Ego-control and ego-resiliency were evaluated in seven assessments conducted when subjects were 3, 4, 5, 7, 11, 14, and 18 years old. Ego-control refers to an individual's tendency to express or contain impulses, feelings, and desires. Ego-resiliency refers to the capacity to modify one's modal level of ego-control as a function of environmental context. In 106 high school seniors who were followed longitudinally, early correlates of later control and resiliency were identified. Information was also obtained from parents. For both sexes, there is ordering consistency of ego-control from nursery school through late adolescence. Resiliency in boys shows appreciable consistency from early childhood to age 18. For girls, there is a sliding transformation over the years; early resiliency does not relate to later resiliency. Undercontrol is foretold for girls by emotion-expressing, independence-encouraging, nontraditional parents, and for boys, by paternal impatience and disappointment, maternal self-centeredness, and family environments which are neither child-oriented nor child-supportive. Factors which foster relative under-control in girls foster the mastering of under-control in boys. Interactions of mothers and fathers with their daughters related strongly to later resiliency. Maternal encouragement, pleasure, and patience with 4-year-old daughters predicted resiliency. Resiliency in boys was foretold by similar maternal interactions and, in addition, paternal emphases on high standards and rationality in the context of a warm relationship. (RH)
Longitudinal Antecedents of Ego-Control and Ego-Resiliency in Late Adolescence

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Almost 2 decades ago, my late wife, Jeanne, and I initiated a longitudinal study of approximately 130 children who since have been assessed individually at ages 3, 4, 5, 7, 11, 14, and, most recently, at age 18. During each of the years of assessment, every child was administered an extensive battery of widely-ranging tests, questionnaires, interviews, and interactional procedures, involving an average of 10/12 testing hours at each age level. In addition, extensive assessment data were gathered on the parents of the subjects, on their child-rearing orientations, their interactional approaches to their children, and the nature of the environment they provided their children. There has been relatively little attrition of the subject sample over the years: 106 subjects were assessed in their senior year of high-school.

Within the larger context of what we planned as a broad-band longitudinal study, we placed special emphasis upon two constructs with which we had long been concerned--ego control and ego resiliency. Our reason for interest in the constructs of ego control and ego resiliency was that we believed these notions to carry, in more accessible and less confounded form, the essential qualities and functions of the psychoanalytic core concept of "ego." For all the richness, insight, and seriousness of psychoanalytic theory regarding the understanding of personality functioning, it has also been imprecise, overly facile with supposed explanations, and seemingly inaccessible scientifically.

In formulating the concepts of ego control and ego resiliency, our intention years ago was to respect and to encompass the phenomena that the notion of
"ego" was invoked to explain (i.e., motivational control and integrative, resourceful adaptation as enduring, structural aspects of personality) but with concepts less grandiose, more empirically specifiable, and certainly more explicitly generative. Toward this end, Lewinian theory seemed to us to be especially pertinent.

In Lewin's model of the person, interposed between his need system (where motivations emanate) and his sensori-motor system (where contexts register and behaviors are forged), there was a boundary system logically positioned, we believed, to have ego functions. In formulating the properties of boundaries, Lewin posited two boundary characteristics that we saw as coordinate with two broad aspects of ego functioning we separately had conceptualized.

The first property of boundaries posited by Lewin, degree of permeability, refers to the boundary's capacity to contain or to fail to contain psychological motivations, needs, tensions, or forces. Lewin suggested that permeability could be assessed by the degree of communication obtaining between systems. Relatively permeable boundaries would permit neighboring systems to mutually influence each other. Relatively impermeable boundaries would limit the "spillage" from one system to another. Excessively impermeable boundaries would result in isolation or compartmentalization of psychological sub-systems. The generative implications of the permeability property of boundaries are numerous and, given the behavioral implications of differences in the degree of boundary permeability, it seemed to us that the permeability property could be coordinated with the psychoanalytic notion of impulse control. By so doing, the deductive possibilities of the Lewinian model could be brought to bear on a central aspect of ego functioning which we termed...
ego-control. The concept of ego-control refers to the threshold of an individual with regard to the expression or containment of impulses, feelings, and desires. Ego-undercontrollers are comparatively spontaneous, unable to delay gratification, and impulsive. Ego-overcontrollers are relatively constrained, rigid, and delay gratification unduly. We then went on to develop predictions about the influence of ego-control on behaviors in the personality, social, and cognitive realms, predictions that have been tested in cross-sectional studies over the years as well as in a longitudinal study.

The second property of boundaries posited by Lewin, boundary elasticity, refers to the capacity of a boundary to change its characteristic level of permeability--impermeability depending upon impinging psychological forces or stresses and to return to its original modal level of permeability after the temporary, accommodation-requiring influence is no longer pressing. Lewin's boundary elasticity seemed to us to coordinate with our construct of ego resiliency defined as the dynamic capacity of an individual to modify his/her modal level of ego control--in either direction--as a function of the demand characteristics of the immediate environmental context. Degree of boundary elasticity, or ego resiliency, has implication for the individual's adaptive capabilities under conditions of environmental stress, uncertainty, conflict, or disequilibrium. Ego-resilient persons are able to adapt resourcefully to changing circumstances or environmental contingencies; ego-unresilient persons have little adaptive flexibility, and tend to perseverate or fall apart when under stress. The adaptive organizing aspects of psychoanalytic ego functioning, it seemed to us could be subsumed under the concept of ego resiliency. And again, we developed and tested implications of ego resiliency for
behaviors in a variety of psychological realms, and longitudinally as well.

Much more can and should be said about these constructs, and how they relate to other cognate concepts. This is not the time or place to do so but I will declare our belief that in the ultimate theory of personality, constructs akin to ego-control and ego-resiliency will have a central place.

A proper developmental study of ego control and ego resiliency requires tracking these concepts from early childhood through adolescence when the psychological resources of the individual are stressed. During adolescence, internal maturational and psychological changes in conjunction with different social demands and expectations require a restructuring of the individual's earlier evolved understandings, premises, and self-perceptions. The constructs of ego control and ego resiliency seemed to us to be of encompassing and integrational importance for understanding the ways in which adolescents will negotiate the many developmental tasks looming large during this period.

Having completed assessments of our longitudinally-followed subjects during middle and late adolescence, it has now become possible to trace the development of ego control and ego resiliency from the early, formative preschool years through middle childhood and early adolescence and into late adolescence, a time when, for many, character often is largely set, examining along the way the behavioral implications for personality and cognitive functioning of these constructs.

Focusing upon the evaluations of our 106 subjects, assessed as late adolescents completing high school, we have identified many early personality, parental, and environmental characteristics foretelling later ego control and ego resiliency. Only a sample of our findings will be presented here today.
Before turning to some results, let me briefly describe how we operationalized ego control and ego resiliency. During each assessment, each subject was independently described by a number of psychologists, using a Q-sort consisting of 100 widely ranging statements about the subject's personality, cognitive, and social characteristics. These several, usually about 4, independent descriptions were then averaged, to develop a more reliable composite. Entirely different sets of psychologist-observers described the subject at each assessment period. For many reasons including abundant empiricism, we consider these pooled, well-based observer descriptions of each subject at each time period to have good validity as characterizations of the subject's personality at each interval. There has been some controversy regarding the usefulness of observer data in past years. I do not see how serious evaluators of the available data can continue to maintain this view.

To index the constructs of ego control and ego resiliency for each subject, at each assessment age the composite Q-description of the subject was aligned with a criterion or prototype definition of ego-control and ego-resiliency expressed in terms of the Q-sort. Separately, the personality characteristics considered to be associated with the construct of ego control or, alternatively, the construct of ego resiliency had been specified by a number of psychologists familiar with the constructs. They used the same Q sets to describe, independently, a prototypical undercontroller and a prototypical ego resilient child or adolescent. The criterion definers showed high levels of agreement, the reliabilities of the composite criterion definitions being in the nineties. Then, to create an undercontrol or ego resiliency score for a subject, the composited Q description of the subject was
correlated with the undercontrol and ego resiliency prototypes. The congruence (i.e., correlation) between a subject's Q description by teachers or psychologist examiners and a prototype was taken as a score indexing the similarity between the subject's personality and the construct. A high correlation meant that the subject was similar or close to the prototypical definition (i.e., undercontrolled or resilient); a low or negative correlation meant that the subject was dissimilar or far from the prototypical definition (i.e., overcontrolled or brittle). Prototype-referencing scores were developed for each assessment period, for ages 3, 4, 7, 11, 14, and 18. I call your attention again to the complete independence of measurement between the assessment periods.

A first, obvious, and important question is the extent of ordering consistency, over time, for ego control and ego resilience. Do children tend to maintain their relative placement on these dimensions from age 3 through age 18? There are many developmental reasons why we should not expect appreciable ordering consistency over significant periods of time. It is also more interesting to study change if we can identity the factors prompting change. Nevertheless, as an important baseline for understanding, the extent of order consistency is important to establish. There have been relatively little data on such issues and, indeed, at the time we initiated our longitudinal study in 1968, I believe it is fair to say the received opinion in developmental psychology was that, empirically, there was little or no implication of early behavior or early experience for later behavior (a positive conclusion based upon an absence of evidence for the enduringness of personality dispositions).
What are our findings regarding the ordering consistency of ego-control? In the sample of boys, the correlations of undercontrol from one age to another range from .82 to .26, the mean correlation being .52. In the sample of girls, the correlations of undercontrol from one age to another range from .72 to .22, the mean correlation being .51. Although of course the correlations between adjacent time periods tend to be higher than those between more separated assessments, we find correlations of .42 between preschool undercontrol and undercontrol at age 18 for both boys and girls. All of these correlations are lowered by and are uncorrected for attenuation; if reasonable allowance is made for the imprecision of measurement, these figures would become appreciably higher.

To particularize these results, to a statistically significant degree, undercontrolling 18-year-old male adolescents tended to be characterized by their nursery school teachers 15 years earlier as having transient interpersonal relationships, as emotionally labile, as trying to take advantage of others, as trying to be the center of attention, as stretching limits, as attempting to transfer blame to others, as over-reactive to minor frustrations, as not shy or reserved, as unreasonable, as not helpful or cooperative, as not planful, as not trustable, among many significant relationships. Undercontrolling 18-year-old female adolescents tended to be described 15 years earlier as attempting to transfer blame to others, as stubborn, as neither obedient or compliant, as not helpful or cooperative, as stretching of limits, as not giving or sharing with others, as not neat or orderly, as expressing negative feelings directly, as not trustable, as not eager to please, among other significant relationships. These are coherent
constellations of personality attributes, identifiable by the nursery school years, of long-term and widely-ranging implications, e.g., drug usage.

What are our findings regarding the ordering consistency of ego-resiliency? In the sample of boys, the uncorrected correlations of resiliency from one age to another range from .65 to .23, the mean correlation being .47. Preschool resiliency correlates .47 with resiliency at age 18. In the sample of girls, however, the correlations of resiliency from one age to another vary widely and range from .66 to -.28, the (irrelevant) average being .24. For girls, ego resiliency at adjacent ages correlates well and even highly: thus, the correlation between resiliency at ages 3 and 4 is .68, between ages 4 and 7 is .38, between ages 7 and 11 is .37, between ages 11 and 14 is .58, and between ages 14 and 18 is again .58. But in girls, however, there has been a sliding transformation over the years: resiliency in early childhood (ages 3 and 4) does not correlate with resiliency in late adolescence (age 18), the correlations being -.06 and -.23. Within the period of childhood and, separately, within the period of adolescence, relative resiliency seems consistent. But across these developmental periods, we find no ordering consistency. Although one can foretell the late adolescence resiliency of boys from our childhood data, one cannot do so for girls. There is a more simple, straightforward predictability in boys than in girls with respect to this construct. I also note that while, in boys, undercontrol and resiliency remain essentially unrelated at age 18 (r = -.11), in girls by this age undercontrol has become linked, positively, with concurrent ego resiliency (r = .37). This linkage in girls of (relative) undercontrol with resiliency I believe to have appreciable import; I conjecture this connection may have a secular basis in
the rise of feminism and its encouragement of developing girls to leave their envelopes of security and also restriction.

To particularize these results, to a statistically significant degree, resilient 18-year-old male adolescents tended to be characterized by their nursery school teachers 15 years earlier as competent and skillful, as having a high intellectual capacity, as having high standards for self, as attentive and resourceful, as seeking to be independent, as having concern with moral issues, and as cheerful--just to mention a few of the many significant relationships. These boys were, moreover, also seen as less restless and fidgety, as less likely to be victimized by other children, as less jealous, less competitive, as less likely to have transient interpersonal relationships, as less likely to stretch situational limits, as less competitive, as less likely to imitate, and as less likely to feel unworthy. In sum, a coherent constellation of elements denoting ego-resiliency is clearly visible in boys 15 years before the evaluations of ego resiliency obtained in late adolescence. Over this time span, of course, there are no results to report for girls. If one presumes, and it is fair on many grounds I believe to make this presumption, that our evaluation procedures were equivalently reliable and valid for the two sexes, then the dearth of long-term antecedents of resiliency in the sample of girls is a conspicuous and psychologically implicative absence.

Gender differences are also apparent in the relationships observed between ego resiliency and intelligence measured by the Wechsler at ages 4, 11, and 18. Preschool intelligence does not predict ego resiliency in late adolescence for either sex. WISC-measured IQ at age 11 foreshadows ego resiliency 7 years later in boys but not for girls. Resiliency at age 18 and
concurrent IQ are positively related for both sexes. Thus, in boys, personality characterizations obtained in early childhood and obtained in early adolescence are stronger predictors of ego resiliency in late adolescence than are time-correspondent evaluations of intelligence. I note in passing that other analyses reveal some important even fascinating differences between pure resiliency and pure IQ.

I turn now to the parental antecedents of ego control and ego resiliency in late adolescence. Parental child-rearing orientations and interactive approaches were assessed when the child was in preschool. When the children were 3 years old, mothers and, separately, fathers, described their child-rearing values using the 91-item Child-rearing Practices Report (CRPR). The CRPR was developed to tap both common and uncommon child-rearing dimensions. When the children were 4-year-olds, mother-child pairs and, separately, father-child pairs were assessed in a standardized experimental situation in which each parent taught a battery of 4 cognitive tasks to her or his child. Parallel test batteries were constructed for use by the parents. The sessions were videotaped and a 49-item Q-sort was used by independent observers to describe the parent-child interactions with particular emphasis on the teaching approaches of the parent. Finally, when the children were age 6, an interviewer visited their homes and used that occasion to evaluate the nature of the child's family context using an Environmental Q-set.

Early parental values and behaviors significantly relate to undercontrol in the child at age 18 in both sexes but in fundamentally different ways for boys and girls. Thus, on the CRPR, the mother of the subsequently undercontrolled adolescent boy early on indicates she does not allow her son to become
angry with her, chooses physical punishment as her disciplinary method, and tends not to encourage her son to be curious or exploratory. In the interactive teaching situation, she is perceived by observers as significantly more competitive with her son, as hostile, as dramatizing of her teaching, as talkative, as discouraging her son from proceeding independently and as not having a good working relationship with her son. The interviewer-observer evaluating the home environments independently rated these mothers as emphasizing power, status and materiality, as discouraging of the sons’ independence and maturity, as not providing a child-oriented home, and as placing the child in a starkly structured home environment. The father of the boy undercontrolled at age 18 indicates on the CRPR he does not find time spent with his son to be interesting, does not mind if his son has secrets from his parents, allows his son to tease and trick others, allows his son to be different from others, and does not emphasize having a quiet and docile son. In the interactive teaching situation, he is perceived by observers as significantly more impatient with his son, as not enjoying the role of teacher, as not conversing with his son, as giving up and retreating from difficulties in the teaching situation, as lacking pride in his son, as unsupportive, as pacing the situation faster. Overall, this is a son-rearing environment that continually confronts the developing boy with perverse parental power and implied deprecation.

In high contrast, the mother of the subsequently undercontrolled adolescent girl during her daughter’s preschool years indicates via the CRPR that she is emotionally frank, shows rather than hides anger with her daughter when it arises and also allows her daughter to be angry with her, favors delayed
weaning, does not believe too much tender loving care can harm or weaken a child, encourages her daughter to muse about the nature of life, is unworried about the daughter's interest in sexual matters, and does not seek conformance of her daughter with her peers. In the interactive teaching situation, this kind of mother was independently evaluated as significantly more spontaneous with her daughter, as supportive, as making the situation fun rather than grim, as relatively unemphasizing of the daughter's performance per se, as encouraging her daughter to proceed independently, as not hostile. The home atmosphere, as expressed via the Environmental Q-sort, was congenial and informal, with manners and propriety not being stressed. The family policy and philosophy tended to be untraditional. The father of the girl uncontrolled at age 18 indicated via the CRPR that he showed affection to his daughter by hugging and kissing her, believed that praising good behavior was better than punishing bad behavior, let his daughter know he appreciated her accomplishments, was relaxed and permissive regarding the sexual curiosity of his daughter, favored long and intensive nurturing of his daughter, encouraged her independence but did not wish her to become competitive, let his child know when he was angry with her but also was not guilt inducing. There were no significant correlates of the fathers' behavior in the interactive teaching situation. Overall, these various findings seem to define a daughter-rearing environment that is affectively warm and supportive and thus encouraging of the developing girl's sense of self and her efforts to engage her world.

Early parental data also relate to ego resiliency at age 18, and in both genders. In the sample of boys, resilience in late adolescence is associated during their preschool years with paternal child-rearing orientations that
encouraged emotional expression as well as a willingness by the father to take the son's preferences into account when making plans for the future. These fathers also found great satisfaction in their sons. Mothers of ego resilient sons tend not to be overinvolved with them; for example, they liked to have time away from their sons, and the sons were expected to handle their own problems. As with the fathers, this attitude is combined with one of acceptance of, and satisfaction with, their sons. When parental interactive styles were assessed in the teaching situation, the significant relationships observed with ego resiliency 14 years later derived primarily from the mothers. The mothers, in interacting with sons subsequently evaluated as ego resilient, displayed a good working relationship, emphasis upon independence of their sons, an easy, relaxed manner, absence of a competitive attitude, and an ability to derive pleasure from being in the company of the son.

The fathers of girls assessed 14 years later as ego resilient manifest a pattern of child-rearing orientations with their 4-year old daughters that combines an absence of overprotection, an emphasis on risk-taking and independence, and a free expression of feelings, both positive and negative. Some of the same emphases characterize the mothers of daughters subsequently evaluated 14 years later as ego resilient, although the significant correlates are fewer than for fathers. Mothers of girls subsequently judged as ego resilient were evaluated during their daughter's preschool years as supportive, responsive, and relaxed; they encouraged their daughters to proceed independently, and did not pressure them to work on the tasks, nor were they overly interested in the daughter's performance. Both mother and daughter seemed to enjoy the situation and each other's company. Note that the teaching approaches of mothers
relate to resiliency 14 years later in their daughters although the early personality characteristics of these daughters do not relate to this later resiliency. This finding perhaps suggests that maternal parenting of a certain kind gradually may shape or influence a girl to be resilient.

Final Remarks.

To sum up, with respect to ego-control, in both sexes, there is appreciable ordering consistency from the nursery school years through late adolescence. With respect to ego-resiliency, for boys, there is appreciable ordering consistency from early childhood to age 18. For girls, however, the picture is different. Ego resiliency indices at adjacent ages correlate well with each other and even highly. But, in girls, there has been a gradual change over the years: resiliency in early childhood does not relate to resiliency in late adolescence.

Under-control in girls by age 17/18 emerges as related, positively, with concurrent ego resiliency while in boys under-control and resiliency remain essentially unrelated. In girls, undercontrol is foretold by emotion-expressing, independence-encouraging non-traditional fathers and mothers as manifested by early parent child-rearing orientations, videotapes of parent-child interactions when the child was 4 years old, and home observations. In boys, under-control at 18 is foretold by paternal impatience and disappointment with sons in nursery school, with maternal self-centeredness, and family environments neither child-oriented nor child-supportive. Of especial interest are the striking differences between what fosters (relative) under-control in girls and what fosters under-control in boys.
Ego-resiliency in girls at age 17/18 is not foretold by parent child-rearing orientations or by home evaluations. However, videotapes of mothers and fathers interacting with their daughters related strongly to resiliency in late adolescence. Observed maternal encouragement, pleasure and patience with 4 year old daughters together with an emphasis on independence and an absence of parental overprotection predicts resiliency much later. In boys, ego-resiliency is foretold by similar maternal interactional antecedents and, in addition, by paternal emphases on high standards and rationality in the context of a warm relationship.

We find impressive gender differences in the developmental antecedents of both ego control and ego resiliency. In our longitudinal study, we have observed such gender differences time again. We are frankly puzzled by the relative absence in the female sample of preschool personality correlates of later ego resiliency although parental interactions during the preschool years do relate to subsequent resiliency. Taken together with the many early personality correlates of resiliency for the boys, these findings suggest the presence of a more general, and quite fundamental sex difference in psychodynamic organization and in influenceability by the environment. We have other indications from our longitudinal study that girls relative to boys, may undergo more substantial changes in their personality structure and environmental orientation as they approach or pass through early adolescence. To heuristically oversimplify, it is as if girls are affected developmentally by exogenous, social factors while boys are more influenced by endogenous, temperamental influences. More detailed and complex analyses are needed to address these issues. It is on such analyses we will be concentrating our efforts in the near future.