies, EA participants preferred unique objects and variety seeking in choice rule use more than did Asian participants.

Researchers have also used the standard free-choice dissonance paradigm to make similar points. Heine and Lehman (1997) documented that whereas EA college students evaluated chosen objects more favorably after choosing them (and evaluated rejected objects less favorably after rejecting them), Asian Canadian and Japanese college students did not show this classic dissonance effect. Following up on this finding, Hoshino-Browne, Zanna, Spencer, and Zanna (in press) and Kitayama, Snibbe, Markus, and Suzuki (2004) similarly demonstrated that East Asian college students did not justify their choices unless social contexts were evoked.

Agency in BA and HS Contexts

National and ethnic groupings are not the only sources of cultural variability in psychological tendencies. A growing body of research indicates that SES likewise organizes the values, meanings, and practices surrounding self and agency (Kusserow, 1999a, 1999b; Lamont, 1992, 2000; Lee & Tiedens, 2001; Markus, Curhan, Ryff, & Palmerscheim, 2004; Markus, Ryff, Conner, Pudberry, & Barnett, 2001; Markus, Ryff, Curhan, & Palmerscheim, 2004; Steele & Sherman, 1999; Wiley, Rose, Burger, & Miller, 1998). Unlike studies that have contrasted independent and interdependent self-construals, studies on SES, self, and agency have contrasted the meanings of independence in lower and higher SES contexts. These studies show that although HS and BA EAs consider themselves to be independent, what they understand *independent* to mean substantially differs.

As formulated by self-theorists (e.g., Fiske et al., 1998), the independent self is a multifaceted complex, embodying self-expression, self-actualization, personal uniqueness, and intrapersonal consistency between internal attributes and behaviors, as well as self-reliance, self-defense, personal integrity, and cross-situational stability of personal attributes. We propose that BA EAs and contexts are likely to emphasize the former set of independence-related tendencies, whereas HS EAs and contexts are likely to emphasize the latter set of independence-related tendencies. In turn, we suggest that agency in both contexts is related to these different views of independence: Being an agent in BA contexts means actualizing and expressing one's unique, internal attributes—actions that often require arranging or changing the world to reflect those attributes. Being an independent agent in HS contexts, on the other hand, means maintaining one's personal integrity—an action that often requires steeling oneself against situational exigencies.

One body of research that highlights SES differences in models of agency is Kusserow's (1999b) studies on the socialization of individualism in lower and higher SES contexts. Kusserow observed that although lower and higher SES caregivers were equally concerned with raising their children to be individualistic, what they meant by *individualistic* qualitatively differed. Higher SES caregivers endorsed a "soft" individualism, viewing children as delicate "flowers" that need to discover and develop their own unique qualities in order to blossom out into a welcoming world. Lower SES caregivers, on the other hand, endorsed a "hard" individualism, viewing children as needing to be "toughened up" so that they will be able to keep themselves and their values intact in an uncertain world.

P. Miller and colleagues similarly noted that caregivers in HS communities frequently attempt to "toughen" their children by teasing them (P. Miller, 1986), by contradicting their narratives (Wiley et al., 1998), and by discussing negative events and emotions (Burger & Miller, 1999). Likewise, Lamont's (1992, 2000) interviews with lower and higher SES adults showed that lower SES respondents highlight the "harder" aspects of independence, including self-reliance, self-discipline, and personal integrity, whereas higher SES respondents highlight the "softer" aspects, like self-actualization and self-expression. Most recently, analyses of survey data, interview responses, and magazine advertisements by Markus, Ryff, et al. (2004; see also Markus, Curhan, et al., 2004) showed that HS participants and media place greater emphasis on maintaining integrity, adjusting to contingencies, and resisting influence, whereas BA participants and media place greater emphasis on personal growth, control, and productivity.

SES differences in symbolic worlds partly reflect the different material worlds with which lower and higher SES individuals engage. Lower SES occupations pay considerably less than do higher SES occupations and afford substantially less choice, control, and self-direction (Inkeles, 1969; Kohn, Naoi, Schoenbach, Schooler, & Slomczynski, 1990; Kohn & Schooler, 1973, 1983). Owing in part to less wealth and income, lower SES adults have fewer and more dangerous places where they can afford to live (Halle, 1984), less geographic mobility (Argyle, 1994; Markus, Curhan, et al., 2004), less leisure time (Franks, Herzog, Holmberg, & Markus, 1999), and worse health outcomes (e.g., Adler et al., 1994) than do higher SES adults.

Corresponding to their different symbolic and material worlds, adults at different levels of SES differ on a wide range of agency-related outcomes. Lower SES is associated with less personal mastery and more perceived constraint (Lachman & Weaver, 1998), less self-efficacy (Gecas, 1989), more external locus of control (Mirowsky & Ross, 1986), more powerlessness (Mirowsky

& Ross, 1986), and less self-directedness (Kohn & Schooler, 1973, 1983). At the same time, however, lower SES respondents report being just as satisfied with their lives as do higher SES respondents (Davis, 1982; Markus, Curhan, et al., 2004; Markus, Ryff, et al., 2004; Rossi, 2001). This finding further supports the hypotheses that HS and BA models of agency differ and that existing measures do not fully capture the HS model.

Educational Attainment as an Indicator of SES

Individual SES is traditionally assessed with educational attainment, occupational prestige, or income. These indicators represent different facets of the SES complex and are therefore usually only moderately correlated (e.g., Winkleby, Jatulis, Frank, & Fortman, 1992). For these reasons, researchers often advise against combining indicators (e.g., Graetz, 1995; Socioeconomic Working Group, 1985).

In the following studies, we used educational attainment (i.e., highest earned degree) as the primary indicator of SES. Educational attainment is the indicator most closely associated with the sociocultural and psychosocial phenomena in question: lifestyle, behaviors, and agency-related psychological tendencies (Kohn & Schooler, 1973, 1983; Matthews, Kelsey, Meilahn, Kuller, & Wing, 1989; Meyer, 1990; Ross & Wu, 1995). Also, educational attainment often outstrips other SES indicators in predicting such consequential outcomes as cardiovascular disease (Winkleby et al., 1992) and all-cause mortality (Elo & Preston, 1996; Kitagawa & Hauser, 1973) and has therefore become the most widely used SES indicator in studies of health in the United States (Liberatos, Link, & Kelsey, 1988).

Among the different levels of educational attainment, we focused most closely on the distinction between those who have a college degree and those who do not. Educational attainment is most predictive of the outcomes in question when operationalized as degrees earned (high school or college), rather than as years in school (Backlund, Sorlie, & Johnson, 1999; Faia, 1981). In the 1990s, for example, a bachelor's degree, compared with a high school diploma, conferred a 34-percentile-point advantage in occupational prestige and significantly more job stability (Pascarella & Terenzini, 1991). In 2002, moreover, college-educated EAs could expect to earn twice as much as high-school-educated EAs over their work life-course (Day & Newburger, 2002).

College educations not only bestow economic capital but also impart values and practices relating to self-actualization and self-expression (Newcomb, 1943). As social status has become defined more in terms of education than of wealth, these softly individualistic qualities have become the earmarks of the cultural elite: "Self-actualization is what educated existence is all about. For members of the educated class, life is one long graduate school" (Brooks, 2000, p. 18; see also Florida, 2002).

Hypotheses

The model of agency that is expected to be widely distributed in BA contexts is one of actualizing and expressing a unique self (e.g., Maslow, 1962) and, in so doing, influencing material and social worlds in ways that reflect the self's unique attributes (e.g., Deci & Ryan, 1985; see also Fiske et al., 1998; Sampson, 1988). Choice is especially relevant to this model of agency, because

choosing is an action through which agents may simultaneously express unique preferences and alter the world according to those preferences. Thus, choosing in BA contexts is a primary medium through which agency is experienced. Conversely, not getting to choose may threaten the experience of agency in these settings and thus often has negative effects on such dependent measures as task perseverance, task enjoyment, task performance, and satisfaction with received objects (e.g., Iyengar & Lepper, 1999).

The model of agency that is expected to be widely distributed in HS contexts, on the other hand, emphasizes maintaining personal integrity and controlling the self, often in spite of material and social worlds that interfere with these tasks. Because expressing preferences and influencing environments are not central to this model of agency, choosing is not likely to be the critical behavior around which an HS actor's sense of agency is built.

To explore how agency may be differently lived in HS and BA contexts, we designed three studies that examined models of agency and effects of choice in HS and BA contexts. The first study investigated models of agency in cultural products that are differently preferred by HS and BA EAs—namely, country and rock music lyrics. We predicted that rock music, which is preferred by BA EAs, would contain more depictions of personal uniqueness, environmental control, and exertion of social influence, whereas country music, which is preferred by HS EAs, would contain more depictions of personal integrity, self-control, and resistance to social influence.

We then reasoned that (a) if models of agency among EAs vary by SES and (b) if different models of agency differently emphasize choice, then (c) getting or not getting to choose should differently affect HS and BA participants. Following this logic, Study 2 used the standard free-choice dissonance paradigm to test the hypotheses that BA participants' evaluations of an object would improve as a result of choosing it, whereas HS participants' evaluations would not change. Study 3 then used a reactance paradigm to test the hypothesis that not getting to choose would cause BA participants to lower their evaluations of an unchosen gift but would not affect HS participants' evaluations.

Study 1 Overview

Cultural models reside not only in individual psyches but also in the products and practices with which individual psyches are constantly interacting. Because cultural models are designed to be invisible to the individual minds that enact them, examining their manifestations in social artifacts may offer clearer insights into them than would examining their manifestations at the individual, psychological level. We therefore began this set of studies by looking at representations of agency in rock and country music lyrics. Psychologists have recently begun to document both that music lyrics affect individual psychological tendencies (e.g., Anderson, Carnagey, & Eubanks, 2003; Rubin, West, & Mitchell, 2001) and that music preferences reflect individual psychological tendencies (Rentfrow & Gosling, 2003). Popular music lyrics therefore seemed likely to be especially pervasive and effective carriers of cultural models.

Indeed, in previous studies, popular music lyrics have proven to be colorful indicators of cultural values (Lomax & Halifax, 1971; Rothbaum & Tsang, 1998; Rothbaum & Xu, 1995). For example, Rothbaum and Tsang (1998) compared representations of parent–

child relationships in Chinese and American popular songs and found that more Chinese popular songs mentioned children appreciating, loving, and wanting to please their parents, whereas more American popular songs mentioned children being dissatisfied, angry, and indifferent to their parents. The authors linked these musical differences to cultural differences in filial piety.

We similarly hypothesized that the music lyrics prevalent in lower and higher SES contexts would reflect these contexts' different models of agency. It is important to note that there are no reported differences in the extent to which EAs of different educational levels listen to or enjoy popular music. This contrasts with other media such as magazines, newspapers, and books, which HS adults are known to read less than do BA adults (Herzog, Franks, Markus, & Holmberg, 1998). Musical preferences, however, have been shown to vary according to educational attainment, as revealed by both the U.S. Census Bureau's 1992 Survey of Public Participation in the Arts (SPPA; see U.S. Department of Commerce, Bureau of the Census, 2002) and the 1993 General Social Survey (see Davis, Smith, & Marsden, 2002). Specifically, these studies show that less-educated Americans tend to like country music to the exclusion of other musical genres, whereas more educated Americans tend to like most other musical genres except country (Bryson, 1996; Zill & Robinson, 1994). In other words, higher status Americans tend to be music "omnivores," and lower status Americans tend to be "univores" (Bryson, 1997; Peterson & Kern, 1996). Higher status Americans' omivorousness may not extend to country music because higher status groups tend to devalue attributes associated with low-status groups (Bryson, 1996; see Schmader, Major, Eccleston, & McCoy, 2001, for a discussion of value asymmetries).

Using the most recent administration of the SPPA (2002), we sought in Study 1a to replicate these findings, focusing exclusively on the relationship between educational attainment and liking of the two most popular American musical genres: rock and country music. In Study 1b, we then used content analysis to explore whether rock and country music lyrics differently portray agency.

Study 1a

Method

Overview

The 2002 administration of the SPPA was the fifth in a series of national studies on arts participation, sponsored by the National Endowment for the Arts (U.S. Department of Commerce, Bureau of the Census). All noninstitutionalized adults living in the United States and over the age of 18 were eligible to participate. The SPPA was appended to the U.S. Census Bureau's Current Population Survey, which is an ongoing, monthly, national household sample survey of about 60,000 eligible households. Twenty-five percent of the Current Population Survey households in August 2002 were sampled for the SPPA supplement. The sample was selected using a stratified, multistage, clustered design that drew from Census Bureau population counts. Overall response rate was 70%.

Participants

A total of 17,135 respondents completed the 2002 SPPA. To control for ethnicity, we included only respondents who described themselves as White, reducing the sample size to 14,381. Respondents who identified themselves as university students ($n = 209$) were excluded from analyses,

because classifying them on the basis of educational attainment was ambiguous. This left a total of 14,172 respondents (7,680 women and 6,492 men).

Factors

Respondents were divided into five groups, on the basis of their highest earned degree. Education groups included those with less than a high school diploma ($< HS$; $n = 1,919$), with a high school diploma (HS; $n = 7,186$), with an associate's degree (AA; $n = 1,254$), with a bachelor's degree (BA; $n = 2,502$), and with a master's or doctoral degree ($\geq MA$; $n = 1,314$).

Musical preferences vary by gender and region (Zill & Robinson, 1994), and so we included these factors in our analyses. Regions included the Northeast ($n = 3,028$), Midwest ($n = 3,740$), South ($n = 4,013$), and West ($n = 3,391$). Age groups likewise differ in their musical preferences (Zill & Robinson, 1994). We therefore also included a seven-category measure that divided respondents into the following age groups: 18–24 ($n = 1,136$), 25–34 ($n = 2,480$), 35–44 ($n = 3,063$), 45–54 ($n = 2,764$), 55–64 ($n = 1,951$), 65–74 ($n = 1,488$), and 75–80 ($n = 1,290$).

Music Items

Respondents indicated whether they liked each of 21 musical genres by checking *yes* or *no* on a questionnaire. Only responses to the rock and country items were considered here.

Results and Discussion

As hypothesized, greater educational attainment was associated with a higher probability of liking rock music among EA respondents to the 2002 SPPA, and lower educational attainment was associated with a higher probability of liking country music. Figure 1 presents the percentages of respondents who liked rock and country music by level of educational attainment.

Overview of Analyses

Responses to the country and rock music items were analyzed in two separate series of sequential logistic regressions. For each series, we entered gender and age in the first model, with age categories contrast-coded so that every level except the first was compared with the preceding level. At the second step, we then added region as an indicator variable, with the South as referent. The third and final step added educational attainment to the model. Educational attainment was contrast-coded so that every level
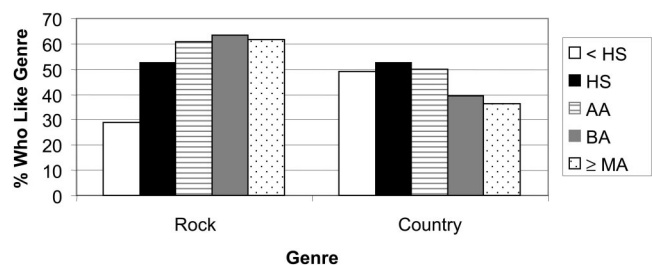

Figure 1. Percentage of respondents to the Survey of Public Participation in the Arts who like country and rock music by level of educational attainment. $< HS$ = less than a high school diploma; HS = high school diploma; AA = associate's degree; BA = bachelor's degree; $\geq MA$ = master's degree or higher.

except the first was compared with the preceding level. The difference between the −2 log likelihood model fit (as measured by chi-square) of the preceding and subsequent models indicated the increased explanatory effects of the subsequent model (i.e., of the additional factors).

Liking of Rock Music

In the series of sequential logistic regressions on the percentage of respondents who liked rock music, the first model (including age and gender) was significant, $\chi^2(7, N = 14,172) = 967.90, p < .001$. More women (53.9%) than men (51.8%) liked rock music ($p < .001$). For respondents 45–54 and younger, each increase in age level was associated with a significant increase in percentage of respondents who liked rock music. For respondents 55–64 and older, however, increases in age level were associated with significant decreases in percentages of rock music fans.

Including region in the model at the second step significantly increased model fit, $\chi^2(3, N = 14,172) = 74.14, p < .001$. As compared with respondents in the South (47.1%), higher percentages of respondents in the Northeast (54.2%), Midwest (55.5%), and West (55.9%) liked rock music (all $ps < .001$).

Adding educational attainment to the model at the third step also significantly increased model fit, $\chi^2(4, N = 14,172) = 364.91, p < .001$. As predicted, the percentage of respondents who liked rock music generally increased by level of educational attainment. Significantly more HS respondents (52.7%) liked rock music than did < HS respondents (29%, $p < .001$), and significantly more AA respondents (61%) liked rock music than did HS respondents ($p < .01$). More BA respondents (63.5%) liked rock music than did AA respondents, although this difference was at the trend level ($p = .10$). BA and ≥ MA groups (61.6%), however, did not differ in their percentages of rock music fans.

Liking of Country Music

For the country music item, the first model (including age and gender) was significant, $\chi^2(7, N = 14,172) = 136.29, p < .001$. More women (54.2%) than men (45.8%) liked country music ($p < .001$). Generally speaking, the percentage of respondents who liked country music increased with each age category, except for the last two categories (65–74- and 75–80-year-olds), which had decreasing percentages of country music fans.

At the second step, including region significantly increased model fit, $\chi^2(3, N = 14,172) = 166.03, p < .001$. Compared with respondents in the South (49.5%), a lower percentage of Northeasterners (38.1%, $p < .001$), a higher percentage of Midwesterners (52.7%, $p < .05$), and a similar percentage of Westerners (49.0%, ns) liked country music.

As was the case with the rock music measure, introducing educational attainment at the third step also significantly increased model fit for the country music measure, $\chi^2(4, N = 14,172) = 212.18, p < .001$. With each increase in level of educational attainment after HS, the percentage of respondents who liked country music decreased. Fewer AA respondents (49.7%) liked country music than did HS respondents (52.3%, $p < .05$), fewer BA respondents (39.3%) liked country music than did AA respondents ($p < .001$), and fewer ≥ MA respondents (36.2%) liked country music than did BA respondents ($p < .05$). Unexpectedly,

more HS respondents liked country music than did < HS respondents (48.8%, $p < .05$).[4]

Study 1b

In Study 1b we used a content analysis to explore the models of agency in country and rock music lyrics. Because country and rock are predominantly EA genres, we expected that themes of independence and individual action would be highlighted. Yet the work of Kusserow (1999a, 1999b), Lamont (1992, 2000), and Markus, Curhan, et al. (2004; Markus, Ryff, et al., 2004) led us to believe that the genres would differ in the kinds of independence and individual action portrayed. We therefore closely analyzed representations of *independence* (how the self is independent) and *action* (what the independent self does) in song lyrics from these two genres. Additionally, preliminary analyses revealed that social influence was represented differently and often in the two genres (see Morling et al., 2002, for a discussion of the prevalence of social influence among EAs). In our final analysis, we therefore coded representations of *social influence* (i.e., the extent to which being independent means wielding influence, and the extent to which being independent means resisting influence).

We expected that in country music, the personal integrity aspect of independence (i.e., being honest, fair, reliable, and consistent across situations) would be more prevalent, whereas in rock music, the uniqueness aspect of independence would be more prevalent. Regarding individual actions, we expected country music to have more portrayals of controlling the self (controlling emotions, changing appraisals, adjusting goals, and so forth) and rock music to have more portrayals of expanding the self (expressing emotions, realizing talent, pursuing goals, and so forth). Finally, on the social influence dimension, we predicted that country music would have more examples of people resisting influence, whereas rock music would have more examples of people exerting influence.

Method

Materials

Country sample. Country songs were selected from two sources: *Country America* magazine's "Top 100 Country Songs of All Time" (October 1992) and *Billboard* magazine's Top 40 country singles charts for the years 1968, 1978, 1988, and 1998. The "Top 100 Country Songs of All Time" list resulted from merging readers' votes for favorite songs with those of country music critics. *Billboard* magazine charts, on the other

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[4] Income is another commonly used indicator of SES. To assess whether income shows the same relationship with liking of rock and country music as does educational attainment, we substituted the educational attainment measure with a continuous measure of household income (adjusted for household size) as the third step in the sequential logistic regressions. As was the case with educational attainment, including income significantly increased model fit for both the rock music measure, $\chi^2(1, N = 12,789) = 184.71, p < .001$, and the country music measure, $\chi^2(1, N = 12,789) = 11.78, p < .01$. (Sample size was reduced because of participants who did not provide income data.) For the regression on rock music liking, the positive direction of the regression coefficient ($B = .09, p < .001$) showed that increased income was associated with increased probability of liking rock music. For the regression on country music liking, the negative direction of the coefficient ($B = −.02, p < .01$) showed that increased income was associated with decreased probability of liking country music.

hand, were based on record sales and airplay. The top 50 songs on *Country America* magazine's list were combined with the top 10 songs on each of the 1968, 1978, 1988, and 1998 charts to create a preliminary sample of 90 songs. From this sample, 2 songs were removed because they were crossover hits (i.e., they appeared on both country and rock charts), and 1 song was removed because its lyrics could not be located. Two additional songs appeared twice—once on the *Country America* chart and once on the *Billboard* chart—and so their duplicates were removed, leaving a final sample of 85 country songs.

Rock sample. Rock songs were also selected from a vote-based chart and a sales-based chart. The vote-based chart, "The Top 100 Rock Songs Ever," was created by the music video station VH-1 in 1992 and was based on the votes of viewers and music critics. The sales-based charts were provided by *Billboard* magazine. As was the case with the country sample, the top 50 songs on VH-1's list were combined with the top 10 songs on each of the 1968, 1978, 1988, and 1998 charts to create a preliminary sample of 90 songs. From this sample, 4 songs were removed because they were crossover hits, and 1 was removed because it had no lyrics. An additional 4 songs appeared on both the VH-1 chart and the *Billboard* chart, and so their duplicates were removed, leaving a final sample of 81 rock songs.

Procedure

Four undergraduate research assistants, blind to hypotheses, initially used 20% of the songs (country, $n = 17$; rock, $n = 17$) to develop a coding scheme and to practice coding. These 34 songs were chosen so that 2 country songs and 2 rock songs were from each of the 4 years in the *Billboard* sample, and the remaining 9 country songs and 9 rock songs were randomly selected from the vote-based sample. After the code development phase, these 34 songs were discarded from the final set, as coders' judgments of them were no longer independent.

To create the coding scheme, coders first surveyed the 34 songs' lyrics and cataloged their representations of independence, action, and social influence. Judges were encouraged to focus only on the most obvious themes and to avoid making inferences. Judges then sorted these themes into categories informed by the self, agency, coping, and control literatures. Labels for categories, however, were derived from the data themselves. In this way, the resulting coding scheme reflected both inductive and deductive processes, heeding both psychological theory and the lyrics' contents. In the final coding scheme, presented in Table 1, each dimension of agency included two categories.

Using this coding scheme, one undergraduate and one graduate student judged whether each song mentioned each of the categories. Categories were not mutually exclusive, meaning that a song could be coded as mentioning any, all, or none of the categories. Both judges coded 20% of the final sample ($n = 34$) in common, to establish interrater reliability. Disagreements between judges on this set were discussed until consensus was reached.

Results and Discussion

Interrater Reliability

Coders agreed 90.4% of the time. Average Cohen's kappa was .76 (range = .60–1.00, SD = .10), indicating that reliability between coders was substantial (Landis & Koch, 1977).

Content Analysis

Table 2 presents the percentages of country and rock songs that mentioned the different categories of independence, action, and influence, as well as the results of chi-square tests for these comparisons. This content analysis revealed that the representa-

tions of agency (i.e., acting in the world) emphasized in country and rock music diverged considerably. Country songs more frequently portrayed managing, maintaining, and adjusting a self defined in terms of personal integrity. Rock songs, on the other hand, more frequently portrayed actualizing, expressing, and expanding a self defined in terms of uniqueness. In addition, more country songs were concerned with deflecting the influence of others (although this effect did not reach conventional levels of significance), whereas more rock songs were concerned with exerting influence over others.

Study 1 General Discussion

Studies 1a and 1b suggest that EAs with different levels of educational attainment have different patterns of musical preferences and, in turn, that the genres preferred by more and less educated EAs emphasize different models of agency. Study 1a establishes that the likelihood of preferring country music decreases with educational attainment, whereas the likelihood of preferring rock music increases with educational attainment. Analyses using income as the indicator of SES instead of educational attainment yield the same findings. Study 1b then reveals that being an agent in country songs more frequently means having integrity, controlling the self, and resisting social influence, whereas being an agent in rock songs more frequently entails being unique, actualizing and expressing that uniqueness, and exerting social influence.

These different understandings of agency in country and rock songs echo the observed associations between SES and coping, control, self-efficacy, and other agency-related constructs. Characters in rock songs are more actualizing, expressing, and influencing than are characters in country songs, just as higher SES adults tend to report feeling more autonomous, in control, and influential than do lower SES adults. Yet these psychological measures often do not reveal what HS adults are doing instead of influencing, actualizing, and expressing. This study suggests that lower SES adults are dedicating just as much time, effort, thought, and ink to managing their honesty, reliability, and integrity as higher SES adults are dedicating to cultivating, expressing, and expanding their uniqueness.

This content analysis also reveals that the models of agency in country and rock music lyrics are not mutually exclusive. Many country songs portray unique selves actualizing, expressing, and influencing, and many rock songs portray selves maintaining their integrity and resisting influence. What is different between the two genres, and, as we specifically examine in Studies 2 and 3, between HS and BA participants, is the relative prevalence and effects of these models.

Study 2

Perhaps the most famous social psychological paradigm demonstrating that BA participants like the things they choose (and dislike the things they reject) is the standard free-choice dissonance paradigm (Festinger, 1957). For over 45 years, social psychologists in North American and western European contexts have observed that when people choose between two equally attractive objects, they subsequently evaluate the chosen object more positively, and the rejected object less positively, than they did before

Table 1
Music Coding Categories

Category and theme	Examples
Independence	
Integrity	
Being honest, reliable	"I never promised you a rose garden"[a]
	"I was telling you no lies"[b]
Being loyal, faithful	"Stand by your man"[c]
	"Never gonna let you down, never gonna run around"[d]
Uniqueness	
Being unique, talented	"He ain't wrong, he's just different"[e]
	"He could play the guitar like ringing a bell"[f]
Being ideal, superlative	"Everyone could see what a prize he was"[g]
	"I'll be your hope, I'll be your dream, I'll be your fantasy"[h]
Action	
Self-management	
Adjusting goals, compromising	"If it don't come easy, you better let it go"[i]
	"OK. I guess I'll go home. It's late."[j]
Accepting reality	"Beatin' time is a losin' fight"[k]
	"Let it be"[l]
Minimizing loss, reconstruing	"Be glad we had some time to spend together"[m]
	"What could've been is better than what could never be at all"[n]
Waiting, vigilance	"I keep my eyes wide open all the time"[o]
	"Every step you take, I'll be watching you"[p]
Self-expansion	
Pursuing goals, dreams, ideals	"Takin' that new job in Tennessee"[q]
	"She's buying a stairway to heaven"[r]
Creating; artistic expression	"Momma sewed the rags together"[s]
	"The quartet practiced in the park"[t]
Self-actualizing	"I want all the love this life has to give"[u]
	"Your time has come to shine"[v]
Exploring, discovering	"Got a lead foot on my accelerator and the rearview mirror torn off"[w]
	"Lookin' for adventure, in whatever comes our way"[x]
Influence	
Resisting	
Rebelling against authority	"Take this job and shove it"[y]
	"Take a bow for the new revolution"[z]
Being wild, natural, free	"At least I know I'm free"[aa]
	"Born to be wild"[x]
Exerting	
Commanding, requesting	"Don't rock the jukebox"[bb]
	"Come on baby, light my fire"[cc]
Persuading	"Let me kiss ya, for old times' sake"[dd]
	"They whispered into your brain."[ee]

[a] Lynn Anderson, "Rose Garden." [b] Andy Gibb, "Shadow Dancing." [c] Tammy Wynette, "Stand by Your Man." [d] Rick Astley, "Never Gonna Give You Up." [e] Waylon Jennings and Willie Nelson, "Mammas, Don't Let Your Babies Grow Up to Be Cowboys." [f] Chuck Berry, "Johnny B. Goode." [g] Trisha Yearwood, "There Goes My Baby." [h] Savage Garden, "Truly, Madly, Deeply." [i] Tanya Tucker, "If It Don't Come Easy." [j] Roy Orbison, "Pretty Woman." [k] Jo Dee Messina, "I'm Alright." [l] The Beatles, "Let It Be." [m] Ray Price, "For the Good Times." [n] Tiffany, "Could've Been." [o] Johnny Cash, "I Walk the Line." [p] The Police, "Every Breath You Take." [q] Tim McGraw, "Just to See You Smile." [r] Led Zeppelin, "Stairway to Heaven." [s] Dolly Parton, "Coat of Many Colors." [t] Don McLean, "American Pie." [u] Glen Campbell, "I Wanna Live." [v] Simon and Garfunkel, "Bridge Over Troubled Water." [w] Jo Dee Messina, "Bye Bye." [x] Steppenwolf, "Born to be Wild." [y] Johnny Paycheck, "Take This Job and Shove It." [z] The Who, "Won't Get Fooled Again." [aa] Lee Greenwood, "God Bless the USA." [bb] Alan Jackson, "Don't Rock the Jukebox." [cc] The Doors, "Light My Fire." [dd] Conway Twitty, "Hello Darlin'." [ee] Elton John, "Candle in the Wind."

the choice (Brehm, 1956). This effect is called *spreading alternatives* and has been assumed to reflect a universal cognitive tendency.

Recent cultural psychological research with East Asian participants, however, has revealed both that spreading alternatives is not a universal psychological phenomenon and that the assumptions built into dissonance theories are not shared across cultural contexts (Heine & Lehman, 1997; Hoshino-Browne, Zanna, Spencer, & Zanna, in press; Kitayama et al., 2004). The dominant explanation for why East Asian participants do not spread alternatives,

Table 2
Percentage of Country and Rock Songs Coded in Each Category

Category	χ^2 (1, $N = 132$)	Genre (%)	
		Country	Rock
Independence			
Integrity	4.77*	33.8	17.2
Uniqueness	5.66*	17.6	35.9
Action			
Self-management	4.80*	50.0	31.3
Self-expansion	7.65**	33.8	57.8
Influence			
Resisting	2.92†	27.9	15.6
Exerting	10.78**	47.1	75.0

† $p < .10$. * $p < .05$. ** $p < .01$.

whereas BA EAs do, is that East Asian participants view choices as contextually, temporally, and relationally situated, whereas BA EAs view choices as caused by and expressive of internal, stable, and unique features. For the self to be experienced as "good" in BA EA contexts, the choices it makes must be optimal. BA EAs will therefore revise their attitudes toward chosen and rejected items to make it seem as though they clearly made the best choice. Conversely, choices made in relatively asocial settings are not thought to reveal anything inherent about the person in East Asian contexts, and thus East Asian people may be less motivated to revise their attitudes to reflect their behaviors.

Because neither East Asian nor HS EA contexts support the notion that the actualization and expression of personal attributes is central to the experience of agency, we predicted that HS EAs would not spread alternatives as much, or in the same manner, as would BA EAs. Specifically, we anticipated that HS EAs would not spread alternatives for chosen items, whereas BA EAs would. In BA contexts, actions are supposed to reveal the positively distinct attributes of agents, and therefore BA agents may likewise be prone to seeing the objects they select as positively distinct. In HS settings, conversely, the items with which agents accouter themselves are not necessarily viewed as reflections of their internal attributes, and those attributes, in turn, are not expected to be unique or ideal. Thus in HS contexts, agents were not expected to be motivated to increase the subjective value of chosen objects.

Predictions regarding HS participants' evaluations of rejected objects were less clear. On one hand, it is possible that behaviors are seen as completely unrelated to internal attributes in HS contexts, so that HS participants would show no spreading of alternatives for chosen or rejected objects. On the other hand, the model of agency in HS contexts emphasizes the moral integrity and reliability of the self. Because devaluing a rejected object may assure agents that they did not make a bad choice, HS participants may spread alternatives for rejected objects.

To examine the effects of choice on BA and HS participants' tendencies to spread alternatives, we used the methodology originally developed by Steele and colleagues (Steele, 1988; Steele, Spencer, & Lynch, 1993). Participants in these studies evaluated

10 compact discs (CDs), chose between two that they found equally attractive, and then evaluated them a second time. This methodology was chosen because CDs proved to be equally attractive and desirable stimuli in both HS and BA contexts.

Method

Participants

Forty-five EA men participated in exchange for $25 each. Two participants were removed because their responses on the main dependent variable—spread of alternatives—were more than three standard deviations beyond the mean. This left a total of 43 EA men, ages 19–50 ($M = 33.23$, $SD = 8.23$).

Participants were divided into two groups, on the basis of their highest level of completed education. In the HS group ($n = 19$) were participants whose highest levels of completed education were high school ($n = 6$), some community college ($n = 9$), community college ($n = 2$), and some college ($n = 2$). In the BA group ($n = 24$) were participants who had completed a bachelor's degree ($n = 15$) or a postbaccalaureate degree ($n = 9$). Two participants who were under the age of 25 and who had not completed a college degree were classified as HS because they indicated that they had no intention of attending college.

Participants were recruited to participate in a marketing research study on musical preferences through flyers and e-mails. HS participants were firefighters and construction and maintenance workers; BA participants were postbaccalaureate or postdoctoral employees and students. Because construction workers are paid extremely well in northern California, whereas postbaccalaureate employees and postdoctoral fellows are not, HS participants reported higher average household incomes on a 10-level self-report income scale (income in increments of $10,000) ($M = 7.84$, $SD = 2.06$) than did BA participants ($M = 5.17$, $SD = 3.08$), $t(40) = 3.22$, $p < .01$. These scale means translated into an average income of $60,000–$70,000 for HS participants and $40,000–$50,000 for BA participants.

On the measure of perceived social class, however, HS participants tended to classify themselves in lower strata than did BA participants, $\chi^2(2, N = 40) = 9.78$, $p < .01$. Whereas 42.1% of HS participants classified themselves as working or lower middle class, only 14.3% of BA participants circled one of these categories. Conversely, 47.6% of BA participants indicated that they were upper middle or upper class, whereas only 5.3% of HS participants classified themselves in these categories. Finally, 52.6% of HS participants and 38.1% of BA participants considered themselves middle class.

Procedure and Materials

Participants came to the lab individually and were greeted by a female experimenter. Upon their arrival, participants learned that they would get a free CD in addition to the advertised payment of $25. Participants were told that the free CD was not advertised because of a campus-wide limit on the payment amount that may be advertised (but not given) for participation in behavioral research.

Participants were first presented with a list of 30 recently released CDs, which included country, contemporary rock, and rereleased classic rock selections. Extensive pretesting and consultation of popular music charts guided the construction of the list, so that the CDs would appeal to a wide variety of tastes. Participants were asked to cross off the list any CDs that they already owned, then to circle the titles of 10 CDs that they would like to own.

Time 1 rankings. On the basis of this list, the experimenter then placed information sheets about each of the 10 desired CDs into a binder. On each sheet were the CD's cover art, the artist's name, the CD's title, and the play list. Participants were given this binder and then wrote down the artist and title for each CD in the order that they appeared in the binder.

Participants then ranked each CD according to how much they thought they would like it, on the basis of whatever criteria they used for judging CDs. Participants were also informed that their rankings of the CDs would be used to determine which CD they would get to keep.

The choice. The experimenter then took the participants' rankings and disappeared behind a filing cabinet. Moments later, the experimenter reappeared, bearing the participants' fifth and sixth ranked CDs, and explained, "At this stage in the study, we have run out of some CDs. So, why don't you just choose between these two CDs?"

Time 2 rankings. After participants chose their CD, they spent 8 min completing a bogus marketing research survey, to bolster the study's cover story and to give them sufficient time to justify their choice (Walster & Festinger, 1962). Participants then received a questionnaire on which the artists and titles of the CDs had already been written. They were told that researchers were interested in how participants would rank the CDs without the binder of visual information in front of them, and they were asked to rerank the CDs according to how they were feeling right at that very moment. They were assured that this was not a memory task and that they should not try to reproduce their first rankings of the CDs.

Finally, participants completed a demographic questionnaire assessing their age, ethnicity, educational attainment level, annual household income, household size, and perceived social class. Participants were then probed for suspicion about the true purposes of the study. None guessed the study's intent or hypotheses.

Results

Chosen CDs

As predicted, BA participants spread alternatives on the chosen CD rankings, but HS participants did not. Figure 2 presents the average rank change of chosen CDs for HS and BA participants. A 2 (educational attainment) $\times$ 2 (time of evaluation: before or after choice) analysis of variance (ANOVA), with repeated measures on time, showed that the Education $\times$ Time interaction was significant, $F(1, 41) = 4.55, p < .05$. Simple effects analyses established that BA participants increased their rankings of their chosen CD, $t(23) = 2.61, p < .05$, but HS participants did not, $t(18) = 0.66, ns$.[5]
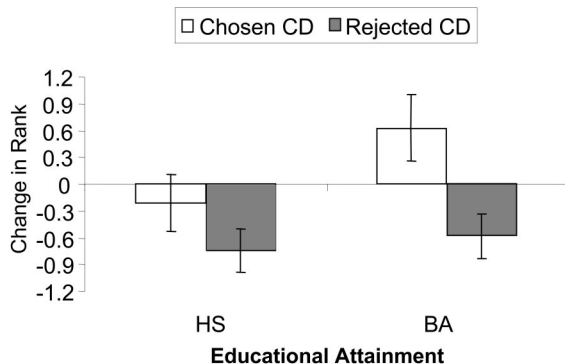

Figure 2. Mean rank changes of chosen and rejected compact discs by level of educational attainment. Error bars represent standard error of the mean. Positive numbers indicate an increase in positive evaluation; negative numbers indicate a decrease in positive evaluation. HS = high school–educated European Americans; BA = college-educated European Americans.

Rejected CDs

Figure 2 also illustrates that both HS and BA participants tended to decrease their evaluations of rejected CDs after the choice. Accordingly, the main effect of time in the 2 (educational attainment) $\times$ 2 (time) repeated measures ANOVA was significant, $F(1, 41) = 9.30, p < .01$. However, the Education $\times$ Time interaction was not significant, indicating that both HS and BA participants equally devalued rejected CDs.[6, 7]

Discussion

As predicted, HS participants did not improve their rankings of a chosen CD as a result of having chosen it, whereas BA participants did show this classic dissonance effect. These findings support the broader hypothesis that the models of agency that are more prevalent in HS and BA contexts afford different roles to choice. In HS contexts, where action is centered on controlling a reliable self, making choices may be less relevant to the exercise of agency. Thus, having made a choice, HS participants may not be motivated to alter their preferences for a chosen object.

In BA contexts, on the other hand, choice is a primary medium through which agency is lived. Action in these contexts is centered on actualizing and expressing a self made of unique attributes, including attitudes and preferences. Moreover, the door between actions and attributes is double-hung: Having acted, agents may alter their attributes to correspond with their actions. Thus in the standard free-choice dissonance paradigm, BA participants may be motivated to alter their attitudes toward a chosen CD and to view it more positively.

For the rejected CDs, in contrast, both HS and BA participants lowered their rankings. One explanation for this finding is that people in both contexts are motivated to assure themselves that they did not make a bad choice—assurance that may be had by demoting the rejected CD. However, there are no data in this study bearing on this interpretation.

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[5] An analysis using a three-level measure of educational attainment that reflected the full range of the sample's highest received degrees (HS, BA, or $\geq$ MA) showed similar results. For this analysis, the AA group ($n = 2$) was combined with the HS group, because of the former's small cell size. Mean changes in chosen CD rank for each group were the following: HS, $M = -0.21, SD = 1.40$; BA, $M = 0.80, SD = 0.86$; $\geq$ MA, $M = 0.33$, $SD = 1.58$. The Educational Attainment $\times$ Time interaction, however, reached only trend-level significance, $F(2, 40) = 2.63, p = .08$.

[6] An analysis using the three-level measure of educational attainment once again yielded results like those obtained with the two-level education measure. A significant main effect of time, $F(1, 40) = 7.30, p = .01$, and nonsignificant Educational Attainment $\times$ Time interaction, $F(2, 40) = 0.13, ns$, showed that all education groups reduced their evaluations of the rejected CD ($M = -0.65, SD = 1.40$).

[7] Parallel analyses using income (adjusted for household size) as the SES indicator showed no correlation between income and spreading alternatives for either the chosen CD ($r = .10, ns$) or the rejected CD ($r = -.14, ns$). Moreover, the 2 (income: below or above median) $\times$ 2 (time) ANOVA on chosen CD rank did not reveal a significant interaction effect, $F(1, 40) = 0.47, ns$. These null findings most likely reflect that fact that HS participants in this sample had higher household incomes than did BA participants.

Study 3

The results of Studies 1b and 2 suggest that "getting what you want" may be more central to the experience of agency in BA contexts than in HS contexts. In HS contexts, on the other hand, where "getting what you need" may be the order of the day, the elaboration and realization of individual preferences may not be as central to the experience of agency. Owing to their different circumstances and models of agency, we predicted that HS participants would view getting what they wanted and getting what they needed as equally desirable, whereas BA agents would view getting what they wanted as preferable to merely getting what they needed.

In Study 3, all participants got what they needed: a gift pen with which to complete a questionnaire. Only half of the participants, however, got what they wanted: the gift pen that they chose for themselves. The other participants had their choice usurped by the experimenter and then had their chosen pen replaced with an unchosen one. We predicted that BA participants would evaluate unchosen pens less positively than chosen pens in this classic reactance paradigm, whereas HS participants would evaluate their gift pens equally, regardless of whether they chose them for themselves.

Predictions for the BA participants follow from reactance theory. Reactance theory holds that a threat to or loss of a freedom, such as the freedom to choose a pen, motivates individuals to restore that freedom (Brehm, 1966; Brehm & Brehm, 1981; Wicklund, 1974). Because restoring the freedom outright is often not an option—most participants will not attempt to snatch their chosen pen back from the experimenter—people often reassert their freedom by increasing their liking of chosen, but forbidden, objects.

Although increased liking of preferred, but forbidden, objects is the prototypical reactance effect, researchers in this paradigm have also frequently reported the devaluation of unchosen, permitted objects. For example, Hammock and Brehm (1966) led half of their participants to believe that they would choose a gift, whereas the other half were not given the expectation of choice. In the end, all participants received a gift of the experimenter's choosing. Participants who had thought they would have a choice evaluated their gift less positively than did participants who did not expect to choose. Similarly, Brehm, Stires, Sensenig, and Shaban (1966) found that participants who initially chose a gift record but, in the end, received a record of the experimenter's choosing subsequently evaluated the chosen, but denied, record more positively, and the record that they received, but did not choose, less positively.

According to reactance theory, these changed evaluations of denied and conferred objects reflect participants' attempts to reassert their freedom. Built into this theory is an understanding of freedom as acting according to one's unique preferences. Study 1 suggests, however, that the HS understanding of being a "free" agent is being free from challenges to personal integrity, rather than being free to actualize and express uniqueness. Because the HS model of agency does not match the model of agency implied by reactance theory, the predictions of reactance theory were not expected to obtain in HS contexts, and HS participants were not expected to devalue unchosen gift pens.

Method

Participants

A total of 120 EA participants (61 women, 59 men) ages 20–65 ($M = 38.89$, $SD = 11.14$) completed the study in exchange for \$2 and a new black ink pen (mean value = \$1.12). Participants were divided into two groups on the basis of their highest level of completed education. In the first group were those who had completed less than a college education (HS; $n = 78$), including those who had completed some high school ($n = 5$), a high school diploma ($n = 27$), some community college or junior college ($n = 16$), a community college or junior college degree ($n = 16$), or some college (4-year institution; $n = 14$). In the second group were participants who had completed a college education (BA; $n = 42$), including those with a bachelor's degree ($n = 24$) or postcollege training or degree (e.g., MA, PhD, JD, MD, etc.; $n = 18$).

BA participants reported higher incomes than did HS participants (BA: $M = 7.08$, $SD = 2.79$; HS: $M = 5.69$, $SD = 2.58$) on a 10-level self-report income scale (income in increments of \$10,000), $t(114) = 2.60$, $p < .05$. These results translated into a mean annual household income of \$60,000–\$70,000 for BA participants and \$40,000–\$50,000 for HS participants. BA participants also had higher perceived social class than did HS participants, $\chi^2(2, N = 117) = 7.90$, $p < .05$. Although equal percentages of BA participants (48.8%) and HS participants (48.7%) categorized themselves as middle class, more BA participants (43.9%) than HS participants (25.0%) categorized themselves as upper middle and upper class. Correspondingly, more HS participants (26.3%) perceived themselves to be working or lower middle class than did BA participants (5.1%).

Between the two experimental conditions, there were 67 participants in the free-choice condition (HS, $n = 45$; BA, $n = 22$) and 53 participants in the usurped choice condition (HS, $n = 33$; BA, $n = 20$). The distributions of gender and age were not significantly different across levels of condition and education.

Design

The three independent variables in this study were educational attainment (HS or BA), pen receipt condition (free choice or usurped choice), and gender (female or male). Participants were randomly assigned to condition and indicated their highest level of completed education and gender on a demographic questionnaire. The primary dependent measures were participants' pen evaluations, Singelis's (1994) independent self-construal scale, and Lachman and Weaver's (1998) perceived mastery and constraint scales.

Procedure and Materials

Two EA male experimenters individually conducted this study outside of discount shopping centers and airports in northern California and eastern Massachusetts. Participants were invited to take part in an alleged school research project on writing instruments, in exchange for \$2 and a new black ink pen. Participants were run individually, and the experimenters ensured that participants did not witness any other participants' sessions. The experimenter first introduced the pens by make and model. Pens (and prices) included the Pentel R.S.V.P (\$0.89), the Uniball Vision (\$1.33), the Sanford Suregrip (\$1.05), the Pilot Roller Ball V-7 (\$1.33), and the Pilot G-2 (\$0.99). Pen prices were not related to any dependent or independent variables.

Choice manipulation. Participants in the *free-choice condition* then chose a pen for themselves. After testing their pen on the first page of the questionnaire, participants completed the pen evaluation measure (described below).

Participants in the *usurped choice condition* also initially chose and tested a pen for themselves. Before they could begin evaluating their pen, however, participants in this condition were interrupted by the experi-

menter, who took away their chosen pen and explained, "I'm sorry. You can't have that pen. It's the last one of its kind that I have. Here—take this one." Participants then received a replacement pen of a different make and model from their chosen one. Participants tried out the unchosen pen on the first page of the questionnaire and then proceeded to evaluate it on the pen evaluation measure. In most cases, usurped choice participants received the same pen that the previous free-choice participant had chosen, so that pens were yoked across conditions. When a usurped choice participant chose the same pen as the previous free-choice participant, however, the experimenter randomly chose the replacement pen.

Pen evaluation measure. Participants in both conditions then responded to the following four items, using 7-point Likert-type scales (1 = *dislike a lot/very badly,* 7 = *like a lot/very well*): "Overall, how much do you like the pen?"; "How much do you like the design of the pen?"; "How much do you like the pen's ink?"; and "How well does the pen write?"

Independent self-construal scale. After completing the pen evaluation items, participants in both conditions indicated their agreement or disagreement with the 12 items from Singelis's (1994) self-construal scale that pertain to the independent self-construal,[8] using 7-point Likert-type scales (1 = *strongly disagree,* 7 = *strongly agree*). Responses of 4 (*don't know*) were recoded as missing values. The estimated internal consistency of this scale was good ($\alpha = .78$).

Perceived mastery and constraint scales. Interspersed with the independent self-construal items were items from Lachman and Weaver's (1998) perceived mastery and constraint scales. Participants used 7-point Likert-type scales to indicate their agreement with the following perceived mastery items: "I can do just about anything I really set my mind to," "When I really want to do something, I usually find a way to succeed at it," and "What happens to me in the future mostly depends on me" ($\alpha = .62$). Perceived constraint was assessed with "I have little control over the things that happen to me," "I often feel helpless in dealing with the problems of my life," "Other people determine most of what I can and cannot do," and "I sometimes feel I am being pushed around in my life" ($\alpha = .76$). Responses of 4 (*don't know*) were recoded as missing values.

Participants concluded the experimental session by completing the same demographic questionnaire used in Study 2. The experimental session lasted an average of 5 min, at the end of which participants were paid, thanked, and debriefed.

Results

Overview of Analyses

All measures were subjected to a 2 (educational attainment: HS or BA) × 2 (condition: free choice or usurped choice) × 2 (gender: female or male) ANOVA. Because there were no effects involving gender, it was not included in the analyses reported below.

Pen Evaluation

Because the pen evaluation items were intercorrelated (range of rs: .40–.73; all ps < .001), the average of all four items was calculated for each subject to form a pen evaluation index ($\alpha = .85$). The predicted Educational Attainment × Condition interaction proved significant on this measure, $F(1, 116) = 4.48, p < .05$. Figure 3 illustrates this interaction, showing that BA participants in the usurped choice condition evaluated their pens significantly less favorably than did BA participants in the free-choice condition. HS participants, on the other hand, evaluated their pens equally favorably, regardless of condition. Post hoc tests (Tukey's honestly significant difference) confirmed that BA participants in the usurped choice condition evaluated their pens significantly less positively than did participants in the other three groups.[9,10]
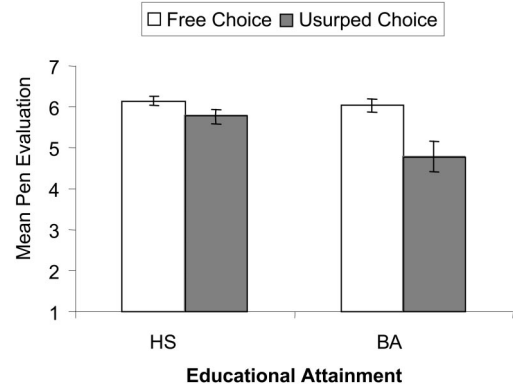

Figure 3. Mean pen evaluations by level of educational attainment and condition. Error bars represent standard error of the mean. HS = high school–educated European Americans; BA = college-educated European Americans.

Independent Self-Construal

Responses to the 12 independent self-construal items were first averaged for each participant. On this scale, the 2 × 2 ANOVA showed no significant effects. Because the Singelis scale was designed to differentiate between European Americans and Japanese, and not between people with different SES, we followed up this null finding with a series of item analyses, using the same 2 × 2 ANOVA design. These item analyses revealed significant effects of educational attainment on two items: "Having a lively imagination is important to me," $F(1, 112) = 6.30, p < .05$, and "I act the same no matter who I am with," $F(1, 106) = 8.85, p < .01$. BA participants endorsed the "imagination" item significantly more than did HS participants (BA, $M = 6.44, SD = 0.71$; HS, $M =$

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[8] Two items from Singelis's scale were modified to refer to work instead of to school. These items were "Speaking up in class is not a problem for me," which was changed to "Speaking up at work is not a problem for me," and "I am the same person at home that I am at school," which was changed to "I am the same person at home that I am at work."

[9] A 4 (educational attainment: HS, AA, BA, or ≥ MA) × 2 (condition) ANOVA, whose educational attainment variable more completely represented the samples' range, showed similar results. The interaction effect, however, reached only trend-level significance, $F(3, 112) = 2.32, p = .08$. For this analysis, < HS participants ($n = 5$) were combined with HS participants because of the < HS group's small cell size. In the reactance condition, BA and ≥ MA participants liked their pens the least (BA: $M = 4.66, SD = 1.76$; ≥ MA: $M = 5.04, SD = 1.43$), compared with HS and AA participants (HS: $M = 5.70, SD = 1.10$; AA: $M = 6.33, SD = 0.68$). Evaluations of pens in the free-choice condition were more uniformly positive (HS: $M = 6.23, SD = 0.76$; AA: $M = 5.92, SD = 0.63$; BA: $M = 6.23, SD = 0.79$; ≥ MA: $M = 5.85, SD = 0.75$).

[10] A 2 (income) × 2 (time) ANOVA substituting income for educational attainment showed a similar pattern of results, although the interaction did not reach statistical significance, $F(1, 112) = 2.03, p = .16$. Higher income (i.e., above the median) participants in the usurped pen condition liked their pen least ($M = 4.98, SD = 1.54$), whereas participants in the other three conditions liked their pen more (higher income free-choice participants: $M = 6.03, SD = 0.76$; lower income usurped choice participants: $M = 5.66, SD = 1.18$; lower income free-choice participants: $M = 6.13, SD = 0.87$).

5.89, $SD = 1.54$), whereas HS participants endorsed the "act the same" item significantly more than did BA participants (HS, $M = 5.67$, $SD = 1.68$; BA, $M = 4.60$, $SD = 2.06$). These mean differences on items provide additional evidence for a greater emphasis on uniqueness and self-expression among BA participants, and for a greater emphasis on integrity among HS participants.[11,12]

Perceived Mastery and Constraint

There were no main or interaction effects involving educational attainment, condition, or gender on the perceived mastery and constraint measures, or on their individual items.

Discussion

As predicted, HS participants' pen evaluations did not differ across choice conditions. BA participants, on the other hand, evaluated chosen pens more positively than they evaluated unchosen pens. In the parlance of reactance theory, BA participants reasserted their freedom when it was threatened, but HS participants did not.

Why didn't HS participants reassert their freedom? The independent self-construal scale item differences suggest that HS and BA participants have different ideas about what it means to be free (insofar as freedom and independence are closely related concepts). Whereas HS participants endorsed the "act the same" item more than did BA participants, BA participants endorsed the "imagination" item more than did the HS participants. These findings dovetail with the results of Study 1, which showed that the idea of independence most prevalent in country music was that of maintaining integrity, whereas the idea of independence most prevalent in rock music was that of being unique. Among HS participants in this study, the experimenter's usurpation of choice was perhaps perceived as social influence, and HS participants therefore did not allow it to influence their evaluations. Among BA participants, however, the experimenter's usurpation of choice perhaps interfered with their realization of uniqueness. Thus, the usurpation of choice may have had negative consequences for BA participants' liking of the pen.

Studies 1 and 3 show that there is a correspondence between the models of agency represented at the public level, the ideas of independence endorsed at the private level, and the reactions of participants to the usurpation of choice in HS and BA cultural contexts. However, the independence items failed to mediate the relationships between educational attainment, choice, and pen evaluations. Perceived mastery and constraint likewise failed to mediate these effects.

A final finding of Study 3 was that HS and BA participants did not differ in levels of perceived mastery or constraint. This finding was surprising, considering the existing literature documenting SES differences in perceived control (e.g., Gurin et al., 1978; Lachman & Weaver, 1998; Mirowsky & Ross, 1986). Although it is difficult to explain this null effect, it suggests that the relationships between educational attainment, choice, and object evaluation cannot be explained solely in terms of perceived environmental control.

General Discussion

Three questions motivated this research: (a) Do lower and higher SES contexts and individuals, as indicated by less (HS) and more (BA) educational attainment, support and reflect different models of agency? (b) Does choosing differently affect HS and BA participants' evaluations of objects? and (c) Does not getting to choose differently affect HS and BA participants' evaluations of objects? To answer these questions, we assumed a broad definition of agency as the self in action, to allow for the possibility that selves, means of acting, and valued ends of action differ across levels of educational attainment. Although our broad definition of agency shares features with many other conceptualizations of agency currently in the literature, it departs from narrower conceptualizations that equate agency with exerting environmental control.

Study 1 demonstrated educational attainment differences in models of agency at the level of mass-media artifacts (i.e., music lyrics), whereas Study 3 provided preliminary evidence of educational attainment differences in models of agency at the level of individual values. Specifically, the HS model of agency emphasizes controlling a self for whom independence is defined as having integrity (e.g., being honest, reliable, loyal, and consistent across situations), whereas the BA model of agency emphasizes expressing and expanding the influence of a self whose independence is defined as being unique.

Given these different models of agency, we predicted that the provision and usurpation of choice would have different effects for HS and BA participants' evaluations of objects. Choice simultaneously allows the chooser to express individual preferences and to exert control—two behaviors that we hypothesized to be central to the experience of BA agency but not to the experience of HS agency. Accordingly, Study 2 used the standard free-choice dissonance paradigm and established that choosing resulted in improved evaluations of a gift CD for BA participants but not for HS participants. Study 3 then used the reactance paradigm to show that BA participants in a no-choice condition liked their pens less than did BA participants in a free-choice condition, whereas HS participants in the free-choice and no-choice conditions did not differ in their evaluations.

We do not interpret these observed differences between HS and BA artifacts and participants as evidence of nonoverlapping, mu-

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[11] Analyses using the four-level educational attainment variable showed similar patterns of means but did not reach conventional levels of significance. For the "imagination" item, $F(3, 112) = 2.04$, $p = .11$, BA participants had the highest mean endorsement ($M = 6.46$, $SD = 0.72$), followed by $\geq$ MA participants ($M = 6.41$, $SD = 0.71$) and AA participants ($M = 6.27$, $SD = 1.53$). HS participants endorsed this item the least ($M = 5.80$, $SD = 1.54$). For the "act the same" item, $F(3, 102) = 2.70$, $p = .05$, HS participants had the highest mean endorsement ($M = 5.75$, $SD = 1.62$), followed by AA participants ($M = 5.33$, $SD = 1.91$) and $\geq$ MA participants ($M = 4.92$, $SD = 1.71$). BA participants endorsed this item the least ($M = 4.41$, $SD = 2.26$).

[12] Using a two-level income measure as the SES indicator in these item analyses yields no significant or trend-level results.

tually exclusive cultures. All participants are EAs and therefore engage with mainstream EA frameworks of meanings, values, and practices, including democracy, the Protestant work ethic, and the American dream (Plaut, Markus, & Lachman, 2002). The two cultural models of agency documented here are instead thought to overlap, with the group differences representing relative differences of emphasis. As a result, HS and BA EAs can and often do engage both models, with the group differences reflecting different frequencies of individual engagement.

Moreover, we do not interpret these differences to mean that HS individuals do not like choices and therefore should not be given them. Rather, these results suggest that HS individuals may have a more balanced view of choice and, similarly, a more flexible emotional response to not getting what they want.

Limitations

Although the studies reported here shed some light on the models of agency practiced and valued in HS and BA EA contexts, they largely show what HS participants do *not* do in studies that were designed by BA researchers for BA participants. Future studies should therefore examine those behaviors that are central to being an agent in HS contexts, such as demonstrating reliability, controlling emotions, and being psychologically tough. Future studies should also explore the effects of choice in situations that may be more relevant to HS participants, such as making choices regarding personal integrity and self-control.

Currently, identifying the cognitive mediators that lie between environments and actions is the gold standard of psychological studies (Baron & Kenny, 1986). The studies presented here failed to demonstrate mediation, perhaps because the potential mediators that we assessed were more relevant to the BA model of agency or were not designed to distinguish between EAs of different SES levels. Measures that more accurately reflect HS and BA models of agency might prove to be the true mediators, and thus future studies should endeavor to develop these measures. Existing psychological constructs that might be incorporated into such measures include secondary control, emotion-focused coping, coping self-efficacy, and accommodative processes. Future studies might also assess the contribution of other individual-differences variables that are related to educational attainment and SES, such as openness to experience.

Alternatively, cultural models theory suggests that such explicit, conscious, verbally mediated measures may not always be the most appropriate assays in studies of cultural influence. The meanings of things in the world are collectively constructed and intergenerationally transmitted, so that any given individual is born into a world where such basic questions as when life begins, how behavior is caused, what is good, and who the self is have already been answered. As a result, these ideas and practices do not seem like culturally constructed achievements but instead seem like naturally given inevitabilities (Douglas, 1986). Methodologies that use implicit or nonconscious priming manipulations and measures (e.g., the Implicit Association Test, Greenwald & Banaji, 1995; nonconscious priming, Bargh, Chen, & Burrows, 1996) might be more appropriate for assessing these implicit and nonconscious cultural models and their effects.

It is important to note, though, that these techniques would still not address the extremely important question of how these implicit associations and attitudes get into the mind in the first place. Implicit associations and attitudes are derived in part from public representations and are supported and reflected in public practices and artifacts. In other words, human actions are not just cognitively mediated but are also culturally mediated. A complete view of cognitive mediation may therefore require a complete view of the cultural models with which agents are in transaction. Analyses of cultural artifacts (e.g., TV shows, advertisements, bumper stickers, rumors, novels) should therefore also be pursued, as they provide concrete representations of the practices, meanings, and values of social groups.

A final limitation of these studies is that they do not directly test the direction of causation between models of agency and SES. Although we have focused mostly on how SES shapes models of agency, it is also possible that the models of agency most frequently or strongly enacted by individuals influence their SES. Indeed, a cultural models approach would specify that both directions of causation are at work, as the relationships between cultures and psyches are necessarily recursive and iterative. Although studies on the SES–health relationship suggest that the SES-to-health causal sequence is stronger than the health-to-SES causal sequence (Adler et al., 1994), longitudinal studies and natural experiments (e.g., studies of lottery winners) will be necessary to determine whether the same pattern holds true for SES–agency interrelations.

Conclusion

Psychological theories of agency, control, coping, and motivation sometimes assume that acting on one's environment according to one's preferences is preferable to acting on one's self in order to adjust to one's environment. These theories do not account for the fact that HS and BA material worlds differ in their objective controllability and in their means–ends contingencies. They also do not allow for the possibility that HS and BA symbolic worlds differ in their portrayals of the independent self, in their evaluations of different behavioral ends, and in their emphases on different behavioral means. As a result, HS ways of being that may be uniquely suited to HS contexts have sometimes been cast as atypical and potentially maladaptive, whereas BA ways of being that could be ill-suited to HS contexts may be unwisely endorsed.

Increasingly, however, researchers are emphasizing the importance of person–environment fit in producing good outcomes (e.g., Evans, Shapiro, & Lewis, 1993). In the Western psychological literature on coping and control across the life span, for example, results suggest that as objective control decreases with age, elaborating more self-oriented modes of control (as opposed to environment-oriented modes) in older age is adaptive for Western populations (Brandtstädter & Renner, 1990; Heckhausen & Schulz, 1995; Rodin & Timko, 1992). Similarly, experimental studies demonstrate that desiring control in objectively uncontrollable situations exacerbates the physiologically damaging effects of such situations (Sieber et al., 1992). These findings accord with the generally accepted assumption that human beings are exquisitely attuned to their contexts. To the extent that HS and BA contexts vary, HS and BA individuals are likely to develop distinct, contextually appropriate ways of being agents.

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