

ATYPICAL GENDER DEVELOPMENT AND
PSYCHOSOCIAL ADJUSTMENTGEORGE A. REKERS¹

UNIVERSITY OF FLORIDA

A 5-yr-old boy with pronounced sex-role inflexibility and stereotypic extremes in gender behavior was behaviorally treated by Rekers and Lovaas (1974). Winkler (1977) criticized Rekers and Lovaas for selecting certain feminine sex-typed target behaviors for intervention,² but he presented neither empiri-

cal evidence nor a methodology for translating such evidence into a value judgement to select target responses. Winkler simply accused Rekers and Lovaas of not attending to the research by Bem (1975). However, Bem's research did not report on cross-gender identified boys, and hence is not directly applicable to our target behaviors. Indirectly, however, Bem's research (published *subsequent* to our study) would support our objective of attempting to treat sex-role rigidity (extreme feminine behavior in boys) because her findings suggest that rigid femininity has negative correlates. Winkler (1977, p. 550) challenged our treatment of the rigid femininity of a male subject, and curiously substantiated his view by quoting Bem: "A high level of sex-typing may not be desirable. For example, high femininity in females has consistently been correlated with high anxiety, low self-esteem and low social acceptance." Since Winkler concurs with Bem that high femininity in *females* is not an optimal characteristic, why does he fail to continue the logic of this argument to demonstrate that high femininity in *males* would be at least equally problematic? Similarly, Nordyke, Baer, Etzel, and LeBlanc (1977, p. 556) indicated that many individuals, including apparently the authors, would be very concerned if a young girl swished into a room and demonstrated the kind of profound feminine identification described by Rekers and Lovaas in the boy they treated. Since they consider this to be a problem for a young girl, why do they not consider it to be at least as much a problem for a young boy?

If values regarding desirability of certain

Editor's Note: This article was invited by the Editor as a response to the preceding articles, "What types of sex-role behavior should behavior modifiers promote?" by R. C. Winkler, and "Implications of the stereotyping and modification of sex role", by Nancy S. Nordyke, Donald M. Baer, Barbara C. Etzel, and Judith M. LeBlanc. —W.S.A.

¹This article was supported by United States Public Health Service research grant #MH-28240 to G. A. Rekers from the National Institute of Mental Health. The author benefited from lengthy discussions with O. Ivar Lovaas, Peter M. Bentler, and Alexander C. Rosen regarding these issues in general and the critiques by Winkler and Nordyke *et al.* in particular. The positions taken in this article, however, are the responsibility of the author only. Appreciation is expressed to Jan Garoutte and Kathy McCormick who assisted in the preparation of the manuscript. Reprints may be obtained from G. A. Rekers, Department of Psychiatry, University of Florida College of Medicine, Box J-256, J.H.M.H.C., Gainesville, Florida 32610.

²Winkler (1977) alleged that this investigation was subject to an underlying assumption "that traditional sex-roles are 'natural' rather than questioning whether these sex-roles will permit maximal development of individual potential" (p. 550). This accusation was evidently based on misunderstanding, since our precise thrust questioned whether rigidly feminine sex-role behaviors in a boy would permit his optimal development. Furthermore, we did not consider traditional sex-roles to be "natural" since we explicitly subscribed to the social learning framework that views behavior (including sex-role behavior) to be a product of environmental contingencies, particularly social ones.

sex-role behavior patterns were empirically based (as Winkler proposed), would we not prefer heterosexual behavior as opposed to homosexual behavior, since Kinsey, Pomeroy, and Martin (1948) reported that a significantly larger percentage of men prefer women as sex mates than men as sex mates? Should parents withhold intervention for a child's cheating behavior if an empirical study discovered 51% of the adult population is dishonest and suffers no resultant unhappiness? Obviously, it is an epistemological error to base value decisions on empirical data alone. For example, parents may reject dishonesty or homosexual behavior as wrong on moral grounds, regardless of what percentage of the population happily engages in those behaviors.

Winkler (and Nordyke *et al.* as well) made the basic assumption that traditional social values regarding sex-typing have changed. However, this assumption is not supported by any empirical evidence; instead, these critics simply made oblique reference to abstract groups, such as feminists and homosexuals. Since these two papers put so much weight on that assumption, it was surprising that they failed to present any positive evidence whatsoever that the values of society are indeed changing in such a direction that most parents, if given a choice, would consider it desirable to foster homosexuality, transsexualism, or transvestism in their child. Although Winkler, as well as Nordyke and her colleagues, questioned the literature (cited by Rekers and Lovaas) that indicates the poor prognostic outcome for the gender-identity disturbed boy, they failed to present any evidence to buttress their unvalidated assumptions that (1) society has changed to the extent that treatment for compulsive feminine behavior in boys is inappropriate and that all traditional sex-role behavior is maladaptive, and (2) that it would be superior to tell a cross-gender identified boy to adjust to a possible future society in which his cross-gender identification would be accepted with a kind of tolerance unknown to present-day society.

THE RATIONALE FOR SEX-ROLE BEHAVIOR CHANGE

Rekers and Lovaas (1974, pp. 174-175) presented "four related reasons" for treating a boy with a cross-gender identity. Numerous articles have provided similar rationale for the treatment of gender disturbances of boys, along with the clinical and research documentation for such a position (Bates, Skilbeck, Smith, and Bentler, 1974; Bentler, 1968; Green, 1967, 1968, 1974, Note 1; Green and Money, 1961, 1969; Green, Newman, and Stoller, 1972; Myrick, 1970; Rekers, 1972; Rekers, Bentler, Rosen, and Lovaas, 1978; Rosen, Rekers, and Bentler, 1978; Rosen, Rekers, and Friar, 1977; Rosen and Teague, 1974; Stoller, 1968, 1970; Zuger, 1966). The four reasons detailed in the Rekers and Lovaas article may be briefly summarized as (1) to relieve the boy's current maladjustment, social isolation, and personal suffering, (2) to prevent the severe psychological and social maladjustment problems in adulthood that accompany the transsexualism for which the boy is at high risk, (3) to prevent transsexualism, transvestism, or homosexuality *per se* as the most probable adulthood diagnostic outcome in the absence of treatment, and (4) to respond to the parents' legitimate request for professional intervention. Let us review each of these originally presented reasons for treatment in the context of the criticisms by Winkler and by Nordyke and her colleagues.

Intervention for Current Psychosocial Maladjustment

The gender-disturbed boy is rigid in his strong inhibition for masculine activities and in regard to his compulsive performance of feminine behaviors, which evoke punishment from the peer group (Green, 1974; Green and Money, 1961, 1969; Rekers, Lovaas, and Low, 1974; Stoller, 1968, 1970). This near obsession with feminine sex-typed behavior stands in marked contrast to the behavioral flexibility that we have systematically observed in normal boys and girls in

controlled play settings (Bates and Bentler, 1973; Rekers and Yates, 1976; Rekers, Amaro-Plotkin, and Low, 1977). Extreme cross-gender behaviors elicit social ostracism and ridicule from the peer group, which provides one source of the depression, frustration, and negativistic behavior observed in the cross-gender identified boy (Bates, Bentler, and Thompson, 1973; Bates, Skilbeck, Smith, and Bentler, 1974). Although the peer group's intolerance and rejection is morally wrong, the most benevolent and direct strategy is to change the child's individual behavior to alleviate his suffering. Winkler omitted this first reason in summarizing our rationale for treatment, but this goal alone would have justified intervention. The most adaptive psychological state appears to be the one in which the essential (biologically mandated and socially defined) distinctions between the male and female roles are mastered by the child. Beyond that point, there should be sex-role flexibility.

Nordyke and her colleagues strongly implied that we had no objective evidence for the boy's "suffering", that we failed to define all dimensions and effects of our treatment programs to the family, and that we failed to use "extreme caution" before initiating treatment. We deny all three accusations. Our article was not written, either in terms of length or in scope, to provide (1) extensive data on the quality and quantity of suffering and unhappiness in a cross-gender identified boy, (2) the detailed procedures we used to obtain proper consent and to brief the parents on "all relevant dimensions of service programs as well as their short-term and long-range effects" (as they quote Davison and Stuart, 1975, p. 760), or (3) evidence of the length of time that we spent in reviewing the literature, consulting with other experts in the professional community, providing lengthy and detailed written rationale to the University Human Subjects Protection Committee, and to the National Institute of Mental Health. It is unfair of Nordyke and her colleagues to assume we failed at these points merely because such

evidence was not included in one brief 18-page research report.

Nordyke and her colleagues rejected our argument for treating a cross-gender identified boy for his concurrent social maladjustment by drawing the analogy that a prefeminist or pre-pacifistic child should not be treated for social distress. Their analogy breaks down at the critical point, however; "feminism" and "pacifism" *per se* are not mental disorders, whereas homosexuality (at the time of our treatment study), transvestism, and transsexualism have been classified as mental disorders (American Psychiatric Association, 1968). When it is a function of a nonclinical entity, then experienced social distress alone might not provide a reason to intervene on that condition. We agree that "not every social pressure . . . need be taken to define deviancy which thereby needs treatment" (Nordyke *et al.*, 1977, p. 554, but it *can* be taken as such, depending on whether the behavior represents an accepted mental disorder (*e.g.*, transvestism and cross-gender identity) or a non-clinical condition (*e.g.*, pacifism).

Intervention to Prevent Future Psychosocial Maladjustment Associated with Transsexualism

Not only does the child experience severe adjustment difficulties in the present, but all available evidence indicates that he is at high risk for even more serious maladjustment in the future. Again, Winkler omitted our second reason for intervening for a gender-disturbed boy in his summary of our rationale. On the other hand, Nordyke and her colleagues took issue with our second reason for treatment, but missed our point that we judged the boy to be *high risk* for transsexualism. We did not state or imply the straw-man inference criticized by Nordyke "that all such men have the problems reported in the psychiatric case studies" (Nordyke *et al.*, 1977, p. 554. We only formulated "our best *prediction* based on the literature" (Rekers and Lovaas, 1974, p. 174) available.

*Intervention to Prevent
Future Sexual Deviance*

With the single exception of the intrasubject study reported by Barlow, Reynolds, and Agras (1973), all attempts to reverse the gender identity of adolescent and adult transsexuals have failed (Baker, 1969; Baker and Green, 1970; Benjamin, 1969; Green, 1974; Green and Money, 1969; Pauly, 1969; Randell, 1970). A cautious examination of the available prospective data (on gender-disturbed children, followed longitudinally into adolescence and early adulthood) as well as the retrospective data (reports by adult sexual deviants regarding their childhood and developmental history) consistently indicates that physically normal young boys who manifest predominantly feminine gender behavior and cross-gender identity are at high risk for later sexual adjustment problems, such as transsexualism, transvestism, and homosexual-orientation disturbance (Bakwin, 1968; Bentler, 1976; Green, 1974; Green and Money, 1969; Lebovitz, 1972; Stoller, 1968, 1970; Zuger, 1966). Unfortunately, the research does not yet allow us to make a differential prediction of transsexualism, transvestism, or homosexuality based on childhood precursors, but the overall pattern of cross-gender identity disturbance in childhood has been found to be predictive of at least one of those adulthood sexual maladjustments. In this context, Rekers and Lovaas (1974, p. 175) stated the third reason for treating a cross-gender identified boy: "Intervention on deviant sex-role development in childhood may be the only effective manner of treating (*i.e.*, preventing) serious forms of sexual deviance in adulthood."

One might draw the inference from the papers by Winkler and Nordyke *et al.* that transsexualism, transvestism, and homosexual-orientation disturbances are deviant or undesirable only in the eyes of a skewed society with distorted and antiquated social standards. But we strongly reject that position, if that is indeed what our critics are suggesting. It is clearly de-

viant for a boy to state repeatedly that he can bear children and to wear maternity clothes compulsively. It is pathological for a person to state that his genitals are not rightfully his property, thereby requesting that they be surgically altered. A boy's request for a penectomy (typical of many cross-gender identified boys) is not legally an elective surgical procedure, as is the cosmetic removal of a wart. If a parent requests that the boy's compulsive transvestic behavior be eliminated, it is appropriate for the psychologist to cooperate with that objective. If a parent asks a psychologist to help prevent the possibility of homosexual development, this is an ethically and professionally proper goal for the psychologist. These positions are in accordance with the Statement of Ethical Standards published by the American Psychological Association, which mandate that the psychologist be sensitive to the social codes of the community surrounding the individual and to the prevailing moral standards (see our detailed reasoning in Rosen, Rekers, and Bentler, 1978).

Winkler (p. 550) insists that before the goal of preventing future sexual deviancy be accepted, clear predictive evidence must be available and that the conditions of transsexualism, transvestism, and homosexuality be shown to be "cause for therapy". Winkler criticized our goal to prevent adult homosexual deviance on the basis of a possibility that childhood sex-role deviance may eventuate in nondeviant adulthood adjustment. But all the available evidence predicts adult sexual maladjustment. Winkler fails to cite any evidence to the contrary, admitting (curiously) that "there is no evidence as to how many children with early cross-gender behavior did *not* continue into adulthood to become transsexuals, transvestites, or homosexuals" (p. 550). Nordyke and her colleagues (as well as Winkler) suggest that the literature on later adult problems of gender-disturbed children is merely retrospective clinical information, which should not be used in clinical decision-making. From a purely methodological standpoint, strict causation cannot be inferred from clinical retro-

spective data, but the presence of some prospective data (which we cited above) lends additional support to the assumption that childhood gender disturbance leads to adulthood gender disturbance. It should be pointed out, however, that the Rekers and Lovaas research report was not an investigation of the long-term consequence of early childhood gender disturbance, and the lack of absolute proof of outcome did not have relevance to our decision for treatment. Based on all the data that existed, we formulated the best prognosis possible. Winkler, and Nordyke and her colleagues, have not presented any evidence that the more typical path for extreme childhood gender disturbances is spontaneous remission, and yet they somehow conclude that it would have been superior for us not to have intervened for the child. Responsible clinical decision-making cannot be based exclusively on strict scientific data, particularly in areas in which hard data are not available. In fact, contrary to what Winkler asserts, intervention can be based on belief and value judgments, particularly in the absence of any evidence that any alternative hypothesis has a higher basic probability.

Nordyke and her colleagues dismiss our third reason for intervention by simply noting their interpretation that our third reason is based on the assumption of preventing future unhappiness. Merely to point out this underlying assumption does not provide basis for rejecting our rationale. We cited evidence supporting our hypothesis, but Nordyke provided no evidence to the contrary. Even to imply that our assumption is probabilistic does not provide a basis to reject it. Instead, if they reject our reason, they should provide evidence that our assumption of future unhappiness is *less* probable than their assumption of the opposite position. Furthermore, we did *not* state that the prevention of transsexualism, transvestism, and homosexuality is based solely on the assumption that they produce unhappiness. A parent could legitimately request the prevention of homosexual behavior, for example, on the basis that it is morally

wrong, even if it were possible for the child to develop as a contented homosexual.

Intervention as a Response to a Parental Request

Nordyke and her colleagues criticized our fourth reason for treatment by isolating it from our other "related reasons": If a therapist takes *only* this point into consideration, then the therapist has become the parents' agent" (Nordyke *et al.*, 1977, p. 554 italics added). This is a vacuous argument because we obviously did *not* propose this reason in the absence of other reasons. In contrast, Winkler approaches this issue in a more sophisticated manner by indicating that the study by Rekers and Lovaas raises a question we might ask of any child behavior-modification effort: "To whom does the therapist owe his first allegiance: to the client (or in this case, the client's parents), to the therapist's own values, or to prevailing relevant social norms?" (p. 549). We answer that the most responsible clinical decision must take into account data from all these sources. The complaint of the parents regarding the child's behavior must be seriously considered because the parent is the primary legal agent responsible for the well-being of the child.

When the boy's parents came to us for help in 1970, they requested treatment for Kraig because of his current unhappiness, and they strongly desired professional intervention to prevent an outcome of transsexualism, transvestism, or homosexuality, which they feared. While there was no logical reason to refuse cooperation with the parents, there was every possible reason to intervene: (1) The boy was unhappy in his present state and was cooperative with the psychologists. (2) We determined that the parents sincerely had the best interests of the child in mind. (3) The only evidence available concurred with the parents' fears as to potential adult outcome. There was no contrary evidence. (4) Transsexualism, transvestism, and homosexuality were all accepted as mental disorders by the psychiatric and psychological professions,

and their treatment and prevention were accepted as legitimate clinical goals. (5) The laws of the state of California defined homosexual behavior as criminal, and attempts at potential prevention would be legally appropriate. (6) The goals of the parents were consistent with the broader social codes and the moral expectations of the community in which they resided. (7) The intervention goals were consistent with the Christian ethical value system (see Evans, 1975) held in common by the parents and the therapist, Rekers. (8) The parents served as the therapists (advised by the psychologists) and carried out benign procedures legally appropriate for parent-child relationships.

In his book, *Legal Challenges to Behavior Modification*, attorney Reed Martin (1975) observed: "Even though capacity is presumably lacking in children, there is a current trend to secure their 'consent' when they are to be involved. This does not really alter anything from a legal standpoint, nor does it preclude the necessity for parental consent, but it seems to have a valuable therapeutic basis and seems admirable from a human viewpoint" (p. 28). There are three conceptually distinct and yet equally necessary conditions for morally and legally proper consent: information, competence, and voluntariness (see Martin, 1975; Murphy, Note 2). Although the boy we treated may have been able to give *voluntary* consent, it was not possible for him to give *informed* or *competent* consent. The 5-yr-old boy that Rekers and Lovaas treated did not have the legal competence to commit himself for any kind of treatment, and he was not intellectually capable of comprehending the full significance of the intervention process that would have been necessary for him to make an understanding, enlightened decision regarding consent. The legal consent requirement is disjunctive—*i.e.*, the therapist should obtain the proper consent from the client directly, or demonstrate that the client is incapable of granting proper consent, in which case consent is required from a competent legal surrogate—the parent.

Even if it had been possible for a 5-yr-old cross-gender identified boy to comprehend intellectually the material involved in granting consent, requiring such a full, informed consent of the boy would have been psychologically damaging. Since the self-labelling process is crucial in gender identity development (Mussen, 1969), had we attempted to satisfy the normal definition of "informed consent", we would have been faced with the undesirable necessity of informing the boy that he was at high risk for transsexualism, transvestism, or homosexuality in the absence of intervention.

Generally, it is not considered relevant to ask whether the child possesses the right to grant consent for such social intervention. Society does not expect a child to grant full "proper consent" for educational intervention, medical intervention, or dental intervention, since it is widely recognized that a child cannot grant competent and informed consent even though the voluntariness criterion might be met. Behavioral intervention fits the same conceptual model (Rosen, Rekers, and Bentler, 1978). By itself, the child's lack of choice in an intervention does not pose any legal or ethical problem.

If the child is not intellectually or legally competent to consent for intervention on his sex-role behavior, whose values should be followed? Parents may possess one set of social values, clinical professionals may hold another set of values, and feminists and gay liberationists may possess a vastly different set of values. Winkler (p. 550) argues that the treatment of the target sex-role behaviors selected by Rekers and Lovaas is contrary to "the best long-term interest of society". Winkler states this as *his* value judgement", but for us, the best long-term interests of the *individual child* hold a clean priority over the general interests of society in this area.

In the case of the boy treated by Rekers and Lovaas, the views of the parents, those of the larger society, the child's cooperation, and the values of the professionals were all congruent. Nordyke and her colleagues and Winkler have

failed to present any evidence to the contrary.³ Nordyke and her colleagues and Winkler cited no evidence to indicate that the parents were out of line with the broader social values of the community by requesting professional consultation to prevent a deviant sexual outcome in their own boy and by serving as the therapeutic agents for their own child.

THE GOALS OF SEX-ROLE BEHAVIOR CHANGE

One goal for psychological intervention in childhood is to provide an increase of diversity and choice in the range of appropriate behavior (Mahoney and Thoresen, 1974). We sought to expand the behavior repertoire of a gender-disturbed boy to provide him a wider range of choices between alternate behaviors, and to reinforce more adaptive patterns of responding.

Nordyke and her colleagues and Winkler asserted that the particular set of clinical decisions, value judgements, and treatment strategies taken by Rekers and Lovaas (1974) are inappropriate, allegedly because attitudes are changing, laws are changing, gay liberation and feminist movements exist, psychiatric opinions have been modified, and behavior therapy adherents are taking certain public stands regarding the ethics of intervention. However, the mere fact that there are alternative ethical positions on the issue of treatment of gender disturbance does not, in itself, necessarily imply that *our* ethical position is wrong. It is a total leap in logic for the authors to propose alternate treatment goals or strategies and then to conclude that the intervention goals and strategies of Rekers and Lovaas are therefore, of necessity, improper.

Winkler's proposed alternative treatment

strategy of accepting the child's cross-gender behavior, teaching him assertion, and modifying the parents' lack of acceptance of sex-role deviance reveals (1) Winkler's lack of appreciation for the world of the gender-disturbed child,⁴ and (2) Winkler's imposition of his values on the adult parents in flagrant disregard for their right to define the desired behavior in their own child, which Kraig's parents did in harmony with values consistent with community standards. The imposition of Winkler's values would not have been consistent with the social codes and moral expectations of Kraig's community. Training Kraig in neutral competing behaviors may have been a successful alternate strategy, and would be worthy of pursuit in future research. But in this case, it would have been inappropriate (if not impossible) to teach him to modify his peers' behavior. Playing house with the girl across the street, Kraig would rigidly insist on taking the role of mother, and was rejected by the girl when he would not allow her occasionally to play the role of mother. Teaching Kraig to alter the little girl's rejection of him for his own rigid insistence on taking the role of mother would not have been as appropriate as teaching him to have more sex-role flexibility.

Winkler supported his approach by citing his paper (Russell and Winkler, *in press*) in which he reported on an "evaluation of assertive training and homosexual guidance service groups designed to improve homosexual functioning" in adults. He evidently believes that the most appropriate goal of the therapist dealing with the homosexual individual is to assist his adjustment to his homosexual orientation and behavior—achieving this objective through referral to a homosexual counselling center to place the individual in contact with others like himself. We

³The only challenge presented along this line is made by Nordyke and her colleagues in their phrase making reference to "several other young boys whose parents we *assume* have given permission for the use of these procedures" (p. 556, *italics added*). This is an unfair implication of unethical behavior without evidence thereof, and is misleading: we did obtain the proper ethical permission from the parents.

⁴The critics apparently have never observed firsthand the case of a cross-gender identified boy. Research demonstrates that graphically presented behavioral observation sampling data does not fully convey the range of deviant behavior patterns apparent when one makes *in vivo* observations (Bates *et al.*, 1974).

find this line of argument to be ethically unacceptable (Evans, 1975) and professionally irresponsible. It eliminates the possibility of choice for the individual and actually imposes an unjust narrowing of the person's options. If we had taken this misguided approach toward the gender-disturbed boy Kraig (as Winkler proposed), we would have been guilty of stigmatizing the prepubescent child with the label of "homosexual"—a process that has potentially disastrous "self-fulfilling" results. Kraig's parents opposed referral to a homosexual counselling service, which would have imposed limitations on Kraig's growth potential, and unnecessarily sanctioned immoral behavior (a judgement they shared with therapist Rekers for the reasons discussed by Bockmühl, 1973; Davidson, 1971; Enroth and Jameson, 1974; Lindsell, 1973; Vincent, 1972) and a potentially debilitating pattern of adult adjustment (Bieber, 1976; Hatterer, 1970; Socarides, 1970).

Our objective was to teach the gender-disturbed boy to discriminate a small number of behaviors that are appropriately sex-typed masculine and feminine, to decrease the boy's compulsive feminine behavior, and to encourage sex-role flexibility in the areas that go beyond the few essential distinctions between the masculine and feminine roles. We distinguish between arbitrary sex-role stereotypes (which should not be taught) and appropriate sex-typing. There are specific behaviors that are inappropriate for males under all circumstances (with minor exceptions; for example, in the profession of acting where alternate roles are assumed). For example, most girls learn to imitate the maternal role, which includes fantasies about growing up, maturing physically, having sexual relations with a man, subsequently delivering a baby, and breast-feeding the infant. It is an important socialization process for the *boy* to learn that he will not grow up with the biological possibility of having sexual intercourse with a man, becoming pregnant, delivering a baby, or breast-feeding an infant. In addition to learning these biological realities, the socialization process for

the boy includes the learning of legitimate cultural expectations for him. For example, it is legitimate for his society to teach him that he should expect to grow into manhood and to select a female (as opposed to a male) as a sex partner. As another illustration, wearing a dress is an arbitrary taboo for males under most circumstances in American society, but it is not necessarily an illegitimate social expectation. The wearing of a certain type of clothing does not hinder the boy's ultimate freedom to develop to his optimal potential (unlike arbitrary taboos on careers for men or women, which are illegitimate cultural expectations). After the boy has learned the few essential distinctions between masculine and feminine roles, and after treatment has succeeded in eliminating his rigid stereotypic feminine behavior, the major intervention goal becomes one of helping the boy to obtain sex-role flexibility in reasonable ways.

Published research has clearly demonstrated that adults with gender identity problems have extremely rigid sex-role conceptions, *i.e.*, they are not androgynous (Green, 1974; Green and Money, 1969; Kando, 1973; Stoller, 1968). For example, male and female transsexuals appear to have more rigid sex-role beliefs than normal males or females (Kando, 1973). It is hardly the androgynous individual who believes his physical body must be changed through surgery to meet the demands of his "mind". Intervention is required to treat or prevent this kind of debilitating sex-role inflexibility. Compulsive "feminine" behavior (to the exclusion of "masculine" behavior) should be decreased in both male and female children, recognizing that it is even more maladaptive for boys than it is for girls. It is therapeutically necessary to teach a gender-disturbed boy to control "feminine" sex-typed behaviors in the situations that bring social ostracism. The gender-disturbed boy needs help in overcoming the rigidity and compulsiveness of his punishment-evoking stereotyped feminine behaviors. Role flexibility is more adaptive because it maximizes the probability of peer group acceptance. These boys are more acceptable to

both male and female peers when they overcome their deficits in masculine behavior and their inhibitions toward androgynous behavior, and reduce the frequency of feminine behaviors. Improved general social adjustment and peer relationships have been reported for gender-disturbed boys who have made such a transition with intervention (Bates, Skilbeck, Smith, and Bentler, 1975; Rekers, Lovaas, and Low, 1974; Rekers, Willis, Yates, Rosen, and Low, 1977; Rekers, Yates, Willis, Rosen, and Taubman, 1976; Rekers and Varni, 1977). The data suggest that much of the emotional hardship suffered by gender-disturbed boys would be reduced if the range of their behaviors was increased, and their repertoire included a reasonable balance between "masculine" behaviors and "feminine" behaviors.

We are therefore not advocating the shaping of arbitrary sex-role stereotypes. It would not be therapeutic to change the cross-gender identified boy into an assertive person who withholds emotional expression (the presumed male stereotype in American culture).⁵ To illustrate further, there may be situations in which it is appropriate for a boy to wear girls' clothes (as in some acting situations), but the cross-gender identified boy rigidly adheres to wearing girls' clothes even when the situation does *not* demand it, or when the situation in fact demands quite the opposite. Gray (1971) cogently argued that the appropriate ethical goal for intervention research is to increase life options for the individual. "This behavioral freedom, contrasted with the philosophical variety, focuses on diversity of environmental options and the breadth of individual response repertoires. By increasing the number of responses available to an individual, he is freed from previous limitations imposed by such things as learning deficits and fears and anxieties that

have led to avoidance responses" (Thoresen and Mahoney, 1974, p. 5).

THE METHODS OF SEX-ROLE BEHAVIOR CHANGE

Since the article by Rekers and Lovaas (1974) presented the precise intervention methods employed, we will not summarize those procedures here. Our subject verbalized his identity as a girl and his wish to be a mother, totally rejecting the roles of boy and father; unfortunately, Winkler and Nordyke and her colleagues appear to have missed the clinical significance of this fact. But it is unfortunately not uncommon for applied behavior analysts to ignore the meaning (*i.e.*, total situational context) of behavior in their definition of target responses. Nurturant behavior in a boy is desirable, but when that behavior is accompanied by verbalizations of a female identity, it is undesirable. The latter, unfortunately, sex-types nurturance as a *female* characteristic, and it is maladaptive for a boy to be unable to perform nurturant behaviors in the context of covert verbal responses that constitute a "male identity". Rekers and Lovaas used the boy's own operational definition of female identity (*e.g.*, nurturant play) to reverse his cross-gender identification. After completing the 10-month treatment program, the boy's identity was normalized, and the explicit contingencies on sex-typed behavior were then removed. Compulsive feminine behaviors were treated only in the presence of a female identity (*i.e.*, the presence of overt and presumably covert verbal labelling of the self as "female"). Once compulsive feminine behaviors had ceased and a male gender identity was assumed, the formal behavioral treatment was discontinued as unnecessary (as is the case for any normal male-identified boy). Our 5-yr followup has demonstrated that this intervention did not result in an aggressive boy who avoids women; that was not the treatment goal and that was not the treatment result.

Some of the alternative treatment procedures suggested by Nordyke and her colleagues are

⁵We would be equally concerned with a female member of our society who, in the process of becoming "liberated" from traditional sex-role stereotypes, assumed a socially obnoxious, assertive behavior pattern coupled with the withholding of emotional expression.

certainly viable possibilities, and studies have already been published in which nearly all of those strategies have been attempted (see Bates, Skilbeck, Smith, and Bentler, 1975; Rekers, *in press*; Rekers, Lovaas, and Low, 1974; Rekers and Varni, 1977; Rekers, Varni and Rekers, Note 3; Rekers, Willis, Yates, Rosen, and Low, 1977; Rekers, Yates, Willis, Rosen, and Taubman, 1976). In our subsequent research, we have introduced other treatment techniques to promote a variety of androgynous, socially acceptable behaviors, and none of our intervention techniques has denigrated the opposite sex. In fact, subsequent to our Rekers and Lovaas article, Kraig himself was given additional behavior shaping in "masculine" games that are desirable for both boys and girls (see followup report in Rekers, 1977).

The mere existence of treatment alternatives, however, does not (in itself) render other alternatives (such as those employed by Rekers and Lovaas) automatically inappropriate. We choose to increase Kraig's repertoire of aggressive and assertive responses to the level of his peers to minimize his social rejection. The data have indicated that this strategy succeeded. We also set up contingencies to have Kraig refrain from playing with girls for a four-week period. With his previous pattern of exclusive play with girls, we judged it desirable to have him cease for a single month, to allow time for the acquisition of a competing pattern of peer play. At the end of the four weeks, the contingency on play with girls was removed, and the boy's peer play pattern was then typical of other 5-yr-old boys. He related well at that point with both boys and girls, and today, at the age of 10, he continues to relate well with both sexes, avoiding neither.

Nordyke and her colleagues question our training the boy to play with aggressive toys, such as a dart gun and hand cuffs. But they give no rationale for their position. Do they have any reason (empirical data) to be disturbed about the child shooting darts at a target? Do they fear that this will make the child unhappy? Or do they think such training will lead to a pre-

violent criminal personality? If they do, they have failed to provide any evidence for that hypothesis regarding the future prognosis of the child who plays with these kind of toys. What percentage of boys who play with dart guns or hand cuffs grow up to be law-abiding hunters or fine members of our police force or military? Nordyke and her colleagues have presented no rationale for preventing a "prepoliceman" or "prehunter" personality, nor any reason to avoid training a child in the same aggressive play found in normal boys.

The use of physical punishment is deemed appropriate by Nordyke and her colleagues for extreme self-mutilation by autistic children, but they cite Davison and Stuart's (1975) citation of Morris (1966) to advocate beginning in a new area with "the least intrusive procedure from which a positive outcome can be expected". This is what we actually did. The red tokens (S^r-) used in our study were first discriminative for a response-cost condition (*i.e.*, red tokens were subtracted from accumulated blue tokens) and then for a timeout procedure (*e.g.*, sitting in a corner, losing TV time). But the undesirable nongender behavior did *not* cease with these less intrusive measures. Upon the parents' suggestion, each red token was subsequently exchanged by one mild "swat" from Kraig's father. During the 10-month treatment, Kraig received a total of only two swats for nongender behaviors and four swats for gender behaviors. It is unfair to parallel the electric shock stimulus of Lovaas' work with autistic children with the few mild aversive "swats" given to Kraig by his father. And it is misleading for Nordyke and her colleagues to imply that we failed to begin with less intrusive procedures, when we in fact followed the very strategy that they recommend.

CONCLUDING REMARKS

It has been shown that Winkler and Nordyke and her colleagues have not substantiated their counter-claims with specific citations of supportive evidence in the positive sense. Their

reviews suffer a lack of specificity. These two critiques also draw unfair inferences from our study that we would never have drawn for ourselves. For example, although we reported the intervention for a *single cross-gender identified* boy, Nordyke and her colleagues concluded, "Thus, the treatment and results *implied* that males should play only with aggressive toys and never nurturance toys, and should: (1) never play with girls; (2) never play with dolls; (3) never engage in feminine role-play; and (4) never exhibit feminine gestures" (page 555, italics added). We would not, and have not, prescribed this treatment for normal males. To draw an analogy to the treatment of another mental disorder, Alcoholics Anonymous have been successful in treating alcoholism with the goal of abstinence, but that intervention success does *not* imply that *everyone* should *never* drink liquor. We did not advocate this treatment for normal child-rearing. We only reported on its success for changing the sex-role behavioral adjustment and gender identity of a single gender-disturbed boy—an intervention that was ethically and psychologically appropriate.

REFERENCE NOTES

1. Green, R. *The significance of cross-gender behavior during childhood*. Paper presented at the Fourth World Congress of Psychiatry, Madrid, Spain, 1966.
2. Murphy, J. G. Total institutions and the possibility of consent to organic therapies. In *Behavior Control and the Law*. Symposium presented at the 49th Annual Meeting of the American Philosophical Association, San Diego, California 1975.
- Varni, J. W. and Reckers, G. A. *Behavioral self-control treatment of "cross-gender identity" behaviors*. Paper presented at the 9th Annual Convention of the Association for the Advancement of Behavior Therapy, San Francisco, December, 1975.

REFERENCES

American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. 3rd ed.; Washington, D.C.: Author, 1968.

Baker, H. Transsexualism. Problems in treatment. *American Journal of Psychiatry*, 1969, **125**, 1412-1418.

Baker, H. J. and Green, R. Treatment of transsex-

ualism. *Current Psychiatric Therapies*, 1970, **10**, 88-99.

Bakwin, H. Deviant gender-role behavior in children: Relation to homosexuality. *Pediatrics*, 1968, **41**, 620-629.

Barlow, D. H., Reynolds, E. J., and Agras, W. S. Gender identity change in a transsexual. *Archives of General Psychiatry*, 1973, **28**, 569-576.

Bates, J. E. and Bentler, P. M. Play activities of normal and effeminate boys. *Developmental Psychology*, 1973, **9**, 20-27.

Bates, J. E., Bentler, P. M., and Thompson, S. Measurement of deviant gender development in boys. *Child Development*, 1973, **44**, 591-598.

Bates, J. E., Skilbeck, W. M., Smith, K. V. R., and Bentler, P. M. Gender role abnormalities in boys: An analysis of clinical ratings. *Journal of Abnormal Child Psychology*, 1974, **2**, 1-16.

Bates, J. E., Skilbeck, W. M., Smith, K. V. R., and Bentler, P. M. Intervention with families of gender-disturbed boys. *American Journal of Orthopsychiatry*, 1975, **45**, 150-157.

Bem, S. L. Sex-role adaptability: One consequence of psychological androgyny. *Journal of Personality and Social Psychology*, 1975, **31**, 634-643.

Benjamin, H. Newer aspects of the transsexual phenomenon. *Journal of Sex Research*, 1969, **5**, 135-144.

Bentler, P. M. A note on the treatment of adolescent sex problems. *Journal of Child Psychology and Psychiatry*, 1968, **9**, 125-129.

Bentler, P. M. A typology of transsexualism: Gender identity theory and data. *Archives of Sexual Behavior*, 1976, **5**, 567-584.

Bieber, I. A discussion of "Homosexuality: The ethical challenge." *Journal of Consulting and Clinical Psychology*, 1976, **44**, 163-166.

Bockmühl, K. Homosexuality in biblical perspective. *Christianity Today*, 1973, **17**(10), 12-18.

Davidson, A. *The returns of love: A contemporary Christian view of homosexuality*. Downers Grove, Illinois: Intervarsity Press, 1971.

Davison, G. C. and Stuart, R. B. Behavior therapy and civil liberties. *American Psychologist*, 1975, **30**, 755-763.

Enroth, R. M. and Jameson, G. E. *The gay church*. Grand Rapids, Michigan: Eerdmans, 1974.

Evans, T. D. Homosexuality: Christian ethics and psychological research. *Journal of Psychology and Theology*, 1975, **3**, 94-98.

Gray, S. W. Ethical issues in research in early childhood education. *Children*, 1971, **18**, 83-89.

Green, R. Sissies and tomboys: A guide to diagnosis and management. In C. W. Wahl (Ed), *Sexual problems: Diagnosis and treatment in medical practice*. New York: The Free Press (Macmillan), 1967. Pp. 89-114.

Green, R. Childhood cross-gender identification. *Journal of Nervous and Mental Disease*, 1968, **147**, 500-599.

- Green, R. *Sexual identity conflict in children and adults*. New York: Basic Books, 1974.
- Green, R. and Money, J. Effeminacy in prepubertal boys: Summary of eleven cases and recommendations for case management. *Pediatrics*, 1961, **27**, 286-291.
- Green, R. and Money, J. *Transsexualism and sex reassignment*. Baltimore: John Hopkins, 1969.
- Green, R., Newman, L. E., and Stoller, R. J. Treatment of boyhood "transsexualism"—An interim report of four years experience. *Archives of General Psychiatry*, 1972, **26**, 213-217.
- Hatterer, L. J. *Changing homosexuality in the male: Treatment for men troubled by homosexuality*. New York: McGraw-Hill, 1970.
- Kando, T. *Sex change: The achievement of gender identity by feminized transsexuals*. Springfield, Illinois: Charles C Thomas, 1973.
- Kinsey, A. C., Pomeroy, W. B., and Martin, C. E. *Sexual behavior in the human male*. Philadelphia: W. B. Saunders, 1948.
- Lebovitz, P. S. Feminine behavior in boys: Aspects of its outcome. *American Journal of Psychiatry*, 1972, **128**, 1283-1289.
- Lindsell, H. Homosexuals and the church. *Christianity Today*, 1973, **17**(25), 8-12.
- Mahoney, M. J. and Thoresen, C. E. *Self-control: Power to the person*. Monterey, California: Brooks/Cole, 1974.
- Martin, R. *Legal challenges to behavior modification*. Champaign, Illinois: Research Press, 1975.
- Morris, N. *Impediments to penal reform*. University of Chicago Law Review, 1966, **33**, 627-656.
- Mussen, P. H. Early sex-role development. In G. A. Goslin (Ed), *Handbook of theory and research*. Chicago: Rand McNally, 1960. Pp. 707-731.
- Myrick, R. D. The counselor-consultant and the effeminate boy. *Personnel and Guidance Journal*, 1970, **48**, 355-361.
- Nordyke, N. S., Baer, D. M., Etzel, B. C., and LeBlanc, J. M. The implications of the stereotyping and modification of sex-role. *Journal of Applied Behavior Analysis*, 1977, **10**, 553-557.
- Pauly, I. *Adult manifestations of male transsexualism*. In R. Green and J. Money (Ed), *Transsexualism and sex reassignment*. Baltimore: Johns Hopkins, 1969. Pp. 37-58.
- Randell, J. An emerging entity. *International Journal of Psychiatry*, 1970, **9**, 275-277.
- Rekers, G. A. Pathological sex-role development in boys: Behavioral treatment and assessment (Doctoral dissertation, University of California, Los Angeles, 1972). *Dissertation Abstracts International*, 1972, **33**, 3321B. (University Microfilms No. 72-33, 978).
- Rekers, G. A. *Sexual problems: Behavior Modification*. In B. B. Wolman (Ed), *Handbook of treatment of mental disorders in childhood and adolescence*. Englewood Cliffs, N.J.: Prentice-Hall, 1977.
- Rekers, G. A. *Treatment of childhood gender problems*. In B. B. Lahey and A. E. Kazdin (Eds.), *Advances in child clinical psychology*, Vol. 1. New York: Plenum, 1977, (in press).
- Rekers, G. A., Amaro-Plotkin, H., and Low, B. P. Feminine sex-typed mannerisms in normal boys and girls as a function of sex and age. *Child Development*, 1977, **48**, 275-278.
- Rekers, G. A., Bentler, P. M., Rosen, A. C., and Lovaas, O. I. Child gender disturbances: A clinical rationale for intervention. *Psychotherapy: Theory, Research, and Practice*, 1978, **14**, 1-8.
- Rekers, G. A. and Lovaas, O. I. Behavioral treatment of deviant sex-role behaviors in a male child. *Journal of Applied Behavior Analysis*, 1974, **7**, 173-190.
- Rekers, G. A., Lovaas, O. I., and Low, B. P. The behavioral treatment of a "transsexual" preadolescent boy. *Journal of Abnormal Child Psychology*, 1974, **2**, 99-116.
- Rekers, G. A. and Varni, J. W. Self-monitoring and self-reinforcement processes in a pre-transsexual boy. *Behaviour Research and Therapy*, 1977, **15**, 177-180.
- Rekers, G. A., Willis, T. J., Yates, C. E., Rosen, A. C., and Low, B. P. Assessment of childhood gender behavior change. *Journal of Child Psychology and Psychiatry*, 1977, **18**, 53-65.
- Rekers, G. A. and Yates, C. E. Sex-typed play in feminoid boys vs. normal boys and girls. *Journal of Abnormal Child Psychology*, 1976, **4**, 1-8.
- Rekers, G. A., Yates, C. E., Willis, T. J., Rosen, A. C., and Taubman, M. Childhood gender identity change: Operant control over sex-typed play and mannerisms. *Journal of Behavior Therapy and Experimental Psychiatry*, 1976, **7**, 51-57.
- Rosen, A. C., Rekers, G. A., and Bentler, P. M. Ethical issues in the treatment of children. *Journal of Social Issues*, 1978, **34**, (in press).
- Rosen, A. C., Rekers, G. A., and Friar, L. R. Theoretical and diagnostic issues in child gender disturbances. *Journal of Sex Research*, 1977, (in press).
- Rosen, A. C. and Teague, J. Case studies in development of masculinity and femininity in male children. *Psychological Reports*, 1974, **34**, 971-983.
- Russell, A. and Winkler, R. Evaluation of assertive training and homosexual guidance service groups designed to improve homosexual functioning. *Journal of Consulting and Clinical Psychology*, (in press).
- Socarides, C. W. Homosexuality and medicine. *Journal of the American Medical Association*, 1970, **212**, 1199-1202.
- Stoller, R. J. Male childhood transsexualism. *Journal of the American Academy of Child Psychiatry*, 1968, **7**, 193-209.
- Stoller, R. J. Psychotherapy of extremely feminine

- boys. *International Journal of Psychiatry*, 1970-1971, **9**, 278-280.
- Thoresen, C. E. and Mahoney, M. J. *Behavioral self-control*. New York: Holt, 1974.
- Vincent, M. O. A Christian view of homosexuality. *Eternity*, 1972, **23**, 23-25, 28.
- Winkler, R. C. What types of sex-role behavior should behavior modifiers promote? *Journal of Applied Behavior Analysis*, 1977, **10**, 549-552.
- Zuger, B. Effeminate behavior present in boys from early childhood. I: The clinical syndrome and follow-up studies. *Journal of Pediatrics*, 1966, **69**, 1098-1107.

Received 6 August 1976.
(Final acceptance 4 January 1977.)