Conflict in Married Couples:

Personality Predictors of Anger and Upset

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ABSTRACT   This research had two central goals: to examine the role of personality in (a) *performing* actions that anger spouses, and (b) *eliciting* anger-provoking actions from spouses. Personality data on a sample of married persons ($N = 214$) were obtained from three sources—self-report, spouse-observer report, and independent interviewers' reports. In a separate session, subjects recorded which of 147 upsetting actions their spouses had performed in the past year. A series of hierarchical multiple regressions revealed the effects of Surgency, Agreeableness, Conscientiousness, Emotional Stability, and Intellect on evoking upset in spouses through condescension (e.g., treating spouse as stupid or inferior), possessiveness (demanding too much time and attention), abuse (slapping spouse), unfaithfulness (having sex with others), inconsiderateness (leaving toilet seat up), moodiness (crying a lot), alcohol abuse (drinking too much alcohol), emotional constriction (hiding emotions to act tough), and self-centeredness (acting selfishly). Discussion of this research focuses on the implications of personality for conflict in marital relationships.

Despite romantic ideals, conflict in close heterosexual relationships is pervasive (Buss, 1989; Muehlenhard & Linton, 1987). Men and women perform actions that upset and anger their dates and mates, and conflict ensues. These upsetting actions vary widely, ranging from physical abuse, condescension, and verbal insults to sexual infidelity, sexual ag-

gressiveness, sexual withholding, and drunkenness. Some theories that attempt to account for the "battle of the sexes" predict that conflict will be inevitable under many conditions because the reproductive interests of men and women rarely coincide (Alexander, 1987; Buss, 1989; Dawkins, 1976).

Conflict, however, may be pervasive in some relationships but minor in others. Both longitudinal and cross-sectional studies over the past 50 years have found personality characteristics to be predictors of differences in marital incompatibility and marital stability (e.g., Barry, 1970; Bentler & Newcomb, 1978; Burgess & Wallin, 1953; Doherty & Jacobson, 1982; Kelly & Conley, 1987; Terman & Buttenweiser, 1935; Terman & Oden, 1947; Zalenski & Galkowitz, 1978).

Neuroticism or emotional instability has been the most consistent personality predictor of marital instability, emerging as a significant factor in nearly every study that has included a measure of it. Low impulse control, particularly as exhibited by husbands, also emerges in several studies as a predictor of marital instability and dissatisfaction (e.g., Bentler & Newcomb, 1978; Kelly & Conley, 1987). Finally, low agreeableness predicts marital instability and dissatisfaction, although this result is less consistent and less powerful than that found for neuroticism and low impulse control (Burgess & Wallin, 1953; Kelly & Conley, 1987).

These results point to an important role for personality in predicting the quality and ultimate fate of mating relationships. Unanswered by these previous studies, however, is precisely what *specific* sources of conflict occur in marriages in which the husbands and wifes are emotionally unstable, impulsive, or disagreeable. Do emotionally unstable men, for example, create conflict through possessiveness, jealousy, and moodiness? Do impulsive wives create conflict through sexual infidelities and unreliable or erratic behavior? Do disagreeable men create conflict by hitting, slapping, or spitting on their wives? Do dominant mates upset their spouses by bossy, condescending actions, and do submissive mates irritate their partners with cloying passivity? The purpose of this article is to explore the role of personality in predicting specific sources of conflict between married men and women.

Considerable evidence has accrued over the past few decades to suggest that at least five major personality dimensions are needed to capture the major ways in which individuals differ (Digman & Inouye, 1986; Goldberg, 1981, 1982; Hogan, 1983; John, 1989; McCrae & Costa, 1982, 1985, 1987; Norman, 1963). These bipolar factors have been

˙ variously labeled, but are widely known as Surgency (dominance, extra-version vs. submissiveness, introversion), Agreeableness (warm, trusting vs. cold, suspicious), Conscientiousness (reliable, well-organized vs. undependable, disorganized), Emotional Stability (secure, even-tempered vs. nervous, temperamental), and Intellect or Openness (perceptive, curious vs. imperceptive, uncurious). Much current research in personality psychology is focused on identifying the consequences of these five major personality factors for functioning in the everyday lives of persons (e.g., Buss, in press; Caspi, 1987; Caspi, Bem, & Elder, 1989; McCrae & Costa, 1987; Wiggins & Pincus, 1989).

In earlier work (1987) I proposed an interactional framework within which these moderately stable personality characteristics could be studied, based in part on earlier behavioral genetic formulations by Plomin, DeFries, and Loehlin (1977) and Scarr and McCartney (1983). This framework consists of three mechanisms by which features of persons interact with features of the environment: selection, evocation, and manipulation. Selection involves nonrandom entry into, or avoidance of, certain environments. Evocation is defined by the ways in which persons unintentionally elicit responses from others occupying their environments. Manipulation deals with the tactics intentionally deployed to alter or influence others in environments that have been selected.

Some empirical work has been conducted on selection (e.g., Buss, 1984, 1987; Emmons & Diener, 1986; Snyder, 1984), on manipulation (e.g., Buss, Gomes, Higgins, & Lauterbach, 1987; Miller, Berg, & Archer, 1983; Thorne, 1987), and on the ways in which each major personality factor evokes responses from others (Bell, 1968; Buss, 1981; Cattell, 1973; Snyder, 1984; Swann, 1987). The research described in this article was designed to add to this literature by examining the role of personality in evoking specific forms of conflict in close relationships.

There are at least two major ways in which personality could play a causal role in evoking conflict in close relationships. First, a person could perform actions that upset their partner. A dominant person, for example, might act condescending and habitually upset close others. A husband low on Conscientiousness might neglect personal grooming or have extramarital affairs, both of which could upset his wife.

A second form of evocation occurs when a person elicits actions from another that in turn upset the elicitor. An aggressive man might elicit the "silent treatment" from his mate, which in turn upsets him. A condescending wife might contribute to low self-esteem in the husband, which then would make her angry. In sum, people's personality char-

acteristics can upset others directly by influencing how they act toward ˙ others, or indirectly by eliciting actions from others that are upsetting.

To examine these effects, it is necessary to design a study that assesses the personality characteristics of both interactants. Furthermore, because of the limitations of any single data source, it is desirable to assess personality through several different data sources. Finally, although husbands and wives probably provide the best source of information about conflict within their marriage, it is desirable to obtain independent *external* assessments of the degree to which conflict pervades the relationship. Greater confidence can be placed in results that transcend single data sources.

The present study was designed to examine the predictive role of each of the five major dimensions of personality (Surgency, Agreeableness, Conscientiousness, Emotional Stability, and Intellect) on the evocation of anger and distress in a sample of married couples. The personality characteristics of both husbands and wives were assessed through three data sources to circumvent the limitations inherent in single data-source assessment—self-report, spouse-observer report, and independent reports by two interviewers.

To obtain a broad-gauge assessment of sources of anger and upset in close relationships, an instrument was developed based on the acts that males and females perform that anger and upset one another in close relationships (Buss, 1989). This instrument assesses 15 major sources of anger and upset: condescending, possessive-dependent, neglecting-rejecting, abusive (physically and verbally), unfaithful, inconsiderate, physically self-absorbed, moody, sexually withholding, sexualizing of others, abusive of alcohol-emotionally constricted, disheveled, insulting of appearance, sexually aggressive, and self-centered. In addition, two interviewers independently assessed the degree to which the conflict pervaded each couple's relationship and gauged the probability that the marriage would terminate.

In sum, this study had two central goals: (*a*) to provide a systematic examination of the role of each of five major dimensions of personality in predicting specific actions that evoke upset, anger, and conflict; and (*b*) to identify the ways in which each of these major personality dimensions elicits actions from partners that in turn create upset in the elicitor.

METHOD

Subjects

Subjects were 214 individuals, 107 males and 107 females, who had been married less than 1 year. Subjects were obtained from the public records of marriage licenses issued within a large county. All couples who had been married within the designated time period were contacted by letter and invited to participate in this study. The mean age of the male sample was 26.68 ($SD = 3.71$); the mean age of the female sample was 25.54 ($SD = 4.05$). Further details about this sample may be found in a previous study (Buss, 1989).

Procedure

Subjects participated in three separate episodes of assessment. First, they received through the mail a battery of instruments to be completed at home in their spare time. This battery contained the self-report personality instrument. Second, subjects came to a laboratory testing session approximately a week after receiving the first battery. During this testing session, spouses were separated to preserve independence and prevent contamination due to discussion. During this session, subjects reported on their partner's personality characteristics and completed the "sources of anger and upset" instrument. Third, couples were interviewed toward the end of the testing session to provide information about the relationship and to give the interviewers an opportunity to observe subjects so that they could provide personality descriptions. Total confidentiality of all responses was assured. Not even the subject's spouse could obtain responses without written permission from the relevant partner.

Personality characteristics

Self-reports. Subjects completed a 40-item personality instrument during the self-report phase of the study. This instrument consisted of 40 bipolar adjective scales, 8 each for the following major personality dimensions (sample items in parentheses): Surgency (dominant-submissive, bold-timid), Agreeableness (selfless-selfish, warm-cold), Conscientiousness (reliable-undependable, hard-working-lazy), Emotional Stability (secure-insecure, even-tempered–temperamental), and Intellect-Openness (intelligent-stupid, curious-uncurious). The instructions were: "Please read the following list of characteristics and circle the number that *best describes you* generally." Each bipolar scale was rated on a 7-point scale, with high and low anchors positioned at opposite ends of the scale. Over the midpoint (4) of each scale was positioned the term "neither." The five personality dimensions were scored by summing the 8 relevant rating

scales for each dimension. This instrument is based on factor analyses reported by Goldberg (1983).

Spouse-observer report. A parallel version of the Goldberg (1983) instrument was administered in a separate testing session to the spouses of each subject. The instructions were: "Please read the following list of characteristics and circle the number which best describes *your partner* generally." The five personality dimensions were scored by summing the relevant 8 bipolar rating scales.

Interviewer-based reports. Each couple was interviewed by a pair of trained interviewers drawn from a 10-member team. One interviewer was male and the other female. Each interview lasted approximately 40 minutes, during which each couple was asked a standard set of questions, including: How did you meet? What are the similarities and differences between you? What are the sources of conflict in your marriage? Were your parents for or against the marriage? How do you make joint decisions? In addition to these standard questions, interviewers were trained to probe further into issues raised during the course of the interview.

   Directly following each interview, the two interviewers independently rated each subject on an observer-based version of the Goldberg (1983) instrument. Subsequently, the interviewer ratings were standardized and summed with unit weighting to form five scores for each subject for Surgency, Agreeableness, Conscientiousness, Emotional Stability, and Intellect. Thus, personality characteristics were assessed through three separate data sources—self-report, partner-report, and interviewer-report.

Reports of sources of anger and upset

During the laboratory testing session when the husband and wife were physically separated, they completed an instrument entitled "Sources of Irritation or Upset." This instrument contained the following instructional set: "Below is a list of things that spouses sometimes do that irritate, annoy, anger, or upset each other. Please place an 'X' next to those acts your husband [wife] has performed *within the past year* that have irritated, annoyed, angered, or upset you." Following this instructional set were 147 acts, initially nominated by a separate panel of subjects.

   Factor analyses (Buss, 1989) revealed the following factors (sample acts in parentheses): condescending (he treated me like I was stupid or inferior), possessive-dependent-jealous (she was too possessive of me), neglecting-rejecting-unreliable (he would not spend enough time with me), abusive (she slapped me), unfaithful (he saw someone else intimately), inconsiderate (she did not help clean up), physically self-absorbed (he fussed too much with his

appearance), moody (she acted moody), sexually withholding (he refused to have sex with me), sexualizing of others (she talked about how good-looking another man was), abusive of alcohol-emotionally constricted (he drank too much alcohol; he hid all his emotions to act tough), disheveled (she did not take care of her appearance), insulting of spouse's appearance (she told me I was ugly), sexually aggressive (he tried to force sex acts on me), and self-centered (she acted selfishly).

Scores for each subject were computed by summing the number of complaints for each subject for each factor, and then dividing by the number of items belonging to each factor. For example, if a wife said that in the past year her husband had hit her, spit on her, and called her nasty names, then she would receive a score of 3, divided by 15 (the number of items in the abusive factor). This method has the advantage of permitting comparability between sources of conflict in their prevalence.

Interviewer-based criterion variables

Following each interview, the male and female interviewers independently rated each couple on two criterion variables relevant for this study: (*a*) how much conflict exists in this relationship, and (*b*) what is the probability that this relationship will terminate. Seven-point scales were used for each variable. Subsequently, the ratings from the two interviewers were summed to form a single criterion variable each for relationship conflict and probability of termination.

RESULTS

The results are reported in six sections. First, basic descriptive data are presented—the means, standard deviations, and *t* tests for sex differences in the 15 sources of anger and upset. Second, the correlations between the personality of the subjects and their reports of upset about their spouse are reported for males and females. Third, the correlations between the personality characteristics of subjects and the reports of upset by their spouses are presented for males and females. These two sets of analyses are purely descriptive of the links between personality and upset with or by spouse, respectively.

The fourth set of results presents a series of hierarchical multiple regressions designed to tease apart the effects unambiguously due to the subject's personality in the role of eliciting actions from the spouse that are upsetting, and in performing actions that are upsetting to the spouse. The fifth set of results shows the correlations between husbands

and wives in the sources of upset elicited. Finally, correlations between each upset elicitor and two criterion variables (conflict and probability of relationship termination) are reported.

Construction of Personality Composites across Data Sources

To generate data-source generalizable indices of each of the major personality dimensions and to streamline the presentation of the results, data on personality descriptions from the three sources were combined. Prior to creating composite scores, the convergence between the two interviewers and among the three data sources was examined. The correlations across subjects between the two interviewers were .55 (Surgency), .43 (Agreeableness), .56 (Conscientiousness), .48 (Emotional Stability), and .51 (Intellect), all significant beyond the .001 level. These convergences were judged to be sufficient to warrant summing the scores of the two interviewers. The α reliabilities of these summed scores, involving 16 items per score, were .90 (Surgency), .88 (Agreeableness), .89 (Conscientiousness), .83 (Emotional Stability), and .92 (Intellect).

The correlations were computed across subjects between the personality ratings provided by the subjects, their spouses, and the summed interviewers. Surgency and Conscientiousness showed the highest convergence across data sources (mean correlations of .52 and .51, respectively). Agreeableness, perhaps being the most heavily saturated with an evaluative component, showed the lowest convergence across data sources (mean correlation of .24). Overall, this level of convergence is comparable to that achieved by other studies of personality ratings across multiple data sources (e.g., McCrae & Costa, 1985, 1987).

Scores for each of the five personality dimensions were standardized to a mean of zero and a standard deviation of 1.00. Subsequently, the three standard scored variables for each personality characteristic from the three data sources were summed. The α reliabilities for these composite variables are: Surgency (.89), Agreeableness (.84), Conscientiousness (.86), Emotional Stability (.85), and Intellect (.86).

Couple Assortment on Personality Variables

Previous research on assortative mating has documented low, but generally positive, correlations between husbands and wives on person-

ality characteristics (e.g., Buss, 1984). The magnitude of assortment found in this study parallels closely that found in the larger literature. Correlations between spouses in the self-report data source are $-.04$ (Surgency), .12 (Agreeableness), .20 (Conscientiousness), .04 (Emotional Stability), and .00 (Intellect). Analogous correlations for the spouse ratings are $-.22$ (Surgency), .07 (Agreeableness), .12 (Conscientiousness), .02 (Emotional Stability), and .12 (Intellect). For the total composite scores across all three data sources, the correlations are $-.11$ (Surgency), .33 (Agreeableness), .22 (Conscientiousness), .06 (Emotional Stability), and .31 (Intellect). In subsequent sections, where sources of conflict are predicted from personality variables, the effects due to this low level of assortment are controlled for by the use of hierarchical multiple regression.

Base Rates and Sex Differences
in Sources of Conflict

Table 1 shows the base rates and *t* tests for sex differences of each of the 15 major sources of conflict. Some of the base rates and standard deviations are quite low. For example, only 2% of the sample report anger and upset due to partner infidelities, and 2% of the women and 1% of the men report upset due to their partner's sexual aggressiveness. Low base rates and low variances will attenuate the degree to which they can be predicted from the personality measures (cf. Meehl & Rosen, 1955). Therefore, differences in the magnitude of the links between personality and source of conflict should be interpreted with caution.

The base rates themselves, together with the attendant sex differences in base rates, however, are of inherent interest in understanding conflict in couples. The most frequent complaint that wives have about their husbands is that they are inconsiderate. The most frequent complaint that husbands have about their wives centers on their moodiness. Women more frequently report anger and upset about their husbands being condescending, neglecting and rejecting, abusive of alcohol, and disheveled. Men, in contrast, more frequently report anger and upset about their wives being possessive and dependent, physically self-absorbed, and sexually withholding. Any comprehensive theory of conflict in close relationships must account for these sex differences in base rates.

Upset elicitor	Males		Females			
	Mean	SD	Mean	SD	t	p
Condescending	.15	.19	.08	.12	3.02	.003
Possessive-dependent	.09	.15	.21	.19	−5.27	.000
Neglecting-rejecting	.15	.14	.05	.08	6.36	.000
Abusive (physical and verbal)	.07	.13	.08	.14	−0.85	ns
Unfaithful	.02	.04	.02	.05	−0.80	ns
Inconsiderate	.41	.24	.13	.13	10.48	.000
Physically self-absorbed	.08	.11	.14	.17	−3.49	.001
Moody	.22	.21	.36	.23	−4.67	.000
Sexually withholding-rejecting	.06	.16	.13	.18	−2.96	.004
Sexualizes others	.08	.20	.09	.17	−0.15	ns
Alcohol abuse-emotionally constricted	.16	.18	.09	.15	3.09	.002
Disheveled	.12	.25	.05	.17	2.34	.002
Insulting of appearance	.04	.15	.03	.12	0.81	ns
Sexually aggressive	.02	.09	.01	.04	1.52	.06
Self-centered	.19	.35	.17	.30	0.49	ns
Totals	.12	.09	.11	.09	0.78	ns

Note. $N = 210$.

Personality of Complainer and Upsets Complained about

Tables 2 and 3 show the correlations between the personality character-istics of subjects and the nature of the upsets complained about. These are purely descriptive relationships but are designed to identify the role of personality in eliciting actions from the spouse that then evoke upset in the elicitor. This form of causality cannot be inferred from these cor-relational data because persons with certain personality characteristics may simply be prone to complain about certain things, whether or not their spouse has performed any action to warrant the complaint.

For males, these relationships are generally weak for all personality characteristics except for Intellect. There is a slight tendency for submis-sive males to complain that their wives are condescending, for unconsci-entious males to complain that their wives are moody and self-centered, and for emotionally unstable males to complain that their wives are inconsiderate and physically self-absorbed. Males low on Intellect,

Table 2
Personality of Complainer and
Upsets Complained about (Males)

	Surgency	Agree-ableness	Consci-entiousness	Emotional Stability	Intellect
Condescending	**−21***	06	−18	−18	−17
Possessive-jealous-dependent	−09	−08	−10	−15	**−19***
Neglecting-rejecting-unreliable	−07	11	−11	−02	−02
Abusive	−03	13	−08	−02	**−23***
Unfaithful	−17	01	−08	−13	**−21***
Inconsiderate	−11	03	−07	**−23***	−05
Physically self-absorbed	−15	−04	−14	**−21***	**−27***
Moody	−03	−05	**−21***	−18	−16
Sexually withholding-rejecting	−04	09	−14	00	−07
Sexualizes others	−10	−08	−09	−17	**−23***
Abuses alcohol-emotionally constricted	−08	−09	−08	−18	−09
Disheveled	−06	−13	15	−07	02
Insulting of appearance	−03	08	−08	−06	−07
Sexually aggressive	−01	−11	−03	−06	01
Self-centered	−18	10	**−20***	−11	−16
Totals	−13	01	−18	−19	**−24***

Note. Decimal points are omitted. Correlations in bold are statistically significant at $p < .05$.

however, complain that their wives are possessive-dependent-jealous, abusive, unfaithful, sexualizing of others, and, especially, physically self-absorbed.

The pattern of correlates for females is substantially different. Whereas Agreeableness shows no significant correlates with complaints for males, this personality dimension shows the strongest

Table 3
Personality of Complainer and
Upsets Complained about (Females)

	Surgency	Agree-ableness	Consci-entiousness	Emotional Stability	Intellect
Condescending	10	−16	**−22***	**−31*****	−01
Possessive-jealous-dependent	14	**−27****	−16	−05	02
Neglecting-rejecting-unreliable	03	**−32*****	−13	−19	−09
Abusive	07	**−28****	−03	−12	−05
Unfaithful	−18	**−19***	−08	−16	−05
Inconsiderate	−02	**−25***	07	−16	**−23***
Physically self-absorbed	**−22***	**−28****	05	−16	−11
Moody	05	**−27****	−13	−12	−16
Sexually withholding-rejecting	12	**−23***	−06	−16	−03
Sexualizes others	−04	−10	−05	−16	−06
Abuses alcohol-emotionally constricted	06	**−21***	−06	**−23***	−16
Disheveled	04	−16	−11	02	−11
Insulting of appearance	−16	−13	06	−04	03
Sexually aggressive	12	−13	−17	−18	01
Self-centered	−04	−05	−05	−08	11
Totals	06	**−37*****	−14	**−28****	−13

Note. Decimal points are omitted. Correlations in bold are statistically significant at $p < .05$.

and most prevalent correlations for females. In particular, wives low on Agreeableness tend to complain that their husbands are possessive-dependent-jealous, neglecting-rejecting-unreliable, abusive, unfaithful, inconsiderate, physically self-absorbed, moody, sexually withholding, and abusive of alcohol-emotionally constricted. Relatively unconscientious and emotionally unstable wives tend to complain that their husbands are condescending.

In sum, for males, the personality characteristics of low Intellect and low Emotional Stability carry the strongest links to complaints about wives, whereas for females, the personality characteristics of low Agreeableness and low Emotional Stability carry the strongest links with complaints about husbands.

Personality of Target and Nature of Upset Elicited

Tables 4 and 5 show the correlations between the personality characteristics of the husbands and the upset that their wives report, and vice versa. Three personality dimensions of husbands appear to play a powerful predictive role in complaints from their wives—Agreeableness, Emotional Stability, and Intellect.

In particular, the wives of husbands low on Agreeableness complain that their husbands are condescending, neglecting-rejecting-unreliable, abusive, unfaithful, inconsiderate, moody, abusive of alcohol-emotionally constricted, insulting of their appearance, and self-centered. Wives of husbands low on Emotional Stability tend to complain that their husbands are condescending, possessive-dependent-jealous, abusive, unfaithful, inconsiderate, physically self-absorbed, moody, abusive of alcohol-emotionally constricted, and self-centered.

Wives of husbands high on Surgency complain that they are condescending, whereas wives of husbands low on Conscientiousness complain that they are unfaithful. Finally, wives of husbands low on Intellect complain that they are neglecting-rejecting-unreliable, abusive, inconsiderate, physically self-absorbed, moody, sexually withholding, and abusive of alcohol-emotionally constricted.

The correlations between the personality characteristics of wives and the complaints husbands have about them are fewer and more modest in magnitude. Both Surgency and low Agreeableness in wives, however, are linked coherently with complaints by the husbands. In particular, husbands of wives high on Surgency tend to complain that they are condescending, abusive, and physically self-absorbed. Husbands of wives low on Agreeableness tend to complain that they are condescending, possessive-dependent-jealous, unfaithful, and self-centered.

The other three personality dimensions carry fewer links with complaints, but these are worth noting. Husbands of wives low on Conscientiousness tend to complain that they abuse alcohol and are emotionally constricted; those of wives low on Emotional Stability tend to complain that they are possessive-dependent-jealous; and those of wives low on

Table 4

Personality of Target and Nature of Upset Elicited
(Males)

	Surgency	Agree-ableness	Consci-entiousness	Emotional Stability	Intellect
Condescending	**19***	**−45****	03	**−20***	−03
Possessive-jealous-dependent	−08	−05	−15	**−28****	−09
Neglecting-rejecting-unreliable	08	**−38*****	−13	−16	**−24***
Abusive	12	**−43*****	−10	**−33*****	**−19***
Unfaithful	14	**−35*****	**−22***	**−31*****	−02
Inconsiderate	06	**−24***	−17	**−30****	**−26***
Physically self-absorbed	09	−17	−12	**−22***	**−30***
Moody	−13	**−29****	−17	**−37*****	**−19***
Sexually withholding-rejecting	−15	−12	03	−11	**−24***
Sexualizes others	−03	−17	−08	−06	−18
Abuses alcohol-emotionally constricted	03	**−21***	−14	**−23***	**−20***
Disheveled	−04	−11	−17	−07	−11
Insulting of appearance	18	**−27****	08	−18	07
Sexually aggressive	−08	04	06	14	−05
Self-centered	12	**−41*****	01	**−20***	−02
Totals	06	**−44*****	−15	**−38*****	**−26***

Note. Decimal points are omitted. Correlations in bold are statistically significant at
$p < .05$.

Intellect tend to complain that they sexualize others, abuse alcohol, and
are emotionally constricted.

In sum, low Agreeableness in both husbands and wives is linked
with the performance of actions that create upset in their spouses. Simi-
larly, husbands and wives high on Surgency appear to evoke upset in
their spouses through condescending behavior. Husbands and wives low

Table 5
Personality of Target and Nature of Upset Elicited
(Females)

	Surgency	Agree-ableness	Consci-entiousness	Emotional Stability	Intellect
Condescending	19*	−25**	−06	−06	03
Possessive-jealous-dependent	03	−22**	01	−25**	−07
Neglecting-rejecting-unreliable	07	−15	−09	−02	−08
Abusive	19*	−12	−04	−13	02
Unfaithful	10	−25*	−09	−10	−09
Inconsiderate	16	−07	−11	−01	−02
Physically self-absorbed	26**	−18	00	02	−07
Moody	05	−18	−10	−17	−02
Sexually withholding-rejecting	13	−11	−08	−04	−03
Sexualizes others	01	−06	−10	04	−21*
Abuses alcohol-emotionally constricted	05	−10	−23*	−05	−19*
Disheveled	09	−03	−02	−07	−10
Insulting of appearance	−01	−08	05	02	−18
Sexually aggressive	09	−14	06	−07	−03
Self-centered	04	−27**	00	−19*	−10
Totals	17*	−25**	−08	−15	−08

Note. Decimal points are omitted. Correlations in bold are statistically significant at $p < .05$.

on Emotional Stability appear to evoke upset in their spouses through actions that are possessive-dependent-jealous. Finally, low Intellect in both sexes is linked with upset in spouses associated with alcohol abuse and emotional constriction.

Beyond these similarities, however, males and females show different patterns of personality-upset links. High Surgency in females is

correlated with several sources of upset, whereas low Emotional Stability and low Intellect among males show strong links with upsets reported by spouses. In general, male personality characteristics show stronger links with upsetting actions performed, whereas female personality characteristics are more strongly implicated in evoking actions by their husbands that in turn upset them.

Hierarchical Multiple Regressions

Correlations between personality characteristics and upsetting actions performed by subjects or their spouses provide important descriptive data, but yield poor evidence regarding causal relations. The correlation between disagreeableness in females and their reported upset about their husbands being neglecting-rejecting, for example, could be due either to (*a*) the evocative effect of the wife's disagreeable personality on the husband's upsetting actions, or (*b*) the tendency for disagreeable females to complain a lot about certain clusters of behaviors that may not be performed any more frequently by the husbands of disagreeable women.

To address these causal possibilities, a series of hierarchical multiple regressions were conducted. Each source of upset (e.g., female upset about husband being condescending) was treated as the dependent variable, and two blocks of predictor variables were entered hierarchically: (*a*) the block of five personality variables of the complainer, and (*b*) the block of five personality variables of the spouse being complained about. Significant increments on the second step provide an index of the role of a spouse's personality in upsetting actions performed by them, above and beyond the effects of the person reporting the complaint. This may be regarded as a stringent or conservative test of the role of personality in performing actions that upset the spouse because the first step in the regression equation absorbs any shared predictive variance due to the joint effects of the personality characteristics of both spouses (see earlier section on assortment). The significant increments from the second step of the regression equations are shown in Table 6, along with the sex of the evoker of upset and the final multiple R.

By far the most powerful personality variable in evoking upset in the spouse is disagreeableness, particularly among males. Significant increments occur for condescending, possessive-dependent-jealous, neglecting-rejecting, abusive, moody, sexually aggressive, and self-centered.

Table 6
Hierarchical Multiple Regression Significant Effects after Personality
of Complainer Entered

Evoked complaint	Sex of evoker	F	p	Multiple R
Surgency				
Disheveled (+)	Male	4.55	.036	.46
Physically self-absorbed (+)	Female	6.35	.013	.38
Agreeableness				
Condescending (−)	Male	11.44	.001	.58
Dependent (−)	Male	4.65	.030	.36
Neglecting (−)	Male	3.83	.053	.47
Abusive (−)	Male	3.41	.068	.42
Moody (−)	Male	4.94	.029	.46
Sexually aggressive (−)	Male	4.09	.046	.34
Self-centered (−)	Male	13.67	.001	.45
Self-centered (−)	Female	4.12	.045	.42
Conscientiousness				
Unfaithful (−)	Male	10.32	.002	.49
Disheveled (−)	Male	6.86	.010	.46
Insulting of appearance (+)	Male	10.48	.002	.43
Emotional Stability				
Dependent (−)	Male	5.70	.019	.36
Moody (−)	Male	2.93	.090	.46
Dependent (−)	Female	7.08	.009	.40
Intellect				
Abusive (−)	Male	3.44	.056	.42
Inconsiderate (−)	Male	4.72	.032	.46
Moody (−)	Male	6.08	.016	.46

The link between abuse and disagreeableness in husbands supports the initial correlational analysis. Also supported are the links between low Conscientiousness and unfaithfulness and disheveledness by males. Interestingly, males high on Conscientiousness appear to evoke upset in their wives by insulting their appearance. Also substantiated are the links between low Emotional Stability and behavior that is possessive-dependent-jealous (for both sexes) and moody (for males only).

Low Intellect in husbands appears to evoke upset in wives through

actions that are abusive, inconsiderate, and moody. Finally, Surgency
is linked with physically self-absorbed actions by wives and disheveled
appearance in husbands.

Correlations between Spouses in
Sources of Upset

Correlations were computed between husbands and wives in the sources
of upset elicited. Several interesting patterns were revealed, most
notably those associated with sexual behavior. Husbands who report
that their wives are sexually aggressive, for example, have wives who
report that their husbands are unfaithful and sexually withholding. Hus-
bands who report that their wives are unfaithful have wives who tend to
report that their husbands are sexually withholding.

Wives who report that their husbands are possessive-dependent
have husbands who report that their wives are neglecting-rejecting-
unreliable, inconsiderate, and self-centered. In general, sexual aggres-
siveness by wives shows the strongest correlations with the wife's
upset about her husband, especially on the dimensions of neglecting-
rejecting, abusive, unfaithful, sexually withholding, and abusive of
alcohol-emotionally constricted. In contrast, moodiness of the hus-
band shows the strongest links with the husband's upset about his wife,
especially on the dimensions of neglecting-rejecting, unfaithful, incon-
siderate, moody, insulting of appearance, and self-centered.

Causality, of course, cannot be inferred from these correlational
data. Whether husbands become moody in response to wives who
are neglecting, rejecting, unfaithful, inconsiderate, insulting, and self-
centered, or whether moodiness of husbands causes wives to behave in
these upsetting ways cannot be determined. Nor can third variables be
ruled out. Nonetheless, these intriguing cross-person correlations pro-
vide descriptive insight into the dynamics of the evocation of upset and
anger in marital relationships, and suggest important avenues for future
research.

Correlations between Interviewer Judgments
of Conflict, Spouse-Reported Sources of
Conflict, and Personality

The final set of analyses were the correlations between each of the
sources of anger and upset and judgments of conflict and proba-

bility of relationship termination reported by interviewers. In general, wives' reports about upset with their husbands show the strongest correlations with these criterion variables. Especially predictive of the judged conflict are reports of the husband being condescending ($+.48$), neglecting-rejecting-unreliable ($+.39$), abusive ($+.38$), and unfaithful ($+.33$) ($p < .001$ in all cases).

Do the five personality variables predict interviewers' perceptions of conflict and judgments of termination probability directly? For men's personality characteristics, low Agreeableness and low Emotional Stability were the strongest predictors of judged conflict ($-.47$ and $-.33$, respectively, all ps $< .001$) and judged termination probability ($-.50$ and $-.35$, $p < .001$ in each case). For women's personality characteristics, Agreeableness, Conscientiousness, and Emotional Stability were all predictors of interviewers' perceptions of conflict in the relationship ($-.46$, $-.36$, and $-.40$, respectively, all ps $< .001$), whereas significant predictors of termination probability were restricted to Agreeableness ($-.43$, $p < .001$) and Conscientiousness ($-.30$, $p < .002$). It will be especially interesting to examine whether these early signs of conflict predict actual separation and divorce among these married couples—now being assessed in their fifth year of marriage.

DISCUSSION

This study explores the role of major dimensions of personality in (a) performing actions that evoke upset in one's spouse, and (b) eliciting actions from one's spouse that are upsetting. Thus, it is a step toward elucidating the mechanism of evocation, toward understanding in greater detail each dimension of the five-factor model, and toward understanding the role of personality in predicting specific sources of conflicts in close relationships.

Implications for Conflict in Marriages

On the assumption that these personality characteristics show moderate to high stability over time (McCrae & Costa, 1982, 1985), the empirical data provide information on the sources of upset and anger likely to befall those who marry persons with certain personality profiles. Low Agreeableness and low Emotional Stability appear to be especially potent personality characteristics of males that are linked with performing a wide array of actions upsetting to their wives. Women with

husbands who have this personality combination report condescension, abuse, unfaithfulness, inconsiderateness, alcohol abuse, emotional constriction, and self-centeredness.

Low Intellect among males also predicts major classes of upset, including upset due to neglect, inconsiderateness, abuse, self-absorption, moodiness, sexual withholding, alcohol abuse, and emotional constriction. Husbands high in Surgency are likely to upset their wives by being condescending, whereas husbands low on Conscientiousness upset their wives by being unfaithful.

The pattern of upset husbands experience when married to wives with certain personality dispositions shows some similarities and some differences when contrasted with the patterns summarized above. Like the pattern above, low Agreeableness in wives is the strongest predictor of anger and upset. Husbands married to disagreeable mates report that their mates upset them through being condescending, possessive-dependent-jealous, unfaithful, and self-centered. Like the pattern for husbands, low Emotional Stability of wives is linked with the husband's upset over possessiveness, dependency, and jealousy. Also like the husband pattern, low Intellect of wives is linked with alcohol abuse and emotional constriction.

The most important distinctive pattern associated with the personality pattern of wives, however, centers on high Surgency. High Surgency females appear to upset their husbands by being condescending but also by being abusive and physically self-absorbed. Although it would be premature to assert that there are personality patterns that one should avoid in prospective mates, it is safe to conclude that these results identify the sources of upset more likely to befall those who marry persons with these personality characteristics.

Future research could profitably turn toward integrating the current personality-focused approach to marital conflict with more process-oriented approaches such as those of Gottman (1976) and Rusbult (1980, 1983). Rusbult (1983) developed an investment model of relationships and found that increases in rewards received from a partner predicted greater satisfaction early in couple relationships, whereas increases in the costs of a relationship predicted decreases in satisfaction only in the later stages of involvement. The current study suggests that the personality characteristics of one's partner, particularly the dimensions of low Agreeableness and low Emotional Stability, are closely linked to the imposition of some forms of cost such as abuse, unfaith-

fulness, and neglect. Future research could combine the investment model with the current results to examine the ways in which the dispositions of husbands and wives affect the specific costs and benefits experienced by partners, and the subsequent degrees of commitment (and relationship deterioration) that result.

Because this sample consisted of couples within the first year of marriage, most of whom are childless, the portrait of conflicts is undoubtedly different from what would be found with couples married longer. For example, the low base rate of reported complaints about infidelity (2%) may be expected to increase as couples are married longer. Similarly, conflict over child care and child rearing may be expected to become salient as the couples bear offspring. The longitudinal study of this sample of couples, now in their fifth year of marriage, should reveal these changing patterns of conflict as well as which personality characteristics remain important predictors of conflict in couples.

Implications for Dimensions of the
Five-Factor Model

These results make a basic contribution to personality psychology by illuminating the evocative nature of each of five major personality dimensions. For example, Wiggins (1979) argues on theoretical grounds that a critical feature of Surgency or dominance is granting status to the self while denying status to others. No empirical data have previously confirmed this proposition. The present study found links for both males and females between Surgency and complaints by spouse of condescension, a composite that includes acts such as (a) placing more value on his/her opinions because he/she was a man/woman, (b) trying to act like he/she was better than spouse, (c) treating spouse like he/she was stupid or inferior, and (d) making spouse feel inferior. These results support Wiggins's (1979) conceptual proposition that this first factor indeed reflects bestowing status on the self and denying status to others, in this case to one's mate.

The empirical association for both sexes between low Emotional Stability and complaints by spouses of possessiveness-jealousy-dependency may seem almost definitional, but it deepens the understanding of this fourth factor. Two of the highest loading items on this upset elicitor are "He/she demanded too much attention," and "He/she demanded too much of my time." This implies that low Emotional Stability does

not merely involve anxiety, insecurity, and lability of affect (e.g., H. S. Eysenck & S. B. G. Eysenck, 1975), but also the absorption of time, energy, and resources of intimate others.

There is some controversy about the proper designation of the fifth factor in five-factor models. Norman (1963) named this factor "Culture." McCrae and Costa (1985) make a strong case for "Openness to Experience" as the proper designation. Finally, Digman and Inouye (1986) suggest "Intellect" as the proper designation—a designation supported recently by Goldberg (1988). The links between low Intellect and complaints by the spouse of emotional constriction in this study lend support to McCrae and Costa's suggestion that openness to experience (or lack thereof) constitutes an important feature of the fifth factor.

Personality in Interactional Context

The interactional agenda has occupied a prominent place in personality psychology for the past two decades (Bowers, 1973; Buss, 1987; Emmons, Diener, & Larsen, 1986; Magnusson & Endler, 1977; Snyder & Ickes, 1985). It is clear that the analysis of variance (ANOVA) solution to interactionism, crossing features of persons with features of situations in experimental designs, is inherently limited as a general model because individuals in everyday life do not randomly assign themselves to environments, nor are all attributes of persons crossed with all attributes of environments (Buss, 1984; Golding, 1975; Wachtel, 1973).

Interactional processes pivot centrally around the ways in which persons are nonrandomly exposed to environments and the mechanisms responsible for creating nonrandom exposure. The results of this study implicate selection and evocation as two central interactional mechanisms. Mates with certain personality characteristics will perform and elicit actions that evoke upset in their partners. The *selection* of mates with certain personality characteristics therefore produces predictable forms of *evocation*. Selection and evocation are causally connected over time.

There is a sense in which traditional trait views have occluded the study of these interactional processes. Focusing on traits as abstract attributes of persons does not immediately suggest interactional consequences nor point to an interactional agenda (cf. Cantor, 1990). Actions performed by persons, however, are not static attributes, but rather

events that carry tangible consequences. Unpacking the classes of acts to which traits correspond (Buss & Craik, 1983) immediately raises questions about consequences that are not otherwise posed. The consequences of treating others as though they are stupid, demanding too much time of a partner, slapping or spitting on a partner, or having sex with another person are clearer than the consequences of deviating from the mean on Surgency, Emotional Stability, Agreeableness, or Conscientiousness as abstract properties. Trait conceptions need not be static. Traits have dynamic interactional consequences, but the relevant classes of acts and their consequences must be documented before these properties can be seen.

This research is just one step toward placing personality in interactional context. The evocation of anger and upset is a subset of a larger class of evocative events. The results are encouraging enough to suggest that personality may also play a powerful role in evoking other events such as elation and lust in partners, aid from allies, or derogation by competitors. Whereas the past decade has documented the importance and stability of the five factors of personality, the next decade should demonstrate the power of personality as a necessary component of interactional psychology.

REFERENCES

Alexander, R. D. (1987). *The biology of moral systems*. New York: Aldine.

Barry, W. A. (1970). Marriage research and conflict: An integrative review. *Psychological Bulletin*, **73**, 185–193.

Bell, R. Q. (1968). A reinterpretation of the direction of effects studies of socialization. *Psychological Review*, **75**, 81–95.

Bentler, P. M., & Newcomb, M. D. (1978). Longitudinal study of marital success and failure. *Journal of Consulting and Clinical Psychology*, **46**, 1053–1070.

Bowers, K. S. (1973). Situational psychology: An analysis and a critique. *Psychological Review*, **80**, 307–336.

Burgess, E. W., & Wallin, P. (1953). *Engagement and marriage*. New York: Lippincott.

Buss, D. M. (1981). Predicting parent-child interactions from children's activity level. *Developmental Psychology*, **17**, 59–65.

Buss, D. M. (1984). Marital assortment for personality dispositions: Assessment with three different data sources. *Behavior Genetics*, **14**, 111–123.

Buss, D. M. (1984). Toward a psychology of person-environment correspondence: The role of spouse selection. *Journal of Personality and Social Psychology*, **47**, 361–377.

Buss, D. M. (1987). Selection, evocation, and manipulation. *Journal of Personality and Social Psychology*, **53**, 1214–1221.

Buss, D. M. (1989). Conflict between the sexes: Strategic interference and the evocation of anger and upset. *Journal of Personality and Social Psychology*, **56**, 735–747.

Buss, D. M. (in press). Manipulation in close relationships: Five personality factors in interactional context. *Journal of Personality*.

Buss, D. M., & Craik, K. H. (1983). The act frequency approach to personality. *Psychological Review*, **90**, 105–126.

Buss, D. M., Gomes, M., Higgins, D. S., & Lauterbach, K. (1987). Tactics of manipulation. *Journal of Personality and Social Psychology*, **52**, 1219–1229.

Cantor, N. (1990). From thought to behavior: "Having" and "doing" in the study of personality and cognition. *American Psychologist*, **45**, 735–750.

Caspi, A. (1987). Personality in the life course. *Journal of Personality and Social Psychology*, **53**, 1203–2113.

Caspi, A., Bem, D. J., & Elder, G. H., Jr. (1989). Continuities and consequences of interactional styles across the life course. *Journal of Personality*, **57**, 375–406.

Cattell, R. B. (1973). *Personality and mood by questionnaire*. San Francisco: Jossey-Bass.

Dawkins, R. (1976). *The selfish gene*. New York: Oxford University Press.

Digman, J., & Inouye, J. (1986). Further specification of the five robust factors of personality. *Journal of Personality and Social Psychology*, **50**, 116–123.

Doherty, W. J., & Jacobson, N. S. (1982). Marriage and the family. In B. B. Wolman (Ed.), *Handbook of developmental psychology* (pp. 667–679). Englewood Cliffs, NJ: Prentice Hall.

Emmons, R. A., & Diener, E. (1986). Situation selection as a moderator of response consistency and stability. *Journal of Personality and Social Psychology*, **51**, 1013–1019.

Emmons, R. A., Diener, E., & Larsen, R. J. (1986). Choice and avoidance of everyday situations and affect congruence: Two models of reciprocal interactionism. *Journal of Personality and Social Psychology*, **51**, 815–826.

Eysenck, H. J., & Eysenck, S. B. G. (1975). *Eysenck Personality Questionnaire manual*. San Diego: Educational Testing Service.

Goldberg, L. R. (1981). Language and individual differences: The search for universals in personality lexicons. In L. Wheeler (Ed.), *Review of personality and social psychology* (Vol. 2, pp. 141–165). Beverly Hills: Sage.

Goldberg, L. R. (1982). From ace to zombie: Some explorations in the language of personality. In C. D. Spielberger & J. N. Butcher (Eds.), *Advances in personality assessment* (Vol. 1, pp. 203–234). Hillsdale, NJ: Lawrence Erlbaum.

Goldberg, L. R. (1983, June). *The magical number five, plus or minus two: Some considerations on the dimensionality of personality descriptors*. Paper presented at a research seminar of the Gerontology Research Center, NIA/NIH, Baltimore, MD.

Goldberg, L. R. (1988). *Standard markers of the five factors of personality*. Unpublished manuscript, Oregon Research Institute, University of Oregon.

Golding, S. L. (1975). Flies in the ointment: Methodological problems in the analysis of the percentage of variance due to persons and situations. *Psychological Bulletin*, **82**, 278–288.

Gottman, J. (1976). Behavior exchange theory and marital decision making. *Journal of Personality and Social Psychology*, **34**, 14–23.

Hogan, R. (1983). Socioanalytic theory of personality. In M. M. Page (Ed.), *1982 Nebraska Symposium on Motivation: Personality-current theory and research* (pp. 55–89). Lincoln: University of Nebraska Press.

John, O. P. (1989). Towards a taxonomy of personality descriptors. In D. M. Buss & N. Cantor (Eds.), *Personality psychology: Recent trends and emerging directions* (pp. 261–271). New York: Springer-Verlag.

Kelly, E. L., & Conley, J. J. (1987). Personality and compatibility: A prospective analysis of marital stability and marital satisfaction. *Journal of Personality and Social Psychology, 52,* 27–40.

Magnusson, D., & Endler, N. S. (1977). *Personality at the crossroads: Current issues in interactional psychology.* Hillsdale, NJ: Lawrence Erlbaum.

McCrae, R. R., & Costa, P. T. (1982). Self-concept and the stability of personality: Cross-sectional comparisons of self-reports and ratings. *Journal of Personality and Social Psychology, 43,* 1282–1292.

McCrae, R. R., & Costa, P. T. (1985). Updating Norman's adequate taxonomy of personality: Personality dimensions in natural language and in questionnaires. *Journal of Personality and Social Psychology, 49,* 710–721.

McCrae, R. R., & Costa, P. T., Jr. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology, 52,* 81–90.

Meehl, P. E., & Rosen, A. (1955). Antecedent probability and the efficiency of psychometric signs, patterns, or cutting scores. *Psychological Bulletin, 52,* 194–216.

Miller, L. C., Berg, J. H., & Archer, R. L. (1983). Openers: Individuals who elicit intimate self-disclosure. *Journal of Personality and Social Psychology, 44,* 1234–1244.

Muehlenhard, C. L., & Linton, M. A. (1987). Date rape and sexual aggression in dating situations: Incidence and risk factors. *Journal of Counseling Psychology, 34,* 186–196.

Norman, W. T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. *Journal of Abnormal and Social Psychology, 66,* 574–583.

Plomin, R., DeFries, J. C., & Loehlin, J. C. (1977). Genotype-environment interaction and correlation in the analysis of human behavior. *Psychology Bulletin, 88,* 245–258.

Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of Experimental Social Psychology, 16,* 172–186.

Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology, 45,* 101–117.

Scarr, S., & McCartney, K. (1983). How people make their own environments: A theory of genotype-environment effects. *Child Development, 54,* 424–435.

Snyder, M. (1984). When belief creates reality. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 18, pp. 248–305). Orlando: Academic Press.

Snyder, M., & Ickes, W. (1985). Personality and social behavior. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (Vol. 2, pp. 883–947). New York: Random House.

Swann, W. B., Jr. (1987). Identity negotiation: Where two roads meet. *Journal of Personality and Social Psychology, 53,* 1038–1051.

Terman, L. M., & Buttenweiser, P. (1935). Personality factors in marital compatibility. *Journal of Psychology, 6,* 143–171.

Terman, L. M., & Oden, M. H. (1947). *The gifted child grows up: Twenty-five-year follow-up of a superior group*. Stanford: Stanford University Press.

Thorne, A. (1987). The press of personality: A study of conversations between introverts and extraverts. *Journal of Personality and Social Psychology*, **53**, 718–726.

Wachtel, P. (1973). Psychodynamics, behavior therapy, and the implacable experimenter: An inquiry into the consistency of personality. *Journal of Abnormal Psychology*, **82**, 324–334.

Wiggins, J. S. (1979). A psychological taxonomy of trait descriptive terms: The interpersonal domain. *Journal of Personality and Social Psychology*, **37**, 395–412.

Wiggins, J. S., & Pincus, A. (1989). Conceptions of personality disorders and dimensions of personality. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, **1**, 305–316.

Zalenski, Z., & Galkowitz, M. (1978). Neuroticism and marital satisfaction. *Behaviour Research and Therapy*, **16**, 285–286.

Correlates of the Temporal Consistency of Personality Patterns in Childhood

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ABSTRACT The temporal consistency of children's personality patterns as measured by the California Child Q-set was investigated in a sample of 151 German children between ages 4 and 6 years, and in a sample of 87 Dutch children between ages 10 and 12 years. Children's personality patterns showed a high interindividual variance of consistency. Correlational analyses revealed that children's ego resiliency predicted the longitudinal consistency of their Q-sort patterns irrespective of variations in age, culture, and type of judge. Itemwise extreme group comparisons of very consistent and very inconsistent children with a middle group showed that consistent children were characterized by culturally desirable traits, and inconsistent children by undesirable traits. The items typical for consistent children changed with age in agreement with the change in major developmental tasks. Discussion focuses on the processes that mediate the positive relations between the temporal consistency of personality, ego resiliency, and the age-appropriateness of personality.

Numerous studies have investigated the longitudinal stability of the rank order of individuals in a particular personality trait (see reviews

of Conley, 1984, for adulthood, and Moss & Susman, 1980, for childhood). Because these studies evaluate the temporal stability of the interindividual differences in one variable, they have been called "variable-centered approaches to personality" (J. Block, 1971; Magnusson, 1988). Not surprisingly, different stabilities have been found for different traits within the same sample of individuals (e.g., IQ is more stable than extraversion, and extraversion is more stable than overall self-esteem among adults; see Conley, 1984).

A very different approach to the consistency of personality is to investigate the longitudinal consistency of the ranking of various traits in terms of their saliency for a particular person (see J. Block, 1971; J. H. Block & J. Block, 1980; Magnusson, 1988; Ozer & Gjerde, 1989). For example, if John is highly aggressive, good in sports, average in intelligence, and low in concentration ability at age 8, does John show the same pattern of traits at age 12? This "person-centered approach" (J. Block, 1971; Magnusson, 1988) evaluates the temporal consistency of intra-individual differences in one person. If we follow Allport's (1937) definition of personality as the individual organization of behavior, this type of consistency reflects the consistency of personality more directly than the variable-centered notion of trait stability. Not surprisingly, different consistencies have been found for different persons in regard to the same sample of traits.

For example, Ozer and Gjerde (1989) examined the 3- to 4-year consistency of personality at various ages within the age range of 3 to 18 years on the basis of Q-sort descriptions (using the California Child Q-set for ages 3 to 14, and the California Adult Q-set for ages 14 to 18). These are sets of 100 items describing a wide range of social and cognitive personality attributes. For an individual person, these items are sorted into nine categories of saliency ("least characteristic for the person" to "most characteristic for the person"). Thus, each person was described by a profile on 100 items. The sorts of at least three different raters per person and assessment were averaged, and different raters served for different assessments. The consistency scores for the Q-sort patterns of 44 females and 40 males varied at least between −.01 and .80 for four age comparisons and both genders. Some subjects were remarkably consistent in their Q-sort pattern, whereas others changed considerably. What factors contribute to this high variability of consistency?

Some of the variance reported by Ozer and Gjerde (1989) and others

(e.g., Göttert & Asendorpf, 1989) may be due to differences among observers rather than to differences among children. These differences in perception may be related to the accuracy of observers, but they may also reflect meaningful differences in the situational context in which the behavior is observed, or in the focus on particular aspects of behavior. If a child is evaluated by different observers at different points in time, differences among observers will necessarily cause some variation in the consistency of the personality descriptions of the child. If children are evaluated by the same observers at both points in time, a similar though probably somewhat smaller effect stems from temporal changes in the accuracy of the observers' perception of the child. Thus, the variability of consistency will be overestimated in both cases by observer effects. These effects can be minimized by aggregating the personality descriptions of many observers for each child.

Because Ozer and Gjerde (1989) used at least three observers per subject, it is very likely that much of the variance of the consistency coefficients in this study could not be attributed to different perceptions. Instead, it reflects differences among subjects' consistency of personality. Ozer and Gjerde (1989) tried to approach these differences by a gender-specific cluster analysis of the four consistency coefficients obtained from each subject. These clusters describe different patterns of consistency through the 3- to 18-year age range (e.g., always consistent or increasingly consistent). For both males and females, the largest cluster consisted of subjects with a continual high consistency of personality. These subjects differed from the rest of the sample in terms of their most characteristic and least characteristic items. Although these typical characteristics changed from age to age and were somewhat different for males and females, consistent subjects were always described as having more culturally desirable traits (e.g., high intellectual capacity), and less undesirable traits (e.g., fearfulness); see Hampson, Goldberg, and John (1987), for a discussion of the cultural desirability of personality traits. J. Block (1971) reported a similar finding for another sample followed from junior through senior high school.

The present study was aimed at conceptually replicating and refining the major findings of Ozer and Gjerde (1989), and in addition at testing the hypothesis that one particular higher order trait is positively related to the temporal consistency of personality in childhood: ego resiliency. The construct of ego resiliency was defined by J. H. Block and J. Block (1980)

at one extreme by resourceful adaptation to changing circumstances and environmental contingencies, analysis of the "goodness of fit" between situational demands and behavioral possibility, and flexible invocation of the available repertoire of problem-solving strategies. . . . The opposite end of the ego-resiliency continuum (ego-brittleness) implies little adaptive flexibility, an inability to respond to the dynamic requirements of the situation, a tendency to perseverate or to become disorganized when encountering changed circumstances or when under stress, and a difficulty in recouping after traumatic experiences. (p. 48)

The more ego-resilient people are, the more they can adapt to changing environments in an active way by controlling their environment within the limits provided by nature and society. One particular consequence of ego resiliency is that people can better seek out, shape, and create environments that are compatible with their personality (see Allport, 1937; Plomin, 1986; Scarr & McCartney, 1983; Snyder & Ickes, 1985). In addition, ego-resilient persons will more likely receive positive feedback on their actions. They thus reach a better personality-environment fit which, in turn, stabilizes their personality pattern. Through this process, ego resiliency stabilizes personality. Thus, our main premise is that ego resiliency promotes the temporal consistency of personality by person → environment effects.

In the present study we tested this hypothesis directly by correlating Q-sort indices of ego resiliency with the 2-year consistency of children's personality. These indices were obtained by correlating each child's Q-sort profile with the prototypic profile of an "ego-resilient child" (as defined by J. H. Block & J. Block, 1980). To test the robustness of the results, culture, age, and type of Q-sort (teacher vs. mother) were allowed to vary.

Furthermore, extreme group comparisons of highly consistent, average, and highly inconsistent children were conducted in order to explore which other traits are related to the consistency and to the inconsistency of personality. This methodological approach carries the analysis beyond correlations or the Ozer and Gjerde (1989) method because it allows us to detect traits that are related to consistent personality patterns but not to inconsistent ones, and vice versa. This is an important advantage if the personality patterns that characterize consistent children are not simply a mirror image of those patterns that characterize inconsistent children.

METHOD

Subjects

Data from two different samples are analyzed. The German sample was drawn from the Munich Longitudinal Study on the Genesis of Individual Competencies (LOGIC), which is relatively unbiased in terms of IQ and social class (Weinert & Schneider, 1989). Children were recruited for the LOGIC study in 1984 when they started preschool at an age of 3 to 4 years. The present data refer to the 151 children (78 boys, 73 girls) with no missing values in the assessments at age 4 (± 6 months) and 2 years (± 2 months) later at age 6.

Subjects in the Dutch sample participated in a longitudinal project on the development of competence carried out at the University of Nijmegen. The study started in 1975 with 100 firstborn, 9-month-old children (47 boys, 53 girls; Riksen-Walraven, 1978). The majority of the group consists of low-socioeconomic status (SES) families. The present data refer to the 87 children (46 girls, 41 boys) who were assessed both at age 10 and at age 12.

Q-Sort Assessments

The samples were assessed by German, or Dutch, versions of the California Child Q-set (CCQ; J. H. Block & J. Block, 1980). The CCQ is a Q-sort procedure containing 100 statements about a child's social and cognitive personality characteristics. Q-sorts were done following the instructions provided by J. H. Block and J. Block (1983). In particular, judges were instructed to sort the Q-sort items for each child into 9 categories of saliency for that child, ranging from "least characteristic for the child" to "most characteristic for the child." Judges were instructed to sort the items in such a way that each category contained the same number of items (forced equal distribution). Thus, each child was described by a profile of scores ranging from 1 to 9, and the means and standard deviations of the profiles were identical for all children.

The German version of the CCQ (Göttert & Asendorpf, 1989) was a translation of the 54-item short form of the CCQ developed by Schiller (cited in J. H. Block & J. Block, 1980). This short form had been shown to represent the major dimensions of the original 100-item CCQ well (e.g., ego resiliency). In the Dutch sample, a Dutch translation of the full 100-item CCQ was used (van Lieshout et al., 1986).

In Germany, children's main teachers in class served as judges. Because no difference is made in Germany between preschool and kindergarten, children often stay for 3 years in the same class with the same teacher. In the present sample, the same teacher provided the Q-sorts of both assessments for 97 children (64% of the sample). The Q-sorts of the remaining 54 children were obtained from different teachers (7 children changed class, and the teachers

of 47 children changed during the 2-year period). In the Dutch sample, children's main teachers also provided the Q-sort descriptions at both ages. For the majority of children, the teacher changed between the two assessments. In addition, Q-sort descriptions were given at the same two ages by the main caregiver of the child (at age 10, 85 mothers, 2 fathers; at age 12, 83 mothers, 4 fathers).

In both samples, the Q-sort of each child was correlated with the Q-sort prototype of a resilient child that was used in the research of J. H. Block and J. Block (see J. H. Block & J. Block, 1983, for a definition). These authors asked experts to describe the personality of a typical resilient child using the 100 items of the CCQ, and then averaged the (highly similar) Q-sorts of the experts; the resulting Q-sort was considered a prototypic description of a resilient child. Thus, in our study we obtained for each child and year of assessment one correlation that described the similarity between the child's personality and the personality of a prototypic resilient child. These similarity scores served as the ego-resiliency scores of the children for each assessment.

RESULTS

Correlations among Ego-Resiliency Scores

Figure 1 contains the zero-order Pearson correlations among all assessments of ego resiliency. Three correlations describe the temporal stability of the resiliency judgments of the same type of judge (M_{10}-M_{12}; T_{10}-T_{12}; T_4-T_6), two correlations describe the synchronic consistency of the resiliency judgments between different types of judges (M_{10}-T_{10}; M_{12}-T_{12}), and two correlations describe diachronic (cross-time) relations between different judges (M_{10}-T_{12}; T_{10}-M_{12}).

The 2-year stabilities of the German teacher scores tended to be lower than the 2-year stabilities of the Dutch teacher scores. This tendency might be attributed to the younger age of the German sample. The stabilities for the children who were judged by the same teachers did not significantly differ from the comparable stabilities for the children who were judged by different teachers. The Dutch mother scores showed a very high stability and only a moderate synchronic consistency with the teacher scores; the stability of the teacher scores was lower than the stability of the mother scores; and the diachronic relations between different judges were particularly low. This pattern of correlations is to be expected because (*a*) mothers and teachers observe children in different environments, which prevents high synchronic consistencies and leads to diachronic correlations that are lower than the stability co-
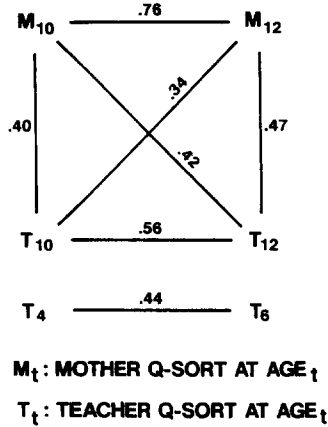
Figure 1
Zero-Order Pearson Correlations among the Ego-Resiliency Scores

efficients; and (b) mothers remained the same whereas most children were judged by different teachers at the two assessments, which yields higher stabilities of the mother judgments as compared to the stabilities of the teacher judgments.

Temporal Consistency of Q-Sort Patterns

As in Ozer and Gjerde's (1989) study, the temporal consistency of the Q-sort patterns was determined for each child by correlating the child's Q-sort profile between two points in time. Table 1 provides descriptive data about the distributions of the 2-year consistencies of the Q-sort profiles for the three types of judgments; this table can be directly compared with Table 1 in Ozer and Gjerde (1989).

The consistencies are somewhat lower than those reported by Ozer and Gjerde (1989) for a comparable age range because in the present study there was only one judge for each child. According to a Wilcoxon test (Bradley, 1968), German children who were judged by different teachers were as consistent in their Q-sort patterns as those judged by the same teacher. More important for the present study is the great interindividual variation of the consistencies, which ranged from − .44 to + .88; this great range of variation is comparable with the variability found by Ozer and Gjerde (1989).

Type of judgment	N	2-year consistencies (Pearson rs)				
		Mini-mum	Q1[a]	Median	Q3[a]	Maxi-mum
German teacher sort, ages 4 to 6	151	−.44	.24	.43	.58	.88
Dutch teacher sort, ages 10 to 12	80	−.09	.32	.47	.60	.87
Dutch mother sort, ages 10 to 12	87	−.24	.45	.61	.70	.83

Note. The correlation between the consistencies of the teacher sorts and the consistencies of the mother sorts was .19 ($p < .05$).
a. Q1 and Q3 are the first and third quartiles, respectively, of the distribution of the consistency coefficients.

Table 2
Prediction and Retrodiction of the Consistency of Personality
by Ego Resiliency

Consistencies	N	Ego-resiliency score			
		T1	M1	T2	M2
Teacher, ages 4 to 6	151	.57***	—	.29***	—
Teacher, ages 10 to 12	80	.38***	.23*	.47***	.33**
Mother, ages 10 to 12	87	.25*	.49***	.31**	.36***

Note. Reported are Pearson correlations between Pearson correlations. T1 = teacher Q-sort, first assessment; M1 = mother Q-sort, first assessment; T2 = teacher Q-sort, second assessment; M2 = mother Q-sort, second assessment.
*$p < .05$
**$p < .01$
***$p < .001$.

Relations between the Consistency of Q-Sort Patterns and Ego Resiliency

Table 2 presents the correlations between children's 2-year consistencies of Q-sort patterns and their ego-resiliency scores at the first and the second assessment.

Irrespective of the variation of culture, age, and type of judge, ego resiliency significantly predicted and retrodicted the consistency of the Q-sort patterns—even if the resiliency scores were based on the Q-sort pattern of a different type of judge (e.g., the temporal consistency of

mothers' Q-sort was significantly predicted by the teacher resiliency scores).

The influence of judgment effects on these relations could be tested in the German sample by comparing the two subsamples with the same versus a different teacher in terms of the correlational pattern of Table 2. No systematic differences were observed. In particular, even for the small subsample of children whose teacher had changed, all four predictive/retrodictive correlations were positive and significant (in each case, $p < .007$). Thus, judgment effects cannot explain the dependency of consistency on ego resiliency.

Furthermore, the predictions and retrodictions of consistency always tended to be higher if the predictors/retrodictors were based on the Q-sorts that were evaluated for consistency. This may be due to context effects: The processes responsible for the translation of ego resiliency into consistency differ between the social contexts that are relevant for mothers' versus teachers' judgments.

Extreme Group Analyses

The correlations of Table 2 are significant, but moderate to low in most cases. Therefore, it is not clear whether they reflect differences between consistent and average children, differences between inconsistent and average children, or both. Furthermore, ego resiliency is a broad construct that comprises diverse personality characteristics, some of which may show particularly close relations with consistency. Extreme group analyses comparing consistent, average, and inconsistent children in terms of the saliency of single Q-sort items can explore both questions.

For the German Q-sort, the Dutch teacher sort, and the Dutch mother sort, the 15 most consistent children and the 15 least consistent children were compared with the 15 children concentrated around the median of consistency by t tests separately conducted for each Q-sort item. Because of the many tests applied, an item was considered to distinguish between an extreme group and the average group only if the t test was significant at the .01 level. This procedure protects against interpretations of chance results in both samples in the same way, but its capacity to detect group differences might be somewhat lower for the Dutch sample due to its smaller size. Therefore, effect sizes of the group differences are reported for each significantly discriminating item (effect sizes are independent of sample n). Table 3 presents the results for the six Q-sort assessments.

Table 3
Q-Sort Correlates of Consistent and Inconsistent Children

Consistent children	Inconsistent children
German teacher sort, age 4	*German teacher sort, age 4*
Not stubborn (90; 1.48)	Not considerate of peers (2; 1.75)
Attentive (66; 1.43)	Dramatizes mishaps (57; 1.74)
Not easily offended (78; 1.37)	Not planful (67; 1.32)
Gets along well with peers (4; 1.35)	Easily irritated (95; 1.24)
Considerate of peers (2; 1.17)	Cannot be trusted (76; 1.19)
Does not transfer blame (11; 1.16)	Not competent or skillful (89; 1.17)
Admired by peers (5; 1.15)	Does not respond to reason (25; 1.16)
Does not push limits (13; 1.11)	Sulky or whiny (94; 1.12)
Not easily irritated (95; 1.10)	Not curious and exploring (40; 1.12)
German teacher sort, age 6	Not self-reliant, confident (88; 1.09)
Does not push limits (13; 1.72)	Not attentive (66; 1.08)
Considerate of peers (2; 1.21)	Not self-assertive (82; 1.05)
Can be trusted (76; 1.16)	*German teacher sort, age 6*
Obedient and compliant (62; 1.07)	No item differentiated groups
Dutch teacher sort, age 10	*Dutch teacher sort, age 10*
Doesn't show mannerisms (49; 1.30)	No item differentiated groups
Warm and responsive (3; 1.29)	*Dutch teacher sort, age 12*
Not easily offended (78; 1.17)	No item differentiated groups
Cheerful (75; 1.16)	*Dutch mother sort, age 10*
Dutch teacher sort, age 12	Takes advantage of others (20; 1.26)
Intelligent (68; 1.37)	Aggressive (85; 1.08)
Not emotionally labile (54; 1.24)	Inhibited and constricted (35; 1.07)
Competent, skillful (89; 1.18)	*Dutch mother sort, age 12*
High standards for self (47; 1.16)	Suspicious of others (79; 1.21)
Attentive (66; 1.09)	Not initiating of activities (36; 1.10)
Warm and responsive (3; 1.04)	
Dutch mother sort, age 10	
No item differentiated groups	
Dutch mother sort, age 12	
Interesting, arresting child (42; 1.21)	

Note. Reported are items that distinguish significantly ($p < .01$) between consistent and average children, or inconsistent and average children; item number in the original California Child Q-sort and effect size of the group difference in parentheses (in terms of $d = 2t/\sqrt{df}$).

In Table 3, age as well as observer effects can be found. In the German sample, both a high and a low consistency of the Q-sort pattern could be predicted from characteristics of the children at age 4. In the Dutch sample, descriptions given by the teacher did not differentiate between inconsistent and average children, as was the case in the German sample at age 6. This might explain why, for the 4- to 6-year-olds, the predictive power of ego resiliency was higher than its retrodictive power (see Table 2).

In general, all characteristics typical for consistent children were culturally desirable traits, whereas all characteristics of inconsistent children were undesirable ones. Inconsistent children were described at age 4 by their teachers as being emotionally unstable and easily distractible, and at ages 10 and 12 by their mothers as being suspicious, taking advantage of others, aggressive, inhibited, or not initiating activities. Consistent children were described by their teachers at ages 4, 6, and 10 as being more socially competent, for example, as more cooperative, attentive, and considerate of others. At age 12, consistent children were characterized by their teachers more in terms of intellectual aptitudes and skills.

DISCUSSION

This study probed the hypothesis that the temporal consistency of children's personality is related to their ego resiliency. Following a person-centered approach, the consistency of personality was conceived of as the temporal consistency of the organization of traits within one individual. This consistency varied strongly between different children. The expected positive correlation between ego resiliency and the consistency of personality was confirmed irrespective of variations in age and culture, whether parental or teacher judgments were analyzed, and whether consistency referred to the same judge at both assessments, or to different judges. Itemwise analyses revealed that if an item significantly distinguished consistent or inconsistent children from those with average consistency, consistent children were always characterized by culturally desirable traits, and inconsistent children always by undesirable ones (see J. Block, 1971, and Ozer & Gjerde, 1989, for similar findings).

Beyond this general finding, an inspection of the items that distinguished consistent and inconsistent children from average children did not reveal any particular personality traits that were constantly asso-

ciated with consistency or inconsistency. What could be observed at least for the teacher judgments, however, was a systematic age-related change in the content of the most discriminating items for consistent children. The typical characteristics of consistent children shifted from emotional stability and good peer relations in preschool and kinder-garten to intellectual capacities and skills in late childhood. This shift appears to reflect a major reorientation in the demands of the school setting between these age periods (particularly because the second as-sessment of the Dutch sample occurred when school achievements of the children were used for decisions on further education).

Such a reorientation of demands fits in with the notion of age-related changes in the culturally prescribed social life of children (see Higgins & Parsons, 1983). Somewhat more balanced in regard to the biological origins of age-related societal demands is the notion of developmen-tal tasks (Havighurst, 1952; Oerter, 1986). These are defined as life-adjustment tasks to be achieved by a growing person. According to Havighurst (1952), these tasks may stem both from age-related biologi-cal changes and from societal expectations. More recent accounts of de-velopmental tasks conceive them not as independent of the developing person, but rather as actively constructed both by the developing per-sons and by their interaction partners within a given cultural-historical context (see Kindermann & Skinner, 1988, 1991).

The data of the present study suggest that the temporal consistency of personality is related to the fit between specific behaviors and the developmental tasks for the given age. Therefore the temporal consis-tency of personality seems to refer to developmental changes in behav-iors that fit the requirements of a developmental task. In other words, consistency is related to the *age-appropriateness* of personality. Be-cause the developmental tasks change during development, consistent children are likely to display different competencies at different ages. Despite these changing relations between the consistency of personality and specific competencies, higher order aspects of competence such as ego resiliency or the age-appropriateness of personality appear to show stable relations with the temporal consistency of personality (see Waters & Sroufe, 1983, for the distinction between domain-specific competencies and the higher order construct of competence).

Because age-appropriateness of personality implies some change in the structure of personality, it may seem paradoxical that highly con-sistent children do indeed change according to the developmental tasks prescribed by nature and society. Theoretically children could exist who

do not change in their personality patterns at all; these children would be highly consistent (in fact, the correlation between their Q-sort profiles would equal 1), but they could not fulfill new developmental tasks because they would not have changed accordingly.

The data of the present study suggest that these children are very rare. Instead, maximal consistency (which was far from 1 for the 2-year periods) was found for children who changed in line with the change of major developmental tasks, from a focus on emotional stability and good peer relations to a focus on school achievement. Less change may be difficult to achieve because it would conflict with biological norms and cultural expectations of development, and such conflicts would in fact result in *more* personality change relative to one's age group. In a famous German novel, a child refused to grow physically after the age of 3 years and became a midget (Grass, 1959); becoming a midget in terms of personality may be even more difficult to accomplish.

Trying to explain consistency differences by differences in ego resiliency or age-appropriateness is not the whole story, though. Consistency in the present study always means consistency of the view important referent persons (parents, teachers) have. It is not unlikely that high consistency of their observations promotes ego resiliency because the social environment is more predictable. Van Aken and van Lieshout (1991) have indeed demonstrated that the consistency of Q-sort descriptions over time and across judges is a predictor of children's competence with peers. The fact that consistency between 10 and 12 years was related to ego resiliency as judged afterward supports such a hypothesis.

Finally, an important hidden variable may simultaneously increase consistency, ego resiliency, and the age-appropriateness of personality: the stability of the overall environment. Children who grow up in a generally stable, predictable environment may find it easier to adapt to particular changes in environmental demands. Consequently, they may act more resilient, may be more consistent in their personality, and may be better able to keep up with cultural expectations of what a good child of this age is like. Probably all these factors contribute to the relation between ego resiliency and the consistency of personality.

REFERENCES

Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Holt, Rinehart, & Winston.

Block, J. (1971). *Lives through time*. Berkeley: Bancroft Books.

Block, J. H., & Block, J. (1983). *Rationale and procedure for developing indices of ego-control and ego-resiliency.* Unpublished manuscript, University of California, Berkeley.

Block, J. H., & Block, J. (1980). The role of ego-control and ego-resiliency in the organization of behavior. In W. A. Collins (Ed.), *Minnesota symposium on child psychology* (Vol. 13, pp. 39–101). Hillsdale, NJ: Lawrence Erlbaum.

Bradley, J. V. (1968). *Distribution-free statistical tests.* Englewood Cliffs, NJ: Prentice Hall.

Conley, J. J. (1984). The hierarchy of consistency: A review and model of longitudinal findings on adult individual differences in intelligence, personality, and self-opinion. *Personality and Individual Differences, 5,* 11–25.

Göttert, R., & Asendorpf, J. (1989). Eine deutsche Version des California-Child-Q-Sort, Kurzform [A German short version of the California Child Q-set]. *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie, 21,* 70–82.

Grass, G. (1959). *Die Blechtrommel [The tin drum].* Neuwied, Germany: Luchterhand.

Hampson, S. E., Goldberg, L. R., & John, O. P. (1987). Category-breadth and social-desirability values for 573 personality terms. *European Journal of Personality, 1,* 241–258.

Havighurst, R. J. (1952). *Developmental tasks and education.* New York: David McKay.

Higgins, E. T., & Parsons, J. E. (1983). Social cognition and the social life of the child: Stages as subcultures. In E. T. Higgins, D. N. Ruble, & W. W. Hartup (Eds.), *Social cognition and social behavior: Developmental issues* (pp. 15–62). New York: Cambridge University Press.

Kindermann, T. A., & Skinner, E. A. (1988). Developmental tasks as organizers of children's ecologies. In J. Valsiner (Ed.), *Child development within culturally structured environments* (Vol. 2, pp. 66–105). Norwood, NJ: Ablex.

Kindermann, T. A., & Skinner, E. A. (1991). Modelling environmental development: Individual and contextual trajectories. In J. B. Asendorpf & J. Valsiner (Eds.), *Stability and change in development: Investigating methodological reasoning.* Newbury Park, CA: Sage.

Magnusson, D. (1988). *Individual development from an interactional perspective: A longitudinal study.* Hillsdale, NJ: Lawrence Erlbaum.

Moss, H. A., & Susman, E. J. (1980). Longitudinal study of personality development. In O. G. Brim, Jr., & J. Kagan (Eds.), *Constancy and change in human development* (pp. 530–595). Cambridge, MA: Harvard University Press.

Oerter, R. (1986). Developmental tasks through the life span: A new approach to an old concept. In P. B. Baltes, D. L. Featherman, & R. M. Lerner (Eds.), *Life-span development and behavior* (Vol. 7, pp. 233–269). Hillsdale, NJ: Lawrence Erlbaum.

Ozer, D. J., & Gjerde, P. F. (1989). Patterns of personality consistency and change from childhood through adolescence. *Journal of Personality, 57,* 483–507.

Plomin, R. (1986). *Development, genetics, and psychology.* Hillsdale, NJ: Lawrence Erlbaum.

Riksen-Walraven, J. M. A. (1978). Effects of caregiver on habituation rate and self-efficacy in infants. *International Journal of Behavioural Development, 1,* 105–130.

Scarr, S., & McCartney, K. (1983). How people make their own environments: A theory of genotype $\rightarrow$ environment effects. *Child Development, 54,* 424–435.

Snyder, M., & Ickes, W. (1985). Personality and social behavior. In G. Lindzey &

E. Aronson (Eds.), *Handbook of social psychology* (Vol. 2, pp. 883–947). New York: Random House.

van Aken, M. A. G., & van Lieshout, C. F. M. (1991). Children's competence and the agreement and stability of self- and child descriptions. *International Journal of Behavioural Development*, **14**, 83–99.

van Lieshout, C. F. M., Riksen-Walraven, J. M. A., ten Brink, P. W. M., Siebenheller, F. A., Mey, J. T. H., Koot, J. M., Janssen, A. W. H., & Cillessen, A. H. N. (1986). *Zelfstandigheidsontwikkeling in het basisonderwijs* [Competence development in elementary school]. Nijmegen, The Netherlands: ITS.

Waters, E., & Sroufe, L. A. (1983). Social competence as a developmental construct. *Developmental Review*, **3**, 79–97.

Weinert, F. E., & Schneider, W. (Eds.). (1989). *The Munich Longitudinal Study on the Genesis of Individual Competencies (LOGIC): No 6. Longitudinal findings for wave 1–3* (res. rep.). Munich, Germany: Max-Planck-Institut für psychologische Forschung.