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Peer Commentaries on Spitzer (2003)

Can Sexual Orientation Change? A Long-Running Saga

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The issue of whether people can change their sexual orientation has been obscured by moral controversy ever since homosexual orientation was "constructed" in the late nineteenth century (Bancroft, 1989, 1994). On the one hand, any evidence that such change has occurred has been used by those who condemn homosexuality as evidence of its "acquired" nature which, they would argue, is consistent with it being sinful; on the other hand, those who defend the homosexual reject evidence of such change on the grounds that those changed cannot have been true homosexuals in the first place (e.g., Ellis, 1915). Rational debate about the extent to which people can change, and what characteristics might predict the potential for such change, therefore becomes rapidly buried.

I am more than familiar with this long-running controversy. In the 1960s, early in my career as a budding behaviorist, I carried out research to assess whether behavioral techniques, such as aversion therapy or systematic desensitization, could modify sexual preference in men (no women presented themselves for such treatment). My experiences fairly quickly led me to conclude that such interventions were ineffective. But in reporting my findings (Bancroft, 1974), I came under attack from members of the Gay Rights Movement for attempting to impose societal norms on those with a homosexual orientation, and in the process reinforcing the social stigma. Thus, somewhat unwittingly, I found myself in the midst of this moral controversy. This, needless to say, caused me to reflect (Bancroft, 1975). In no way had I rejected homosexuality as a sexual lifestyle nor had I regarded it as pathological. In my innocence, I was responding to the requests of some homosexual men to help them to change and escape from the social stigma their sexuality brought upon them. Also, as a researcher, I wanted to know whether the claims of "reorientation" that were being made by other behavior therapists, in particular MacCulloch and Feldman (1967), could be substantiated. The use of such interventions did not imply that homosexuality was a pathology, but rather an aspect of behavioral responsiveness that might be modifiable with these new behavioral techniques that were based on so-called "modern learning theory."

Times were different then. The Gay Rights Movement was early in its development and it was much more likely than it is today that individuals would seek such change. But on reflection, I realized that, whereas I was genuinely trying to help the individual, in the process I was aligning myself with those who reinforced homophobic attitudes and all the consequences of the stigma that ensued. It did not continue to be a dilemma for me, as my own results gave me no reason to continue to use such simplistic interventions.

Then, in 1973, the American Psychiatric Association (APA) removed homosexuality from the DSM, in the process rejecting the notion that it was inherently pathological (Bayer, 1981). Although revealing considerable division of opinion within the psychiatric profession on this issue, this step could be regarded as the official end of the medicalization of homosexuality, which up to that time had been pursued steadfastly by the medical profession. As if to reinforce this "demedicalization," the APA has since periodically issued statements about the immutability of sexual orientation, and that it is unethical for clinicians to attempt to change it with therapy (American Psychiatric Association, 2000). What has happened since 1973 is that "the Church," in many of its manifestations, has stepped into the breach, reviving religious opposition to homosexuality in terms of immorality rather than pathology. Given that Spitzer played a key role in the APA's demedicalization of homosexuality in the 1970s, it is interesting that he has recently paused to reconsider, if not the pathology of homosexuality, at least its immutability.

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What can we learn from Spitzer's study? Its principal strength is the substantial size of his sample, much larger than most comparable studies. I also have no reason to doubt Spitzer's sincerity in carrying out this study. But there are some major limitations.

First and foremost, the sample consists of men and women who principally sought treatment because of their religious beliefs and who were presenting themselves as evidence that such change was both possible and desirable for others (for 93%, religion was extremely or very important, and 78% had spoken in public about their "conversion," in many cases in their churches). Assessment of change was entirely based on their recall of how things were before treatment. Given their powerful agenda of promoting such treatment, it would be surprising if they did not overestimate the amount of change. A similar problem exists with the evaluation of any treatment for which the patient has a vested interest in proving its worth. Spitzer addresses this issue by pointing out that simple bias of this kind would have produced a more clear-cut picture of reorientation and no gender difference. He is partially right, but he cannot justifiably conclude that because there was not maximum distortion, that distortion did not occur.

Secondly, it is very difficult to discern from this study just what the "reparative therapy" had involved. At best, it had been a long process, with a substantial minority still continuing in ongoing therapy after many years. There were a few hints at specific interventions, mainly of the "self-control" variety (e.g., "thought stopping," "avoiding tempting situations"), and an intriguing passing reference, at least for homosexual men, to "the demystification of the male and maleness," resulting in a decrease of romanticization and eroticization of men. But for the most part, there seemed to be a more general process involving group pressure and therapist reinforcement of the determination to be different and, as a result, less immoral.

It was not clear how these subjects were recruited, although unquestionably they constitute a highly unrepresentative sample of those who had come under the influence of religion-driven "reparative therapy." I could also take issue with Spitzer's criteria of change, and his title, which states that 200 subjects reported a change from homosexual to heterosexual orientation, when the article reports a less substantial change for many, if not most, of them.

So where does this leave us? Let me put aside, for one moment, the politics and ethics of "reparative therapy." There are good grounds, apart from this study, for concluding that sexual orientation is not always fixed early and immutable. Whereas the large majority of us identify as homosexual or heterosexual at a relatively early age, never change, and have no inclination to attempt to change, there is a minority of unknown size whose sexual behavior is less bound by an "orientation" or who are less certain about their sexual identity and who may go through processes of change without any involvement in "reparative therapy" or the like. It is noteworthy that Kinsey (Kinsey, Pomeroy, & Martin, 1948) proposed his scales to capture the variability of sexual preference, not only across individuals, but also within the same individual over time. As the Gay Rights Movement gathered momentum, Kinsey's view was rejected, in favor of a clear dichotomy of "straight or gay," with those who identified as bisexual regarded as deceiving themselves (e.g., Robinson, 1976). In the past 15 years, the flexibility of sexual identity has again been acknowledged. In the AIDS era, the concept of "men who have sex with men" is used as a more general descriptor than "homosexual."

Every now and then, I see someone in my clinic who presents himself (and, more occasionally, herself) as confused or conflicted about sexual identity. Sometimes they are struggling with the idea of bisexuality. "Does bisexuality exist?" they might ask. In some cases, their sexuality is compartmentalized (e.g., "I find certain types of men very sexually arousing, but I can't imagine being in a loving sexual relationship with another man")—what might be described as a failure to incorporate one's sexuality into one's capacity for a close dyadic relationship, a problem by no means confined to those with homosexual orientation. How do I react to such patients after a career of reflection on this issue? I now have no doubts about how to respond and this involves some crucial sequential steps:

Step 1. Make it absolutely clear that, whatever the patient's values or beliefs might be, I have no difficulty whatsoever in accepting and valuing either a homosexual or a heterosexual or a bisexual identity. The issue is which is right for that person. In so far as I have personal values, they apply to issues of responsibility and the use of sex to foster intimacy in a close ongoing relationship. Neither is dependent on the gender of those involved. It behooves the therapist to be explicit about her or his moral values as they impact on the treatment process so that the patient can choose whether to work with that therapist or not.

Step 2. Make it clear that in order to find out what type of sexual relationship works best, it may be necessary to experience more than one type of relationship, involving partners of either gender. Furthermore, during a lifetime, more than one successful relationship may occur, involving same sex and opposite sex partners at different times.

Step 3. Emphasize the need to take time to work out what is right. The therapist, who is better designated as a

counselor in this context, facilitates this process of search and discovery as appropriate. This may involve helping the patient to identify the different "compartments" of his or her sexuality, and how to incorporate them into a sexually rewarding, intimate, and loving relationship. This is more education than therapy.

Some of the subjects in Spitzer's study may have gone through some comparable process, except that it is clear that at no time was the acceptability of a homosexual or bisexual solution ever on the agenda. Others sound as though they are still battling with the conflict between what feels sexually right for them and what is morally acceptable to them (and their therapist).

The concept of "reparative therapy," as described, raises some key ethical issues, the most fundamental being the distinction between medical treatment for a pathological condition and the imposition of moral values under the guise of medical treatment. If there were any grounds for regarding homosexual orientation as a pathology rather than a variant of human sexual expression, then treating the pathology might be justified. I would assert that there are no such grounds, and hence providing treatment on that basis is professionally unethical and, according to my value system, immoral. There is a long and disturbing history of medical practitioners imposing their moral values through their professional practice. The imposition of moral values, explicitly or implicitly, that is, urging someone to undergo change because their current sexual orientation is immoral, should not be regarded as "therapy," and in any case raises other ethical and moral issues. I would strongly advocate Surgeon General David Satcher's *The Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior* (U.S. Department of Health and Human Services, 2001). This calls for responsibility in our sexual lives (responsibility towards ourselves and our sexual partners), coupled with a respect for diversity. Thus, someone who believes that homosexuality is wrong is entitled to that opinion, but is not entitled to impose it on others, particularly if those others exercise responsibility in their sexual lives. Thus, the principle of responsibility facilitates the acceptance of diversity.

Spitzer's findings are consistent with the idea that some people do change their sexual orientation in some respects during the course of their lives, but his findings do not justify the existence of "reparative therapy." As defined, this constitutes vigorous reinforcement of homophobia and the social stigma experienced by those with homosexual identities in our society. Together, this results in widespread suffering for homosexual minorities and, no doubt, for many who are pressured into attempting such change, considerable conflict and unhappiness.

Understanding the Self-Reports of Reparative Therapy "Successes"[1]

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It should not be surprising that individuals who identify as "ex-gay" would report positive results when invited to participate in a study designed to support their position. It would be more informative, however, to understand how and why they came to those conclusions. My commentary on Spitzer's study will involve reinterpreting his data in light of my research regarding individuals who reported successful experiences and those who reported harms from sexual reorientation therapy. My commentary will also clarify several misunderstandings that Spitzer made regarding my research.

My article that Spitzer cited (Beckstead, 2001a) was not meant to be a comprehensive summary of my findings or methodology but was written to describe the variety of agendas involved in sexual reorientation therapy. The methods I used in my investigations have been detailed in Beckstead (1999, 2001b) and Beckstead and Morrow (2003). Briefly, the whole of my research in this area includes two qualitative investigations involving 45 men and 5 women who held a wide-range of perspectives regarding sexual reorientation. Participants described their experiences at different points between 1997 and 2001 through interviews, prospective personal journals written during their therapy, four focus groups, and a multidimensional assessment (Coleman, 1987) of past, present, and intended future sexual orientations. Participants verified and also influenced my analysis of their experiences by reading preliminary results and correcting misinterpretations. Throughout these multiple interactions, participants described when they first discovered their attractions, how they dealt with these attractions while growing up, what motivated them to seek reorientation therapy, what their experiences were of such therapy, how therapy had affected them, how they currently managed their attractions, and what changes had occurred since the beginning of the study. Unlike Spitzer's investigation, my studies also asked participants about their reasons for being involved with this type of research. All participants were asked the same questions during the interviews but were allowed to describe their experiences without any leading questions or direction. Similar to a structured interview, this method allowed for consistency and comparability among participants but also permitted exploration and the opportunity for participants to respond in their own terms.

The primary difference between my studies and Spitzer's study is that my research was designed to analyze the meanings of participants' experiences and understand the context of their struggles and how they cognitively or behaviorally resolved their conflicts. Spitzer used his participants' self-reports, however, to prove the efficacy of reparative therapy. Because of my research focus and methodology, I learned that a variety of alternate reasons exist, besides the efficacy of reorientation treatments, as to why and how such participants claim success. I learned foremost that participants could identify as heterosexual because they were provided in the course of therapy with causal theories and interventions that helped them dissociate from a gay or lesbian identity. Such techniques included teaching participants that they were heterosexuals who had sexualized their emotional needs to be close to the same sex. Participants could then reframe their same-sex sexual fantasies as "admiration" rather than eroticism and believe they were heterosexual by eliminating their homosexual behaviors and maintaining their commitments to their family and religion.

Participants described being successful in reducing homosexual thoughts and behaviors; however, my results demonstrated ambiguity and inconsistencies in participants' reports of their sexual orientation. For example, some participants indicated they were "exclusively heterosexual" but specified experiencing limited heterosexual attractions. Some would describe themselves as "heterosexuals with a homosexual past," or as no longer having homosexual attractions, but only because they now avoided certain situations, such as "cruising" areas or being alone with same-sex individuals. These same inconsistencies may also be found in Spitzer's findings when some could not answer the question regarding labeling their sexual identity. Successful reports of reorientation in my studies were also in contrast to participants' journal entries, which monitored their attractions and motivations throughout their therapy experience. Several wrote about homosexual and heterosexual longings but later denied or disregarded them, which seemed to depend upon their current thinking process and circumstance. Because of these discrepancies in self-reports, it was difficult to say exactly how many participants experienced an increase in heterosexual attraction following therapy.

It became apparent during my analysis as well that participants' sexuality could not be measured on a unidimensional scale, as Spitzer used, because their homosexual attractions seemed mutually exclusive to their heterosexual attractions. That is, if a participant described himself or herself as "less homosexual," it would not necessarily mean she or he was "more heterosexual." Spitzer claimed that my definition was arbitrary of what constitutes a significant increase in heterosexual arousal. However, I conceptualized sexual orientation by using Freund's (1974) definition as "the erotic preference for the body of one sex over that of the other" (p. 26). Participants in my studies reported that, at the end of therapy, they could still be aroused erotically to the body shape of same-sex individuals and, indeed, that this arousal pattern exceeded that toward opposite-sex individuals *despite calling themselves heterosexuals.* Participants reported that therapy helped them change their thinking about and expression of homosexuality and sexuality but not their actual sexual orientation. As well, even those participants who reported having an increase in heterosexual attraction described those attractions as oriented only to their spouse and different from their homosexual arousal. This difference in attraction and intimacy was described by one "converted" participant in this way:

> I use the comparison of a campfire versus a forest fire. That maybe my emotional response to men would be like a forest fire and that it's very . . . it's been very intense and dangerous and out of control and perhaps damaging or hurtful. But my relationship with my wife is more like the campfire. It's warm and comfortable and happy and reassuring and protective and although it probably doesn't have the same emotional intensity that the physical relationship with a man might bring, you know, I think maybe it's good.

Some participants enjoyed sexual intercourse with the opposite sex; some stated that sexual intercourse with the opposite sex felt unnatural. Additionally, participants reported that their same-sex attractions and conflicts became a non-issue because they became less focused on their sexuality and more focused on careers and relationships.

Several other reasons exist concerning why we should not accept these clients' self-reports uncritically. As Spitzer noted, self-reports are unreliable measures. Freund (1960, 1977) and Conrad and Wincze (1976), for example, found that clients' self-reports of favorable reorientation outcomes tended to be imprecise, deny certain facts, and were not supported by objective data. Spitzer seemed to believe that he has assessed sexual attraction; yet, he has only measured participants' subjective experiences of their attractions. Phallometry would be a more reliable and valid measurement of sexual orientation because it distinguishes erotic arousal patterns in men. In addition, men can suppress responses in such assessments but not produce false ones (Kuban, Barbaree, & Blanchard, 1999; see also Chivers, 2000). A person who is primarily attracted to children and who wants to avoid punishment would more than likely tell others that he has changed, but measuring the degree of his arousal may indicate otherwise.

Demand characteristics and social and cognitive dissonance theories suggest that participants in my research and in Spitzer's would also need to tell themselves and others that they were not failures. Given the extreme internal and external motivations and the amount of time and energy they have invested, participants would want to feel successful.

To illustrate this, I talked with an individual, "Steven" (personal communication, January 26, 2003), who participated in a study conducted by Shidlo and Schroeder (2002), which was similar to mine and to Spitzer's. Steven stated that he was asked by his therapist to participate in this study and "give a good report." Steven stated that he felt confident at the time of his interview that he was doing the right thing and was making progress. Therefore, he told the interviewer that he had made significant improvements in his pre and post ratings. Steven also stated, however, that, in retrospect, his report was "inflated" and based on his need for approval and validation:

> I wanted to be NARTH's poster child. I wanted to fit in and there was so much at stake. I wanted to boost my morale and tell others that I was doing well. . . .I downplayed my sexuality. I lied enough so it would be believable to myself and the researcher. I also believed I could become [heterosexual], and I saw a glimmer that it was true. I convinced myself because I sometimes felt it, and there was enough hope that it was or could be true.

Steven stated that because he was behaving heterosexually, could be aroused with stimulation, was delaying the times between ejaculations, and loved his wife, he felt heterosexual. He also described sex with his wife as satisfying because it kept his family together, met religious and societal standards, and was preferable to the extreme guilt associated with the brief sexual encounters he had with men. He also stated that he struggled with labels: "I've slept with 1 woman 100 times and 100 men 1 time. Am I bisexual?" Steven stated that although he stopped sexualizing his thoughts about men, his dreams manifested erotic preferences for them. Furthermore, Steven stated that his self-report was political: "Gay-affirmative research was taking away our right to our beliefs. I needed to defeat these people and stand up for our beliefs and for the crusade." Steven's experiences are similar to those described by my participants and suggest that Spitzer's data collection may be invalid, ignoring important contextual factors and the shifts these individuals may make in perspectives and individual development.

An additional limitation of Spitzer's study is his selective reporting of clients' experiences. His research fails to describe the experiences of those individuals for whom reparative therapy does not work. By contrast, my research included the significant harms that occurred when hopes and assurances of a lasting cure turned false and the person continued to be "plagued" by same-sex attractions after sincere efforts to change had failed. These failures were internalized and reported to increase self-hatred, hopelessness, and fear, even leading some participants to attempt suicide. Additionally, reparative therapy tended to reinforce extreme, negative stereotypes of the lives of lesbian, bisexual, and gay individuals, which seemed to cause still more self-hatred, discrimination, and difficulties in intimacy. Spouses and families also blamed themselves or the client for not changing enough and further pain, separation, and depression followed. These harms are not superficial ones. They require clarification and accuracy in portraying how the underpinnings and current practice of such therapy have the potential for serious negative consequences. Spitzer espouses reparative therapy, but missed the larger picture because he limited his focus on a highly self-selected, nonrepresentative portion of the population who may seek out such treatments.

Spitzer's data are important, however, in that they demonstrate that a subset of same-sex attracted individuals can adapt successfully to live in a heterosexual relationship. Spitzer is inaccurate when he wrote that I would consider these individuals as therapy failures. In fact, I have advocated and developed a broader-based treatment plan where such clients can explore a wide range of options and develop individualized solutions to integrate their sexual and social selves in a healthy manner. My biggest concern is that Spitzer's description of his data is misleading. Policy makers, religious leaders, families, and individuals in conflict may believe that all homosexual or bisexual individuals could (and therefore should) be heterosexual if they just tried hard enough. In fact, Spitzer's study has been widely cited as proof that gay men and lesbians can change their sexual orientation. A more accurate interpretation of his results would suggest, however, that only a rare proportion of same-sex attracted individuals can find ways to live satisfactorily in a heterosexual relationship.

The Malleability of Homosexuality: A Debate Long Overdue

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Is homosexuality innate and immutable? Or can a person with a homosexual sexual orientation make significant changes in the direction of becoming heterosexual? Are the official statements issued by the major national mental health associations—which declare that there is

no published evidence demonstrating that homosexuals can significantly alter their sexual attractions—in fact, accurate? Such questions take center stage in any discussion of sexual orientation and change.

Studies published in some peer-reviewed journals have attempted to demonstrate that homosexuality is so strongly compelled by biological factors that it must be indelibly ingrained in a person's core identity. Therefore, such studies imply that sexual orientation is not amenable to change; however, critical reviews of those studies and subsequent acknowledgments by the researchers themselves yield only one conclusion: that biology alone is not sufficient to explain the development of homosexuality (Byne & Parsons, 1993; Friedman & Downey, 1993; Hamer & Copeland, 1994; LeVay, 1996). Rather, homosexuality—like most other complex attractions and behaviors—is almost certainly polygenic and multifactorial in origin. Given this likely genesis of homosexuality, what potential is there for change for those individuals who are motivated to seek such change?

Sexual plasticity in homosexual men is not a new or novel idea. More than 30 years ago, Freund (1963, 1971), using penile plethysmography, found that some homosexual men could voluntarily alter their penile responses to respond to heterosexual stimuli without ever receiving reorientation therapy. Although it would be erroneous to generalize from such a clinical sample to suggest that homosexual orientation is malleable in all people, still, historical and current research would suggest that it is equally erroneous to conclude that change in sexual orientation is not possible for *some* men.

In addition, the recent research by Diamond (2000) on lesbians has demonstrated that sexual orientation in females is far from fixed in those women who are not exclusively heterosexual. My own research and clinical experience for more than 30 years suggests that some homosexual men are able to make and sustain significant changes in core aspects of their homosexual orientation, including fantasy and sexual arousal—not just behavior. Such individuals are able to develop and then maintain heterosexual attractions (Byrd & Nicolosi, 2002; Nicolosi, Byrd, & Potts, 2000). Sexual plasticity in homosexual men and women has not received adequate attention within our profession. Indeed, a number of writers have decried the political activism that silences opposing viewpoints within the mental health arenas (Halpern, Gilbert, & Coren, 1996; Sarason, 1986). In a recent lead article in the *American Psychologist*, Redding (2001) made a strong case for the lack of sociopolitical diversity in psychology, the bias that results in research and publications, and the *de facto* discrimination that disfavors clinicians who hold unpopular views (such as the belief that clients who seek sexual reorientation should be supported).

This confounding of politics, psychology, and therapeutics has occurred, I believe, because of antihomosexual bias in some cases and gay activism in others. In both instances, there has been a confusing co-mingling of facts and theories by anti- or prohomosexual political groups—both of which claim to have science on their side—and the ideas expressed do not appear to be representative of beliefs held by most therapists.

Frustrated with such activism, a former president of the American Psychological Association (APA), Robert Perloff, exclaimed "... listen to the client..." (Murray, 2001). Indeed, patient self-determination is the cornerstone of the mental health professions, and it must take priority over political activism. In fact, in a rare public expression of anger and frustration at the American Psychological Association meeting in 2001, Perloff condemned the APA's narrow politicism. Of reorientation therapy with homosexuals, he said: "It is considered unethical.... *That's all wrong.* First, the data are not fully in yet. Second, if the client wants a change, listen to the client. Third, you're barring research" (Murray, 2001, p. 20).

Listening to the client and respecting his or her choices are essential to the mental health professions, and Spitzer has concluded that some individuals who seek to diminish their homosexual attractions are motivated by a rational, self-directed goal. They are not simply seeking change to conform to external pressures or because of internalized homophobia.

The Spitzer study essentially reopens the debate over whether or not homosexuality is mutable. His research has ignited a heated discussion about the possibility of diminishing a homosexual orientation and developing heterosexual attractions. Indeed, Spitzer provides evidence that some gay men and lesbians are not only able to change self-identity, but are able to modify core features of sexual orientation, including fantasies. Thus, his research makes an important contribution to a plethora of other studies and case reports on change (Throckmorton, 2002).

Spitzer's sample size was larger than those of most in prior studies. He carefully considered the affective components of the homosexual experience and was considerably more detailed in his assessment than were other studies. His use of a structured interview demonstrates clearly how the subjects were evaluated. He limited his pool of participants to those who reporting at least 5 years of sustained change from a homosexual to a heterosexual orientation. Virtually any bias in the interview coding was eliminated by the near perfect interrater scores. A unique feature of his research is that the entire set of data is available to other researchers. And, finally, Spitzer has been and

continues to be supportive of gay affirmative therapy and gay rights.

Much of the criticism of Spitzer's study is likely to focus on sample bias because many of his subjects were referred by religiously conservative organizations which promote the possibility of change; however, as astutely noted by Rosik (2003), this may actually be a strength of the research given that the clear majority of the studies on homosexuality and change used convenience samples solicited through gay-affirming organizations and media. Rosik (2003) further notes that "this suggests a skew in the existing literature as a whole, the degree of which can only be determined through a closer examination of individuals such as those in Spitzer's study" (p. 18).

A substantial majority of the participants in the Spitzer study valued and agreed with their traditional religious faiths, which view homosexual relationships as non-life-giving and outside of the will of God. Such value systems should not be dismissed, judged by the therapist to be improper, or overridden through therapeutic manipulation. Haldeman (2000) offers an interesting perspective in this regard:

> A corollary issue for many [clients] is a sense of religious or spiritual identity that is sometimes as deeply felt as is sexual orientation. For some it is easier, and less emotionally disruptive, to contemplate changing sexual orientation, than to disengage from a religious way of life that is seen as completely central to the individual's sense of self and purpose. However we may view this choice or the psychological underpinnings thereof, do we have the right to deny such an individual treatment that may help him to adapt in the way he has decided is right for him? I would say that we do not. (p. 3)

As LeVay (2000) explains it:

> First, science itself cannot render judgments about human worth or about what constitutes normality or disease. These are value judgments that individuals must make for themselves, while possibly taking scientific findings into account. Second, I believe that we should as far as possible, respect people's personal autonomy, even if that includes what I would call misguided desires such as the desire to change one's sexual orientation. (p. 12)

Spitzer's research has demonstrated that, contrary to the prevailing climate, the data on homosexuality are far from complete. Ethicality would suggest that the suppression of data and discouragement of further scientific research should not be tolerated. With appropriate guidelines in place (institutional review boards), it is not only ethical but well within the purview of science to encourage the study of issues such as change from homosexuality. The well-intentioned caretakers of our national organizations slide down a slippery slope when advocating what amounts to a virtual censorship of scientific investigation of politically unpopular views. It is ironic that Spitzer—the original architect of the 1973 decision to remove homosexuality from the DSM—is once again, going against the prevailing winds of his time and advocating the avoidance of that slippery slope.

A Methodological Critique of Spitzer's Research on Reparative Therapy

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In Spitzer's study of the effectiveness of reparative therapy in changing sexual orientation, he reports that gay men and lesbians indicate that they have made major changes in their sexual orientation from homosexual to heterosexual. He also notes that even those who made only limited change in sexual orientation still found the therapy beneficial.

The criteria for acceptance into the study required subjects to have had a predominantly homosexual orientation before entering reparative therapy. They should be able to report that after reparative therapy they have sustained for at least 5 years some change toward a heterosexual orientation. The acceptance criteria also required participants to report in a telephone interview on their sexual behavior for the year before they entered reparative therapy and then also report on their behavior in the year before the current research interview. Spitzer reports that there was, on average, an interval of 12 years between the time of entry into reparative therapy and the telephone interview. This places a heavy burden on memory and Spitzer acknowledges there is greater fallibility in such long range memory.

Participants in the study come from a very narrow stratification of the population: 97% were Christian, 95% were Caucasian, the mean age for males was 42 years, the mean age for females was 44 years, 76% of the males were married, and 47% of the women were married. Some participants were directors of ex-gay ministries and some had publicly spoken favorably of efforts to change sexual orientation, often at their church. Thus, this is a population of highly religious, White, Protestant, middle aged, and middle class men and women. There is little evidence that they are representative of a diverse gay community.

Participants in this study were asked in a telephone interview to report on their sexual fantasies, masturbation fantasies, lustful looks, use of gay pornography, homosexual thoughts, and overt sexual behavior. A key question is the credibility of the participants' self-report. It should be

recognized that 93% of participants reported that religion was extremely or very important to them.

No consent form was administered and participants' identity was known to the interviewer. Ethical guidelines for informed consent for research issued by the American Psychological Association (2002) require not only protection of confidentiality for participants but that a consent form should clearly state that participants may withdraw from research at any time. Without a consent form, it is possible that participants were wary that their confidentiality would not be protected. The total reliance on self-report in this study can be disturbing when one considers that fundamentalist religious beliefs tend to be strongly opposed toward any acceptance of homosexuality.

Martin (2000) has pointed out that when the research topic is an emotion-laden issue, then individuals might not wish their true feelings to be known, particularly when these feelings differ from socially accepted practices in their community. It seems that this highly religious Christian sample would be particularly vulnerable to feelings of shame and embarrassment if they had to report that they had engaged in condemned behavior. There is a significant risk for self-deception and even lying in highly religious participants when responding to questions about sexual behavior that is strongly condemned by their religion. These participants would also be highly motivated to providing supportive data for the possibility of change of sexual orientation.

Another methodological concern is that all the telephone interviews were done by the investigator alone. This raises the methodological issue of interviewer bias. An interviewer can subtly influence respondent's answers by inadvertently indicating approval or disapproval (Cozby, 2001). Interviewers may also bring their own expectations to their interviews and that can bias their interpretation of responses. Although no research method is absolutely free of bias, the interview is more open to bias than most other research methods (Sommer & Sommer, 2002). It would have been better to have trained and used other interviewers, preferably those blind to the hypothesis of the study. A research assistant did independently rate audio recordings of 43 of the 200 interviews and Spitzer reports they achieved .98 interrater reliability based on this sampling. It would be helpful if one had some details on the background of the research assistant in order to evaluate more fully the interrater reliability.

Another issue of concern was the diversity and background of the therapies or counseling offered. Although all were described as reparative or conversion, with the goal to change sexual orientation from homosexual to heterosexual, the therapists came from different educational and training backgrounds. The majority (43%) were from ex-gay religious ministries, primarily Protestant, who focused on conversion to heterosexuality; 23% came from a group of primarily psychoanalytic mental health professionals and lay people with the same focus; 9% were recruited as participants by their former therapists; and 25% were a variety of sexual reorientation counselors, including social workers, ministers, and lay people.

Despite the diverse educational and training background, Spitzer lumps all types of counseling together as reparative therapy. Since religious approaches may well be in the form of prayer, it is difficult to see how this form of counseling can be combined in data from the treatments used by trained psychoanalysts. This presents confusion since it is unclear to which particular type of therapy any reported changes can be attributed.

Spitzer used a numerical scale of sexual attraction to determine whether participants had a predominantly homosexual or heterosexual orientation before entering therapy and to assess any changes in sexual orientation by comparing scores on this measure after they had received reparative therapy. He defined participants in the study as predominantly homosexual if they scored at least 60 on the scale of sexual attraction before seeking therapy. He also required before acceptance in the study that participants report a change of at least 10 points, lasting at least 5 years, toward the heterosexual end of the scale.

It is difficult to assess data from this Sexual Attraction Scale, which appears to have been designed for this study. This is a 100 point scale (where $0 =$ *exclusively heterosexual* and $100 =$ *exclusively homosexual*). Spitzer defined a score ≥ 20 as homosexual (see Table I) and used the same score on the Sexual Orientation Self-Identity Scale. It appears that, for example, participants who scored 25 on this scale will be recognized as homosexual and similar to participants who scored 100 on this scale.

Spitzer reported that married couples were mailed copies of the Dyadic Adjustment Scale (Spanier, 1976). They were asked to complete this questionnaire independently of their partner and to mail it in. Spitzer reported a 72% response rate from married participants and that, on average, subjects reported the same degree of marital adjustment as the instrument's normative reference group. It is difficult to assess data from this measure because no description was given of it, no complete reference for it was given, and no validity cited. There was also no control over when and how the respondents actually completed the measure.

There was no control group in this research, although admittedly that would be hard to obtain. This means that causality cannot be demonstrated. Spitzer acknowledged that there are fundamental methodological problems with

the research but also claims that it provides support for the possibility of reparative therapy to change sexual orientation from homosexual to heterosexual. Spitzer cited some nonsexual benefits from this therapy. He noted that participants reported that after therapy they had a greater sense of masculinity in males and femininity in females. This needs more clarification in light of the many studies of the complexities of gender roles (Crawford & Unger, 2000; Kilmartin, 2000).

In conclusion, even the limited hypothesis that some individuals whose orientation is predominantly homosexual can become predominantly heterosexual following reparative therapy is not supported by this study. It may be possible that some of the research participants might have a more fluid sexual orientation, such as bisexuality (Bohan, 1996).

Are Converts to Be Believed? Assessing Sexual Orientation "Conversions"

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The realization that subject selection criteria significantly influence results when investigating socially stigmatized populations is one of the earliest and most frequently documented lessons learned by sexologists. Examples of the biasing influence of subject selection are legendary, including the early discovery that recruitment venue could determine outcomes, such as age of coming out, number of gay friends, and self-esteem level (Harry, 1986) and, more recently, that selecting gay youth from support groups (Savin-Williams & Ream, in press) or with sex-atypical behavior (McDaniel, Purcell, & D'Augelli, 2001) escalates levels of reported suicidality. Reviewing problems inherent in sampling "homosexuality," Sandfort (1997) argued that "findings in a specific study depend heavily on the definition and operationalization of homosexuality adopted, and on the way the sample has been put together" (p. 261). Yet, sample selection remains one of the "unresolved issues in scientific sexology" reviewed by McConaghy (1999) several years ago in this *Journal*.

No where is this issue more pertinent than in assessing the highly volatile issue of sexual orientation change following reparative therapy. As Spitzer noted in his literature review, the question of the effectiveness and consequences of "reorientation" therapy has been a source of vitriolic controversy. Because of this current debate, we believe that sexologists must be extra vigilant to conduct the most methodologically sophisticated, conservative investigations possible, which implies being particularly attentive to subject selection. We do not believe that it is justifiable for contemporary research scholars to presume their conclusions by selection criteria: Including subjects most likely to agree with the author's hypothesis while excluding those most likely to give disconfirming results. To permit conclusions about causality, which Spitzer denies making, but nevertheless embraces ("change in sexual orientation following some kind of therapy does occur in some gay men and lesbians"), the scientific method must be fully embraced, for only then will it be possible to determine whether events (sexual orientation change) are the consequence of chance, untested variables, or the study's independent variable (reparative therapy). Scientific research also depends on the willingness of the researcher to question the truthfulness of subject claims. Given the failure of previous scientific attempts to demonstrate change in sexual orientation (versus sexual identity or behavior), the findings by Spitzer deserve close methodological scrutiny.

In this commentary, we ignore Spitzer's apparent conceptual misunderstanding about the purpose of his study (a title and literature review that promises a study about changes in sexual orientation from homosexual to heterosexual, but a proposed hypothesis that merely suggests shifts in sexual attractions, an event not uncommon among many sexual-minority individuals—see Diamond, 2003a). We also ignore several methodological procedures that create doubt about whether Spitzer used proper scientific methods to ensure the validity of his data, including his definition of sexual orientation, the lack of reliability and validity data on instruments, and the failure to behaviorally anchor response items. Instead, our focus is on subject selection biases that raise serious questions about the veracity of subject claims of reorientation. It is our contention that Spitzer selected a unique group of subjects who were decidedly invested in demonstrating the possibility and benefits of reparative therapy. This one fatal flaw seriously diminishes the internal and external validity of his study and necessarily precludes the very conclusions Spitzer offered: "The mental health professions should stop moving in the direction of banning sexual reorientation therapy" and that "many patients . . . can make a rational choice to work toward developing their heterosexual potential and minimizing their unwanted homosexual attractions."

Who were Spitzer's subjects and how could this collective affect the internal and external validity of his findings? In terms of venue, volunteers were recruited through "repeated" notices to ex-gay religious ministries,

therapies, and political organizations that promote biasing conditions. Subjects were clearly not blind to the study's hypothesis or purpose and most, if not all, had compelling motivations to provide data that would prove the hypothesis correct. Indeed, subjects *could not* participate in the study unless their perceived experience supported the study's hypothesis. Thus, subjects had a strong desire to change (including 19% who were directors of ex-gay ministries or mental health professionals), strong desire to witness to others (e.g., 78% publicly spoke in favor of efforts to change homosexual orientation, often at church functions), strong desire to affirm their religiosity (93% reported that religion was "very" or "extremely" important to them), and strong desire to believe that their own conversion was successful. These biasing conditions are not conducive or even normative to scientific investigations. The intent to eliminate or at least reduce social desirability as a potentially damaging influence on the veracity of results is standard fare for scientific research and yet it appears that Spitzer did everything within his power to *promote* if not *ensure* his intended responses. Thus, it is exceedingly difficult to take at face value the independence of the study's data.

Spitzer himself recognized this point by acknowledging that "subjects' and their spouses' high motivation to provide data supporting the value of efforts to change sexual orientation" was present, but he concluded that it was unlikely that their reports were "biased due to self-deception, exaggeration, or even lying." If subjects were biased, according to Spitzer, they would have reported a "rapid onset of change," a "complete or near complete change in all sexual orientation measures," marital adjustment scores "higher than that of the normative reference group," and no gender differences. Although the study's findings were sufficient "at least to the author" to rule out systematic bias, Spitzer provided no empirical or theoretical support for the reasoning underlying these assumptions. Furthermore, his reasoning is not self-evident. For example, when lie/faking scales are integrated into questionnaires (e.g., the MMPI-2), degree of deception falls along a continuum and only rarely are subjects distributed at either pole. Spitzer assumed that bias must be conscious, intentional, and deceitful, but we know of no evidence supporting this perspective which, naively, discredits the psychological sophistication of his subjects and ignores the possibility that unconscious defense mechanisms (e.g., repression, suppression, denial) are operative. Indeed, given the nature of the subject pool, it would be surprising if subjects did *not* engage in data manipulation.

This subject selection bias might also have contributed to a memory bias that could have further generated inflated reports of change. To the extent that PRE therapy (average was 12 years before the interview) homoerotic feelings were emotionally disturbing, on recollection years later they would likely be remembered as greater or more omnipresent than they were at the time. When combined with a desire to minimize current homoerotic feelings, inflated PRE–POST differences might well be expected that would erroneously suggest greater reorientation change than that actually achieved. Also contributing to this expected inflation was Spitzer's reliance not on physiological measures of sexual orientation, which he recognized are rare in social science research, but on reports of behaviors and cognitions that are mostly under conscious control. Yet, comparing sexual behavior, attractions, masturbatory fantasies, and masturbatory orgasm fantasies, Cohen (1999) found that as same-sex attracted males progressed toward orgasm, and thus were less able to control fantasy content, greater quantity of homoerotic thoughts surfaced. This distinction becomes imperative when assessing subjects who find their homoeroticism exceedingly unacceptable and voluntarily attempt conversion by means such as intentional suppression. Thus, it is not surprising that Spitzer found the greatest change in those aspects of same-sex sexuality most under conscious control (behavior and identity), some change in sexuality under some control (attractions), and the least change in aspects least under conscious control (homoerotic content during masturbatory fantasies). Yet, even masturbation fantasy content must be carefully assessed. Spitzer accepted at face value claims of reduced homoeroticism and increased heteroeroticism during fantasies. Without probing, however, it is nearly impossible to verify the veracity of these claims because homoerotic content is easily obscured by heteroerotic images.

Finally, on another methodological note, it is curious that despite the reorientation power Spitzer ascribed to reparative therapy, he provided no credible evidence that therapy was actually the mechanism of reported changes. Although we contend that the study's design invalidates the data collected, if one were to believe the subjects' reports of changes in their sexuality, it would be just as valid (and perhaps more parsimonious, given prior research) to assert that numerous other uncontrolled, extraneous factors (e.g., time, history, maturation) significantly contributed to the "successful reorientation" changes during the *many* years subjects were in treatment. Given the myriad confounding variables that may have contributed to apparent therapy effects, including degree of homoeroticism, marital status, previous dissatisfaction with same-sex attractions, psychological vulnerability of subjects (depressed, suicidal, unhappily married, distressed by their sexuality, living a religious lie), church/therapy/ support group involvement, length of therapy, need to

proselytize, it is regrettable that Spitzer did not consider these possible contributors to reorientation. They might have explained more variance than the therapy itself.

In conclusion, a most basic and frequently documented lesson learned by sexologists investigating socially stigmatized populations cannot be overstated: Subject selection impacts research findings. As scientists, we must disbelieve Spitzer's data because they are so compromised by subject selection bias as to raise serious objections to any claims Spitzer might make about their meaning and generalizability. Research that cannot be applied to nonstudy participants is of limited utility in the social and behavioral sciences.

Reconsidering "Sexual Desire" in the Context of Reparative Therapy

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Clarifying the Question

First things first: Is Spitzer's study really "about" changing sexual orientation? In order to answer this question, we need to agree on a definition of sexual orientation and its defining criteria. But, of course, these issues have long been topics of heated debate (e.g., Bailey, 1995; Bem, 1996; Ellis, 1996; Golden, 1987; Rust, 1992; Veniegas & Conley, 2000). Is sexual orientation an innate sexual predisposition or a learned behavioral pattern? Does it primarily influence sexual desire or does it also shape affiliative preferences, affectional feelings, and gender-typed behavior? Such debates might seem shopworn at this point, but they are neither resolved nor irrelevant. To the contrary, the more we learn about the diversity of same-sex sexuality across different populations and contexts, the more we must regularly reevaluate our implicit and explicit models of this phenomenon and the hypotheses they prompt us to test.

Spitzer's central question—whether homosexuals can change into heterosexuals—presumes a fairly reductionistic sexual taxonomy that has garnered increasing scientific skepticism over the years. Kinsey et al. (1948) were perhaps the first and most famous to caution that "The world is not to be divided into sheep and goats" (p. 639) and empirical data increasingly buttress this perspective (Blackwood, 2000; Murray, 2000). For example, representative studies of American adolescents (French, Story, Remafedi, Resnick, & Blum, 1996; Garofalo, Wolf, Wissow, Woods, & Goodman, 1999) and adults (Laumann, Gagnon, Michael, & Michaels, 1994) have found that most individuals with same-sex attractions *also* report experiencing other-sex attractions, and both changes in, and disjunctures among, sexual behaviors, attractions, and identity are widespread (Baumeister, 2000; Diamond, 2000, 2003b; Golden, 1987; Pattatucci & Hamer, 1995; Rust, 1992; Stokes, Damon, & McKirnan, 1997; Weinberg, Williams, & Pryor, 1994).

Spitzer's research question and methodology do not acknowledge these complexities. Rather, he uncritically treats sexual attractions, fantasies, and emotional longings as coordinated indices of one's underlying "sheep" or "goat" status, despite the fact that (1) it is increasingly unclear whether these discrete types even *exist* as natural categories and (2) it is similarly unclear whether "sheepness" or "goatness" could ever be reliably diagnosed by coordinated and stable patterns of fantasy, desire, and affection. Given these problems, some researchers have argued that "it makes more sense to ask about specific aspects of same-gender behavior, practice, and feelings during specific periods of an individual's life rather than a single yes-or-no question about whether a person is homosexual" (Laumann et al., 1994, pp. 285–286). What, then, might we learn from Spitzer's study if we jettison extrapolations to "sexual orientation" and focus instead on domain-specific changes?

Interpreting the Findings: The Meaning and Experience of Desire

Unfortunately, a number of factors hamper interpretation of Spitzer's data, such as the significant and obvious problems of self-selection and self-report biases. Yet, I will leave aside these concerns, trusting that other commentators will address them in depth. Granting for the sake of argument that some of Spitzer's participants did, in fact, experience declines in their self-reported same-sex desires, how should we interpret such changes?

First of all, as noted above, the phenomenon of plasticity in sexual desire over time has already been documented in several prospective studies, and is not newsworthy in and of itself (Diamond, 2000, 2003b; Pattatucci & Hamer, 1995; Stokes et al., 1997; Weinberg et al., 1994). Spitzer, however, is more concerned with *effortful* changes effected through cognitive–behavioral strategies, such as "thought stopping," avoidance of situations that trigger same-sex attractions, and social support mobilization. Can these techniques actually alter one's subjective desires? Of course they can—just as attending Weight Watchers meetings and keeping "forbidden" foods out of the house can attenuate a dieter's natural, evolved cravings for salty, fatty, calorie-dense foods. Furthermore, any reader of

Shakespeare or Jane Austen will recognize that these cognitive and behavioral techniques have been used for hundreds of years by individuals who had the misfortune of becoming attracted to partners of the right sex, but the wrong family, wrong social class, wrong nation, etc.

Yet, we are already ahead of ourselves—this entire discussion skirts a far more important but unanswered question lying just beneath the surface of this and other studies of sexual orientation: *Just what do we mean by* "*desire*?" Given that sexual desire is generally considered the primary indicator of one's sexual orientation (Marmor, 1980), one might expect that researchers would have spent considerable time validating and cross-checking our conceptualizations and measures of its phenomenology, but this has not been the case. Instead, we typically ask respondents to estimate their balance of same-sex and other-sex desires without clarifying what types of experiences "count" as desire, naively assuming that (1) these experiences are fairly uniform from person to person and (2) we all "know them when we feel them."

Yet, qualitative research increasingly demonstrates that individuals have strikingly different personal definitions and experiences of "desire" and "attraction" (Diamond & Savin-Williams, 2000; Tolman, 2002), including, for example, "liking to look at a woman's face or body"; "the urge to have sex"; "a fluttery feeling in my belly"; "wanting to be physically near someone"; "not needing to care about her personality"; "feeling really really happy around someone"; "electric energy"; "wanting to talk all night long." Such ambiguity makes it impossible to reliably interpret self-report data on everything from "age of first attractions" to "ratio of same-sex to other-sex attractions" to—most notably—"stability of attractions."

Which types of feelings might Spitzer's respondents have been talking about? How might it influence our interpretation of his findings if, for example, an individual's "fluttery belly feelings" exhibited little change, but "liking to look at face/body" changed markedly? How exactly do these phenomena relate to the specific frequency with which one's sexual fantasies are populated with same-sex versus other-sex individuals? We currently have no empirical or theoretical basis on which to interpret such phenomenological nuances and their relevance for models of sexual orientation, just as we have long lacked clear-cut conceptualizations of the specific relevance of love and affection for such models (Diamond, 2003b). Without greater empirical and theoretical rigor, we will remain hamstrung in our attempts to interpret the causes and implications of *any* self-reported changes in same-sex sexuality.

Final Evaluations: What Gets Repaired?

Where does this leave us? Does reparative therapy work? What does it work *on*? On this point, it bears noting that perhaps the most salient and striking changes recollected by Spitzer's research participants concerned their overall happiness and self-concept. Prior to the therapy, they were bothered by their same-sex feelings, they were at odds with their own personal or religious beliefs, many were unhappily unmarried, and one third were suicidal. After the therapy, over 75% of the men and over 50% of women were married, less than 10% reported that they were still bothered by their same-sex attractions, and measures of "heterosexual functioning" (participation in a "loving" heterosexual relationship, regular and satisfying sex with partner, etc.) had apparently improved markedly.

Are these successful outcomes? For individuals embedded in social-relational contexts that fundamentally forbid same-sex sexuality and prioritize traditional marriage, how can they not be? Of course, such outcomes could have been achieved through therapeutic interventions *other* than effortful control, redirection, and reconditioning of sexual and affectional feelings; at the very least, these individuals might have attempted to change—or escape—their stigmatizing and restrictive social contexts instead of their sexuality.

But for some this is not an option. Living in Salt Lake City (the worldwide headquarters of the Church of Latter Day Saints), I have come to know numerous men and women who have struggled with the gulf between their same-sex sexuality and their passionate devotion to the Mormon faith, *both* of which may be experienced as inextricably woven into one's deepest sense of self. As long as some individuals' chosen communities (whether based on faith, ethnicity, geography, etc.) invalidate the possibility of living openly with same-sex desires, clinicians must develop, analyze, test, and validate different approaches for helping members of those communities to make peace with, and decisions about, their irreconcilably conflicting life choices and chances.

At the very least, our evaluations of "reparative" interventions must be scrupulously attentive to clients' motives and the unique nature of their experiences in order to guard against inappropriate generalizations about "sexual orientation." Studies such as Spitzer's provide valuable information about how individuals with stigmatized experiences actively manage those experiences, in concert with their own narratives of adjustment, coping, and personal growth. In the final analysis, however, such studies have little to tell us about "change in sexual orientation" or even "change in sexual desire." If anything, Spitzer's findings should prompt sex researchers to revisit our own

assumptions about the phenomenology and ontology of same-sex and other-sex desires, fantasies, and attractions in order to improve the validity and interpretability of future research on these phenomena over the life course.

The Spitzer Study and the Culture Wars

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On May 9, 2001, Spitzer presented the current article, in oral form, at the annual meeting of the American Psychiatric Association (APA) in New Orleans and created an international media sensation (Lund & Renna, in press). With the study's publication, history may repeat itself. Given the manner in which subjects were recruited, much of this study's social impact hinges on whether or not one believes their accounts. Spitzer not only believes his subjects, he offers his own belief as "evidence" that some people can change a homosexual orientation.

Although he is not a sex researcher, the media is interested in Spitzer's beliefs because of what he symbolizes. In the 1970s, he served on the APA's Task Force on Nomenclature and Statistics, which recommended to the Board of Trustees that they remove homosexuality from the DSM. When the Board did so, dissenting psychiatrists, mostly psychoanalysts, petitioned the APA to hold a membership referendum on the matter. The APA membership voted to support the Board (Bayer, 1981). Although many psychiatrists were involved in that process over several years (Robert Campbell, Lawrence Hartmann, Judd Marmor, Richard Pillard, and John Spiegel, to name a few), Spitzer was singled out as a favored bête noire of the dissenters (Socarides, 1995).

In the following decades, these dissenters were gradually marginalized from the mental health mainstream. In the early 1990s, however, some began to speak publicly—both to and as representatives of—segments of society which regard homosexuality as an unacceptable form of social expression. In the contemporary debate known as the "culture wars" (Drescher, 2002a, 2002b; Dreyfuss, 1999; Shidlo, Schroeder, & Drescher, 2001), the clinical argument that homosexuality is an illness meshed seamlessly with a social-conservative, political message: Heterosexuality is the only normal expression of human sexuality and accepting homosexuality is harmful to society (Socarides, 1994).

These clinicians' antihomosexual arguments, however, are not directed toward a mental health mainstream which vigorously supports gay and lesbian civil rights, but toward lay audiences and policy makers (Lund & Renna, in press). They are intended to counter growing public and political acceptance of homosexuality by challenging the popular belief that homosexuality is "biological" and "immutable." The recitation that one is not "born gay" because some people can change sexual orientation has become a mantra of those opposed to civil rights protections for gay men and women. Despite its religious roots, however, this movement does not use religion alone to deliver its antihomosexual message. Using the model of creation scientists (Tiffen, 1994), groups like the National Association for Research and Therapy of Homosexuality (NARTH) cite scientific data selectively to support their theories regarding the causes and treatments of homosexuality.

NARTH members have argued on the op-ed page of *The Wall Street Journal* that individuals unhappy about their homosexual feelings should have the right to seek treatment for change (Socarides, Kaufman, Nicolosi, Satinover, & Fitzgibbons, 1997). Their claims of supporting homosexual civil rights notwithstanding, sexual conversion therapists filed affidavits in support of Colorado's antigay Amendment Two (Socarides, 1993). They also supported unsuccessful defenses of sodomy laws in Tennessee in 1995 and Louisiana in 1998 (Cohen, 1998a, 1998b). Why do these therapists want to criminalize homosexuality, even though they believe it to be an illness? NARTH's current President says, "We believe harm would be done if our laws were to affirm homosexuality as indistinguishable from heterosexuality" (Nicolosi, 2000).

So what does this have to do with Spitzer's study? Spitzer's revamping of the American psychiatric diagnostic system in the *DSM-III* (American Psychiatric Association, 1980) gave him a standing among the international scientific community that no sexual conversion therapist has ever achieved. And, although once reviled by reparative therapists as "someone who crosses far over the line, from science to open advocacy of a political position" (Socarides, 1995, p. 166), antihomosexual social forces now seek to harness Spitzer's reputation—and the media attention he attracts—to legitimize their own.

And why so much media attention to this study? At the 2001 meeting of the APA, before Spitzer even presented his preliminary findings, conservative political groups used the event to put out the message to the press that the man who had removed homosexuality from the DSM had changed his mind. However, the media message was ambiguous—perhaps deliberately so—and it was not entirely clear what Spitzer had changed his mind about! It was the public relations machine's implicit message—that Spitzer had changed his mind about homosexuality not being an illness—which drove the media frenzy around his study and left scores of mental health professionals scrambling to respond to misleading headlines.

Buried in the small print, however, was Spitzer's now-official change of view: "Like most psychiatrists," says Dr. Spitzer, "I thought that homosexual behavior could be resisted—but that no one could really change their sexual orientation. I now believe that's untrue—some people can and do change" (Nicolosi, 2001). The story here is obviously Spitzer's change of heart. But did he actually change his mind?

It seems unlikely since, in 1973, it was Spitzer's suggestion that the *DSM-II* (American Psychiatric Association, 1968) replace homosexuality with a new diagnosis, sexual orientation disturbance (SOD). According to SOD criteria, only those "bothered by," "in conflict with," or who "wished to change" their homosexuality had a mental disorder. SOD, however, had two conceptual problems. First, the diagnosis could apply to heterosexuals, although there were no reported cases of unhappy heterosexuals seeking psychiatric treatment to become gay. In 1980, with Spitzer chairing the Task Force on Nomenclature and Statistics, SOD was modified in the *DSM-III* and replaced by ego-dystonic homosexuality (EDH). This new diagnosis, however, did not resolve the second, thornier issue of making patients' subjective distress about homosexuality the determining factor in making a diagnosis. Although SOD and EDH were a compromise in the 1973 debate, they were incongruous with an evidence-based approach to psychiatric diagnosis. In 1987, with Spitzer's reluctant approval, EDH was removed from the *DSM-III-R* (American Psychiatric Association, 1987; Krajeski, 1996; Spitzer, personal communication, January 23, 2003).

If Spitzer did not previously believe in the possibility of changing homosexuality, why did he invent the DSM disorders of SOD and EDH? In 1984, I heard Spitzer speak at a New York conference on homosexuality where he defended the still-extant EDH diagnosis, saying "If a guy comes to me and says he wants to change his homosexuality, I believe he should have the right to try and change." Thus, despite what the conversion therapy publicists would have the media and the public believe, it seems unlikely that Spitzer himself has undergone the conversion he now claims. Clearly, he has always supported trying to change same-sex attractions.

In 1965, songwriter Tom Lehrer wrote, "Once, the rockets are up who cares where they come down/that's not my department." Anecdotal reports of harm done to patients is the reason the American Psychiatric Association (2000) deemed conversion therapies unethical. However, Spitzer dismissed this issue, stating he did not interview anyone who was harmed (cf. Shidlo & Schroeder, 2002). However, the question has been raised whether researchers should consider any potential social harm which might arise from their scientific research (Byne, Schuklenk, Lasco, & Drescher, 2002). To his credit, Spitzer has been willing to speak out against political misuse of his study. In September 2001, the Finnish Parliament debated a bill intended to grant same-sex couples the right to civil unions. With opponents of the bill citing Spitzer's study as "proof " that homosexuality could be changed, Spitzer's letter to the Finnish parliament was published in a major Finnish newspaper. Spitzer explained that while his report was "based on a very unique sample," such results "are probably quite rare, even for highly motivated homosexuals" (Hausman, 2001). He added in his letter to the parliament member that "it would be a serious mistake to conclude" from his research that homosexuality is a "choice." He emphasized that he is concerned with "scientific issues" related to sexual orientation, and that he "personally favor[s] antidiscrimination laws and civil unions for homosexuals" (Hausman, 2001).

After Spitzer's intervention, the Finnish civil unions bill passed (Stålström & Nissinen, in press). With the publication of his study, one can only hope that when Spitzer's "rockets" land elsewhere, he will find ample time and opportunity to respond to those situations as well.

Sexual Orientation Change: A Study of Atypical Cases

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This study must be understood in historical and sociocultural context.

Antihomosexual Bias

Although antihomosexual bias has recently diminished, much work remains to be done in order to eliminate it entirely. The mental health professions have been helpful in combating discrimination. However, for many years they were unfortunately responsible for adding fuel to the prejudicial fires. In the first edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM; American Psychiatric Association, 1952), homosexuality was included in the category of Sociopathic Personality Disorders. At that time, the view of the psychiatric establishment was that a person who was homosexual inevitably had a defective conscience. The second edition of the DSM (American Psychiatric Association, 1968) included it with the sexual perversions, such as pedophilia, sexual sadism, and fetishism. Public policy decisions were made on the basis of these clinical judgments. These decisions adversely influenced the lives of gay/lesbian people and contributed to negative stereotypes depicted in the media (Gonsiorek & Weinrich, 1991).

During the decades following World War II, homosexual desires were believed to be symptoms motivated by unconscious irrational anxiety about heterosexuality. It was thought that psychotherapy would cause these fantasies to melt away and the patient would become heterosexual. Universal heterosexuality was seen as biologically based and normative (Bieber et al., 1962; Socarides, 1978). This model rested on a scant data base, but was accepted not only by most psychoanalysts, but by most psychiatrists, psychologists, and other mental health professionals. Hooker's (1957) well known study of socially well-adjusted homosexual men demonstrated that unconscious conflicts attributed by most psychotherapists to homosexuality per se were, in fact, not demonstrable among *nonpathological* homosexual men. This research dramatized the necessity to distinguish between clinical and nonclinical samples in conceptualizing sexual orientation.

Perhaps more to the point of the Spitzer study, data about the frequency of change of sexual orientation as a result of psychotherapy were also lacking. In his article, Spitzer cites Bieber et al.'s (1962) outcome data. There are two aspects of the study by Bieber et al. that warrant commentary. The first is that the investigators studied overt sexual behavior and not fantasy; hence, the outcome data refer to heterosexual competency but not heterosexual/ homosexual desire. Secondly, the majority of patients in the Bieber et al. study who were predominantly or exclusively homosexual did not, in fact, become predominantly or exclusively heterosexual. Interestingly, Freund (1963, 1971) also observed that in a laboratory setting some homosexual men could voluntarily alter penile responses to respond to heterosexual stimuli. Both Bieber et al.'s and Freund's data suggested that a minority of men may have some degree of plasticity of response to an erotic stimulus. Although the entire body of literature prior to the Spitzer study has many defects, it suggests that for *most* men, homosexual orientation is more or less fixed, but that for some—almost certainly a small minority—it seems more plastic. More women appear to be plastic with respect to erotic stimuli than men (Baumeister, 2000). Hence, more women than men would be likely to have the capacity to alter sexual orientation in response to some type of intervention.

Reparative Therapy

Nicolosi (1991) hypothesized that homosexuality was a reaction to a defect in the masculine self. Nicolosi's clinical experience was based on patients who were frequently devout Christians and who sought to change their sexual orientation either for religious reasons or because they disapproved of a "gay" lifestyle. Like the orthodox psychoanalysts of the 1950s and 1960s, Nicolosi used clinical samples to make generalizations about all homosexual people. By the 1990s, however, ideas about homosexuality generally accepted by mainstream mental health professionals, including psychoanalysts, had changed (Friedman, 1988; Isay, 1989; Marmor, 1980). The pathological model of homosexual orientation had been or was soon about to be repudiated by the vast majority of psychotherapists. Moreover, it had become apparent that many patients had suffered harm because of misguided efforts to alter their fixed sexual orientations (Duberman, 1991). I have seen many such patients in consultation over the years. The idea that homosexuality generally is a product of a masculine self-defect was abhorrent to many and reparative therapy was strongly criticized by mental health professionals (American Psychiatric Association, 2000). A belief became increasingly popular among therapists that a homosexual orientation should always be considered normal and that attempts to change it ill-considered and even unethical.

Homophobia and Internalized Homophobia

Patients who seek reparative therapy have a conflict between their erotic desires and conscience/value systems. In order to understand this group from a clinical perspective, it is necessary to have a sociocultural and historical grasp of homophobia, and a psychodynamically informed understanding of "internalized homophobia." The latter term refers to negative internalizations about being homosexual that become part of the self concept during development as a consequence of interactions with homophobic/heterosexist others (Malyon, 1982). Limitations of space interdict extensive discussion of these topics here, and we refer interested readers to Friedman and Downey (2002) and Herek (1996). Suffice it to say that for many nonheterosexual people, the primary psychopathological problem is not with their sexual orientations, but rather with rigid, irrationally punitive superegos formed during childhood which undermine the well-being of the older person. Most such people can be helped by gay affirmative psychotherapy and some by more exploratory dynamic psychotherapy. During therapy, sexual orientation does not change, but the person's pathological conscience structure is modified to be compatible with his or her present life philosophy. A different clinical subgroup, however, consists of people—often religious fundamentalists—whose value systems are not compatible with a homosexual orientation. These people reject the suggestion that their values should be modified, and insist on their right to personal/religious values that are not gay affirmative—or are even antigay affirmative. It is primarily from a *subgroup* (e.g., positive responders)

of these individuals that Spitzer found volunteers for his investigation.

The Spitzer Study

In order to appreciate the contribution of this investigation, it is necessary to have a clear idea of its limitations. The study did not assess the techniques of reparative therapy itself. The particular sample reported on was not representative of those who seek such interventions. The research was not designed to ascertain the effectiveness of reparative therapy nor did it assess complications resulting from such intervention. It is possible, for example, that most people who requested the intervention were either not helped by it or actually harmed in some fashion. The design of the study was such that these issues were intentionally not addressed. As a single point study of people selected to have benefited from the treatment, the sample was obviously highly biased. The data base reported on in the study therefore does not support any generalizations about reparative therapy per se. Spitzer cites estimates of success in sexual orientation change by Socarides and Nicolosi, but their global impressions do not meet scientific standards for acceptable data.

The Usefulness of the Study

This is an investigation of sexual histories taken in a detailed and systematic manner of an unusual sample. It has three major strengths. First, the structured interview used is comprehensive and carefully constructed. Second, the data are available and open to inspection by others. This type of transparency and sharing of information is a welcome advance, supporting scholarly values at a time when political correctness often dominates academic discourse. Finally, the data support inferences already available to therapists and scientists but obscured by controversy. Some degree of plasticity with respect to the object of sexual desire appears possible for some people. This was already known by the scientists and clinicians, but because the possibilities for abuse of the majority through misguided application of "reparative" principles has been so great, this point has recently been obscured. Scientific and clinical judgment suggest that even among a delimited universe of highly religious men, meaningful change is probably impossible for most. The small minority for whom such change is possible, however, have rights and the subgroup of that minority who have psychiatric disabilities also have clinical needs which must be appropriately responded to by therapists. The needs and attributes of this minority, however, must not be taken as applicable to those of most gay/lesbian people.

Conclusion

Systematic investigation of unusual cases has always been an integral part of academic–clinical work. The findings of the Spitzer study are part of this tradition. The fact that this research was carried out is even more important than its findings. It is necessary for reasoned inquiry to proceed during periods of social unrest when pressures towards censorship are particularly great.

The Politics of Sexual Choices

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The decision, recorded in the article by Spitzer, for people who have a well established history of sex with persons of the same gender to seek professional help and religious encouragement to start a life of having sex with persons of the other gender, becomes remarkable only in particular political and scientific circumstances. I will not discuss the methodology or substance of the article in any detail. This will undoubtedly be the topic of a number of other commentaries. My concern is how the political and scientific contexts shape the way in which individual changes in gender preference in erotic relationships are understood. Only two comments about the changers—the folks who made the change seem to have done so for reasons that have to do with becoming more conventional in their social performances rather than for a more satisfying "sexual," in the narrow sense, life. And it may well be that the amount of "sturm and drang" involved is a function of the moral condition (which is a consequence of its political status) of their prior sexual lives—sinners always proclaim the difficulty of giving up their sins as they return to the moral community, in this case the moral community of straightness.

Let me first address the problem of politics. There are those who believe that it is possible to study "homosexuality" without addressing the political context of their research, but I am not one of them. Although there is survey evidence that antigay prejudice is less than it once was, there still remains a substantial number of persons who are actively antigay and a still larger number whose latent antigay sentiments can be mobilized by provocative political campaigns. At the present time, important positions in the U.S. federal government are occupied by persons of these antigay persuasions.

Many gay men and lesbian women feel threatened by these circumstances. These fears are not fanciful. Thus, the availability of programs to "help" persons who are unhappy with the fact that they are having sex with persons of the same gender can reasonably be construed as the beginning of the proverbial "slippery slope." A slippery slope that may lead to the prescription of behavior change programs for all persons who continue to maintain a sexual life with partners of the same gender. This appears to be the most benevolent option.

This is the political context. A number of antigay folks feel that having same gender partners is both sinful and psychologically pathological and they are actively seeking to make folks who have same gender partners sufficiently unhappy that they will try to change the gender of their preferred sexual partner.

Let me use an analogy. Consider being Jewish. As with a preference for a same gender sexual partner, being Jewish is for the child who grows up in a Jewish family "un-chosen." Even when surrounded by Christians (or Muslims or atheists), being Jewish, for the growing child, is part of the natural order of things. At some point, the young person realizes that there is a political context around being a Jew, that there is a cost to this "un-chosen" preference. In less politically fraught circumstances, this may only result in housing or work discrimination; as the level of fraughtness increases, it may result in forced conversion to the majority religion (or even "voluntary" conversions—see the composer Arnold Schoenberg or the philosopher Karl Popper—or simply name changing to avoid identification by hostile others) or in most terrifying circumstances, being exterminated in camps constructed for the purpose.

So Jews are anxious about the survival of their practices (and, in certain circumstances, their very selves.) They worry about "Jews for Jesus," they are concerned about political attacks on the State of Israel, and they discuss rates of marital exogamy as threats to the existence of Judaism. One may differ about the level of danger, but one cannot quarrel with the notion that this small minority that has been victim of systematic and murderous persecution has the right to feel nervous about the intentions of the majority.

Men who have had sex with persons of the same gender have had similar experiences with these practices (from discrimination to mass murder in Germany, but with discrimination to imprisonment and state encouraged violence in other countries). Prejudice against lesbian women has not been as intense, but antilesbian practices have been both common and in many cases violent.

So that is, in brief, the political context.

And now for the issue of rates of change between one significant social practice to another. A change that occurs within the political context has to be understood within that context.

Human beings change their membership groups at very high rates and often do so with great success (and such changes usually occur in coercive political and economic circumstances). Thus, vast numbers of persons from very different "native" cultures have crossed national borders and have become, for the most part, satisfactory members of the new cultures to which they have moved. In the nineteenth century, millions of rural, non-English speaking peoples, who often lived in societies with quite different political, economic, religious, reproductive, and sexual regimes moved to the United States, learned to live in urban settings, operate in a market economy, work in factories, tolerate other religions, reduce their family size, change their sexual lives, and give up one language and learn another. For some, it took three generations to become "Americans"; some never succeeded and fell afoul of the prisons and the mental hospitals, others went home (in the millions), but most became "Americans" (indeed some so quickly succeeded that positive programs of discrimination in elite universities had to be created to prevent them from succeeding). All found themselves both objects of oppression and discrimination as well as enlightened attempts to "Americanize" them, both of which shaped their individual and collective adaptations.

Becoming an American was not an easy task and many worried about the abandonment of old ways. The compound names for most American ethnic groups (Irish-Americans, German-Americans, Japanese-Americans, and the like) reflect both collective and individual ambivalence about becoming American. Marrying out of the group was one of the great markers of the betrayal of the old and the triumph of the new. Marriage across ethnic, religious, skin color, and class lines were the central dramas of the American cinema of the 1930s. The lament of mothers and fathers as they watched their children rise in the world and abandon them, their religion, and their views of family life is a chronic dirge in the American story. Even in the present day, the notion of "giving back to the community," which is ritual expectation of members of minority groups who are becoming Americans, is a measure of the attempts of an older, usually oppressed social world, to hold on to their members.

But what does this example of culture change have to do with sex, particularly that aspect of sex which has to do the gender of the partner one prefers (a.k.a. homosexuality and heterosexuality)? If one believes that sexual partner preferences are fundamentally different than all other preferences, a position marked the choice of the phrase "sexual

orientation" or the belief that there is direct pathway from a gene (or complex of genes or mixture of chemicals) and the like to desiring to have sex with someone who has similar genitals, the answer is nothing. But, if you believe, as I do, that the complex of sex practices is learned in a particular historical and cultural situation, then the idea of comparing sexual practices with other social practices is not very mysterious.

It is clear from the Spitzer study that some persons who have long (and perhaps exclusive) histories of sex with same gender partners move, often with religious and other "therapeutic" supports, to lives in which they have sex with persons of the other gender. From prior studies, we know that substantial numbers of persons who have had long (and perhaps exclusive) lives with partners of the other gender have voluntarily (sometimes describing the experience as finding their true selves) and sometimes with therapeutic support to lives in which they have sex exclusively or nearly exclusively with persons of the same gender. This movement back and forth in partner preferences is not unexpected given the general movement of humans from one to another deeply seated and "un-chosen" life way or practice.

Most of our early life is "un-chosen." We learn whatever is expected of us, sometimes well, sometimes poorly, sometimes we learn what adults want of us, sometimes we learn the opposite. Religious parents raise atheists as well as believers, parents raise children who speak English, who then learn French and emigrate, working class parents raise children who go to Harvard and learn to exploit the working class, rich parents raise children who become communists. These are all minority outcomes, but they happen. If you believe, as I do, that language, religion, and gender learning are as deeply embedded in a person (as un-chosen, if you will) as the specific sexual preference of the gender of the sexual partner, then in adulthood when some ways of life seem uncomfortable and choices are apparent (sometimes hard choices), it is not surprising that changes take place.

It is the politics of the change that shape most of the debate. The actual process is quite understandable and expectable. Whether such change should happen, what direction it should take, whether it should be encouraged, and who should decide whether it is a good or bad thing for either individuals or communities is the political question.

Too Flawed: Don't Publish

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I think Spitzer's paper is too flawed to publish, and is likely to do harm. Yet, here it is, being published.

The area of change in sexual orientation is an interesting one, worth study, and one where little is known, but where many think they know, and where many have passionate commitments to what they think they know. The area is embedded in so much context, history, bias, passion, self-delusion, and even lying that it deserves a higher level than Spitzer provides of careful and detailed openness, skepticism, and multiple levels of scrutiny.

There are too many problems, major and minor, in the article to discuss in reasonable detail in a brief commentary. I will touch on only a few below. Some of the problems are technical; others are of emphasis or skepticism, of definitions, of numbers, and of ethics. Some of these problems were pointed out to Spitzer by many very critical peers when he presented the paper at a May 2001 panel at the meeting of the American Psychiatric Association. He has not fixed them. The article remains a failure at establishing what it says it establishes: that some gay people can be changed to straight.

One might, from this article (from some of its interesting and energetic outreach attempts, data, careful-looking psychiatric research apparatus, and discussion of possible problems), and from my numerical calculations below, legitimately conclude that a *minute* number of gay people *may* be able to change their sexual orientation somewhat in some way, *perhaps related to* interventions designed to help them change. Modesty and accuracy demand "may," not "can," and "perhaps related to," not "caused by." And a *minute* number is a key element in this potential legitimate conclusion—and that is very different from the loose common word "some." (That the vast majority of gay people probably cannot change orientation is essentially left out of this study).

Spitzer rightly recognizes that credibility of his subjects is a basic and significant potential problem, but I think his statements are rather naive and under-concerned about that. Also, the selection of subjects is worth far more scrutiny than it gets. A study designed around the question "Can I find any people who say 'x' about themselves?," especially in an area people feel strongly about and have fought about—such a study is particularly vulnerable to (and pretty much invites) pressure, distortion, bias, self-delusion, and lying. Spitzer does not protect adequately against this, as even he seems to know.

Selection/inclusion criteria and procedures are not made clear enough. There was no prospective study. No controls. No independent observations or measurements at all: physiological, psychological, social. Spitzer relies wholly on self-reporting and on one 45-min telephone

interview. That is understandably convenient and cheap, but allows rather easy evasion, distortion, and lies.

A differently cogent matter: Spitzer nearly never puts "reparative therapy" in proper distancing quotation marks. That is, he repeatedly takes a strong side on the central question he is ostensibly studying. (To many colleagues, "reparative therapy" is neither reparative nor therapy; it is, rather, destructive pseudotherapy; but relatively neutral words would have been possible, such as "intervention aimed at changing sexual orientation," or, simply, "reparative therapy" in quotes). Spitzer also seems implicitly to accept, uncritically, the high percentages of cure or change estimated by the rather notorious Bergler, Socarides, and Nicolosi (which are widely considered unreliable, probably wishful at best, and much exaggerated).

Another matter, and one of several ethical issues: Spitzer stated that he found no evidence of harm of "reparative therapy" in these 200 people. That is misleading and breathtaking in its blinkered view and its omission of the relevant groups: (1) the many more (10 times as many? 100 times? Far more?) who have had some form of "reparative therapy" and who do not think it helped them. In addition to recent less-than-pleased-or-changed ex-patients of "reparative therapists," excluded by Spitzer, how many gay or bisexual people were in analysis or dynamic psychotherapy heavy with "reparative" elements from, say, 1930 to 1980 or 1990? These should be looked at carefully for harm. I know many, and I have treated several. And (2) the wider population at large, straight and gay. Most mental health professionals I know consider that the semisanctioned existence of "reparative therapy" probably harms millions of nontreated gay people.

There is inevitably continual spillover from "reparative therapy's" narrowly defined into (1) many psychotherapies (much psychoanalysis and dynamic psychotherapy of the twentieth century contained significant doses of such spillover and "therapeutic" first cousins) and (2) public policy, law, values, definitions of illness, etc. Even if "reparative therapy" helps a few people in some ways, as I think it may, it nearly certainly harms a far larger number of people, and that is a major ethical issue relevant to Spitzer's study but apparently not seriously considered by him.

Then numbers: One large aspect of the study pretty well *proves* just about *the opposite* of what it says it shows. Spitzer scoured the United States for several years ("actively for 2 or 3 years," he told me in 2001). He is an experienced social-psychiatric researcher attached to a major university, and he went energetically and repeatedly to all the antigay groups he could find: to the National Association for Research and Therapy of Homosexuality (NARTH), to all the religious change-gay-to-straight programs he could find, all the "reparative therapists" he could find, in all the United States, to find all the gay-to-straight ex-patients he could find. That yielded about 200 people he felt could be used for his study. 200. Let us leave aside for the moment that, in my fairly educated view, I suspect that of the 200 many were heavily biased, and were probably distorting and/or lying, since there was clearly pressure on many to do so, and nearly certainly many had some coaching as to how to do so. Spitzer's idea that it was probably proof of reliability that many said they had only partly changed seems to me wishful and naive. But even if I am very dubious about many of them, 200 is the number Spitzer offers.

Numbers matter. Two hundred out of how many? Taking the United States population over the age of 18 at about 210 million, and taking the gay population (never precisely definable but still estimatable) as about 3–10%, that gives us a figure of about 6–21 million gay people in the United States. Spitzer, after 2 or 3 years of energetic research seeking, found 200 possible sex-orientation-changed people out of 6–21 million gay people. That means we are talking about possible changes in not 1%, not one tenth of a percent, not one hundredth of 1%, but about one one-thousandth of 1% (.000009–.00003) of the adult gay population. If any form of cancer had a cure rate of one in 100,000, that would not be called evidence that that cancer is curable; rather, to call it curable on that basis would be considered a cruel delusion and false promise.

As a further relevant issue of numbers, consider bisexuals. There are probably millions of Americans who are, by generally acceptable if imprecise criteria (e.g., postpubertal behavior, feelings, fantasies), bisexual. For reasons little understood, a great many of them vary in their sexual behavior styles and/or enthusiasms from one point in their lives to another. Certainly many thousands or hundreds of thousands are more heterosexual now than they were a few years ago, and certainly many thousands or hundreds of thousands are more homosexual than they were a few years ago. Nearly certainly, many thousands of such people are in some form of psychotherapy, and of those, some probably attribute various changes in themselves to the therapy. That little understood area alone would be expected to produce far larger numbers of what may look like changes in sexual orientation than Spitzer's 200. And Spitzer does nearly nothing to acknowledge or help understand this area or to note that it vastly overshadows his 200.

The context of possible changes of sexual orientation is heavy with the history of demonizing, criminalizing, pathologizing, scapegoating, guilt-inducing, and otherwise socially, economically, physically, and emotionally harming—not hundreds of people but millions. Much

of that, even if more subtly than in some past times and places, still goes on now in much of the world, and in much of the United States. That matters, and Spitzer largely ignores it.

Spitzer's article implies, without solid scientific support, something that has great and perhaps all-but-irresistible appeal to the popular press, to many politicians, and to many members of the public: that therapy can change gayness to straightness. Spitzer alerted the popular press before presenting part of this paper at the meeting of the American Psychiatric Association in 2001 and the popular press did some harm then. It is very likely to do more harm now, with the study's publication.

Spitzer's article, for all its dignified-looking data, scientific journal format, and partial disclaimers, is in essence irresponsible and unscientific. It does not constitute scientific evidence that gayness can be changed.

Evaluating Interventions to Alter Sexual Orientation: Methodological and Ethical Considerations

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Consider this scenario:

A pharmaceutical company claims its new dietary supplement can change left-handed people to right-handers. Medical associations oppose the supplement on the grounds that it harms many people who use it. Noting that there is no reason for left-handed people to try to change, they urge their members not to recommend or administer the product to their patients. To test the drug company's claim, a researcher conducts brief telephone interviews with self-proclaimed "ex-lefties." He recruits respondents mainly through the drug company, which promotes his study to individuals who have given public testimonials about the product's effectiveness. They say they tried the supplement because they felt miserable as left-handers in a right-handed world. Most claim they now function as right-handers, although many report occasional thoughts about using their left hand and some occasionally lapse into left-handedness. The researcher's findings are based entirely on the one-time interviews in which he asked the ex-lefties to rate their handedness prior to taking the supplement (12 years earlier, on average) and during the previous year. Respondents' ratings of their past and current handedness are significantly different. The researcher concludes that the supplement does indeed change left-handers to right-handers in some cases. Meanwhile, other researchers and clinicians report anecdotally that the food supplement does not change most left-handers to right-handers, but many who tried the supplement report serious negative side effects.

The main questions raised by this hypothetical story concern whether the researcher's data are valid, whether the product's harmful effects would justify its use even if it is sometimes effective, and why left-handers should be encouraged to change in the first place. Similar questions arise from Spitzer's study of self-reported change from homosexuality to heterosexuality following participation in an intervention. Because of space limitations, this comment discusses only four of the many criticisms that can be made of Spitzer's article.

Reliance on Self-Report

Spitzer's data are ultimately the testimonials of a highly select sample of activists from groups whose *raison d'etre* is to promote efforts to change homosexuals into heterosexuals. It is difficult to imagine how his recruitment strategy would have yielded anything other than reports of substantial shifts to a heterosexual orientation. Despite his acknowledgment of its serious methodological inadequacies, Spitzer asks readers to take it on faith that his respondents were both willing and able to report accurately on their past and current thoughts, feelings, and behaviors.

This represents a curious abdication of the scientist's obligation to design a study in a way to avoid known sources of bias. Recognizing that even subtle and unintentional biases can affect the data, researchers routinely adopt elaborate safeguards to prevent their own expectations and those of their research subjects from affecting a study's outcomes. Spitzer's study lacked such safeguards, despite the obvious threats to validity inherent in his sampling procedures.

Even if Spitzer's respondents sincerely tried to give true accounts of their feelings and daily behaviors from (on average) 12 years prior to the interview, their reports cannot be assumed to be reliable. People often are inaccurate when recalling earlier mental states, especially when their emotions, goals, or beliefs have changed in the interim (Levine & Safer, 2002). Memories of past beliefs, attitudes, and behaviors are affected by many factors, including personal theories about one's own behavior change over time (e.g., Ross, 1989). For this reason, asking research participants to recall their preintervention thoughts and feelings is always problematic, even when they are unaware of the study's purpose and have no ideological stake in its outcome. Given the inherently biased nature of Spitzer's sample, his failure to make even minimal attempts to assess the data's reliability (e.g., by assessing internal consistency within interviews and through follow-up interviews) and validity (e.g., through

third party ratings or independent personal interviews with the respondent's spouse) seriously compromises the study.

Conclusions About Causation

The title of Spitzer's paper is somewhat misleading. Few would dispute that some people's sexual orientation changes during their lifetime. Indeed, many lesbians and gay men report living as a heterosexual before recognizing or developing their homosexual orientation. The question at issue is not whether sexual orientation can change but whether interventions can be designed to bring about such change.

Spitzer's methodology is incapable of answering this question. Even if we were to accept the respondents' self-reports as valid, simply asking people why they changed their behavior cannot establish what caused that change. Personal testimonials for the benefits of useless treatments abound. Some people genuinely believe that crystals healed them, laetrile cured their cancer, a psychic foretold their future, or a fad diet reduced their weight. Scientists, however, recognize that testimonials do not prove that an intervention works. People who undergo an intervention are often highly motivated to attest to its effectiveness. Their willingness to overstate (or actually lie about) its benefits is greater still when they have a financial or ideological stake in the intervention's success. Even when respondents sincerely attempt to be accurate, they (like all of us) remain unaware of many of their mental processes and, consequently, their accounts of the causes of their behaviors are not always reliable (e.g., Jacoby, Lindsay, & Toth, 1992; Nisbett & Wilson, 1977). This is why we use experimental designs to determine causation.

At most, Spitzer's data could demonstrate a correlation between reporting change and undergoing an intervention. Spitzer argues that a rigorous experimental study would be expensive and would take a long time to complete. These inconveniences, however, do not justify his ignoring the fact that a correlation does not establish a causal relationship.

Risk and Harm

The hypothetical dietary supplement posed substantial risks to users. So do interventions to change homosexual orientation. As he acknowledges, Spitzer's selection criteria excluded those who had tried to change their sexual orientation without success. He dismisses those "failures" as outside the purview of his study, since his intention was to document that interventions change some homosexuals into heterosexuals. But just as with the hypothetical dietary supplement, the question of harm is important. To be sure, the risks associated with interventions to change homosexual orientation have not been experimentally demonstrated either. Concerns about such risks are based on anecdotal accounts from clinicians and self-reports by individuals who were subjected to the interventions (e.g., Haldeman, 2001; Shidlo & Schroeder, 2002).

Nonetheless, the standards for demonstrating harm are different from those for demonstrating efficacy. If harm seems to be at all likely, we have an ethical obligation to investigate the actual risk to patients before offering them an intervention. Indeed, clinical trials are structured to establish a treatment's safety before testing its efficacy. And if risks of harm exist, we must consider whether they are offset by the intervention's potential benefits. These considerations are reflected in the resolutions concerning sexual orientation change interventions passed by both the American Psychological Association and the American Psychiatric Association. Although Spitzer's article refers to those resolutions, he ignores the issue of harm except to note that (not surprisingly) his subjects did not report having experienced it.

Homosexuality Is Not an Illness

We recognize today that trying to change left-handers into right-handers is misguided. Left-handedness is not an illness. Neither is homosexuality. Yet, antigay activists promote a belief in homosexual-to-heterosexual "conversions" with missionary zeal. Why? A key reason is that an unpopular status or condition is more readily stigmatized to the extent that it is perceived as freely chosen. Recent religious campaigns selling so-called reparative therapy perpetuate the myths that homosexuality is a sickness and that gay people can (and should) become heterosexual. They are mainly about reinforcing the stigma experienced by gay men and lesbians, and blocking attempts to secure legal protections from discrimination on the basis of sexual orientation.

This is not to argue that Spitzer conducted his study to foster antigay stigma. But his article is oddly insensitive to this issue. Although he notes in passing that sexual orientation change "may be a rare or uncommon outcome of reparative therapy," it seems inevitable that activists from NARTH, Exodus, Focus on the Family, and similar groups will attempt to use the study to support their political agenda.

Conclusion

Spitzer's study is methodologically flawed and disturbingly silent about ethical concerns. It is disappointing that the *Archives* elected to publish it.

Guttman Scalability Confirms the Effectiveness of Reparative Therapy

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Spitzer presents compelling evidence that a homosexual orientation can be changed to a heterosexual orientation by reparative therapy. The best of evidence is found in changes following reparative therapy in (a) homosexual sex, (b) homosexual self-identification, and (c) homosexual attractions and fantasies. In this commentary, I will focus on the more dramatic results for men, although the results for women also support the effectiveness of reparative therapy.

Most therapists would agree that it is easiest to lower or eradicate participation in homosexual sex, somewhat harder to change self-identification from homosexual to heterosexual, and hardest of all to lower or eradicate homosexual attractions and fantasies. In Spitzer's study, changes in sexual behavior, self-identification, and attractions and fantasies toward a predominately heterosexual orientation confirm this expected order. After reparative therapy, homosexual sex was lowered for 98% of those who had previously engaged in homosexual sex, heterosexual identity was affirmed by 78% more individuals, and homosexual attractions or fantasies were experienced by 47% fewer individuals. Spitzer also categorized individuals as having changed or not changed by dichotomizing each of the three measures "at a point that the author regarded as indicating more than a slight level of homosexuality" (p. 408).

We can quantify the close match between the expected pattern of change with the observed pattern of change by thinking of sex, self-identification, and attraction and fantasies as three items whose order conforms to that of a Guttman scale. For the items to form a Guttman scale, everyone who has significantly fewer homosexual attractions and fantasies should also be more likely to self-identify as a heterosexual, and all those who now self-identify as a heterosexual should be more likely to have reduced the number of their homosexual sex experiences. The coefficient of reproducibility (*CR*) can serve as a measure of goodness of fit between the observed and predicted change patterns. The *CR* is defined as:

$$CR = 1 - \frac{\sum e}{Nk},$$

where e is the number of individuals whose item order does not conform to that of a Guttman scale, N is the sample size, and k is the number of items (Dunn-Rankin, 1983). The *CR* ranges from 0 to 1, with 1 denoting perfect conformity to a Guttman scale.

In order to compute the *CR*, data at the individual level are required. Spitzer clearly states in his article that his raw data are available to others, but the data were not available at the time this commentary was written. Thus, the following procedure was used to obtain an estimate of the *CR* for these data. Data were first created for 133 individuals by requiring that, for each item, the simulated data have same proportion of individuals who changed as in the observed data. For example, 47% of the individuals in the observed data reduced their homosexual fantasies; therefore, the simulated data for this item was also defined to have 47% of the sample change. Although the simulated data can reflect the correct proportions of change for the items, it is impossible to specify for any one person the specific pattern of change. To overcome this difficulty, 1,000 bootstrap samples of 133 individuals each were created to provide an estimate of the true *CR*. From the 1,000 samples, the *CR* ranged from 0.83 to 0.95, with a mean of 0.92 and a *SD* of 0.03.

Does a mean *CR* of 0.92 indicate a good fit? No value of *CR* has been defined that is universally accepted as a dividing line between acceptable and unacceptable goodness of fit, although Guttman (1947) originally defined a value of 0.85 as the dividing line. Other authors (e.g., Torgerson, 1958) suggested that a *CR* above 0.90 is a better standard. Therefore, the mean *CR* of 0.92 indicates that the pattern of change among the measures does fit a Guttman scale well. The goodness of fit of the Guttman scale to the three items is even more impressive when one considers that the mean *CR* of 0.92 is certainly an underestimate of its true value in the real data: the data set from which each of the bootstrap samples was drawn was created by randomly specifying whether an individual changed or not on *each item separately*. Therefore, each individual's entire item pattern was random.

The orderly, law-like pattern of changes in homosexual sexual behavior, homosexual self-identification, and homosexual attraction and fantasy observed in Spitzer's study is strong evidence that reparative theory can assist individuals in changing their homosexual orientation to a heterosexual orientation. Now it is up to those skeptical of reparative therapy to provide comparably strong evidence to support their position. In my opinion, they have yet to do so.

Methodological Limitations Do Not Justify the Claim That Same-Sex Attraction Changed Through "Reparative Therapy"

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The study by Spitzer suffers from substantial limitations that render his conclusions virtually meaningless. The main problems are methodological and relate to demand characteristics, sampling, lack of control, and validity of measurement.

The problem of demand that pervades the study is a fundamentally confounding factor. The sample most likely consisted of individuals who have experienced intense anxiety and guilt to the extent that this sets them apart from a majority of other lesbians and gay men who are dealing with identity issues. Consequently, the reports of change provided by these participants may originate from a combination of erotophobia (negative emotional reactions to sexual issues) and remorse over perceived violations of religious doctrine or culturally and family-based values, rather than representing a self-enhancing change in erotic and romantic nature.

Individuals who are unhappy with their attraction to the same sex and who have gone to great lengths to change will be motivated for their attitudes to become consistent with their public behavior, in line with cognitive dissonance theory. Reports of attitude change may not be enduring over the long haul when they are related to such compelling issues as attraction and sexual desire.

The desire to change one's lesbian or gay sexual orientation is typically based on deeply entrenched negative attitudes about one's same-sex feelings, frequently called *internalized homophobia*, "the most insidious of the minority stress processes, . . . leading to a devaluation of the self and resultant internal conflicts and poor self-regard" (Meyer & Dean, 1998, p. 161). Meyer and Dean note that "men in the early stages of coming out and men who have sex with men but have not accepted their homosexuality are likely to have higher levels of internalized homophobia than their counterparts" (p. 179). The important role of traditional mainstream religions in promoting the internalization of homophobia is demonstrated in Meyer and Dean's study of 912 gay men. The men who were religious, but who were not associated with gay churches or synagogues, experienced higher levels of internalized homophobia than men who were religious, but who were associated with gay religious organizations; in fact, these latter men were equivalent in homophobia to nonreligious men, suggesting a beneficial influence of gay-affirming beliefs.

The effect of such conflict and anguish very likely distorts assessments made by individuals who have gone to great lengths to seek help. In response to antigay attacks, individuals with high levels of internalized homophobia likely experience their orientation as a source of pain, rather than as a source of pleasure, love, and intimacy. Antigay attacks are therefore often interpreted as justified punishment for being lesbian or gay and this may contribute to the process of wanting to change their sexual orientation (Garnets, Herek, & Levy, 1990).

Contrary to claims made by Spitzer, bias could account for a substantial portion of the changes reported by his respondents. Sexuality researchers have been concerned for some time about the potential for biases that diminish the accuracy of information, both in self-report methods (Meston, Heiman, Trapnell, & Paulhus, 1998) and in interviews (Catania, 1999). Such biases are likely due to nonconscious self-enhancing or social desirability processes (Brown & Sinclair, 1999). Such distortion never occurs in a form where all individuals skew their reports perfectly in line with the desirable standard, an argument Spitzer employed to dismiss the probability that bias affected the results of his study. Rather, bias is identified by differences in group averages. The variability within groups is never close to zero, with all members of a group falling extremely close to one end of the dimension. This is true even in validity research in which participants are requested to distort their responses by the researcher (Holden & Jackson, 1981). Therefore, substantial distortion could have occurred in self-reports of respondents in the Spitzer study which would not be evidenced by all respondents rating themselves at the "perfect" (i.e., heterosexual) end of the scales.

In contrast to the argument advanced by Spitzer, which was also intended to discount the possibility of bias, gender differences can be found in distortion, *especially* with respect to sexuality. One example of this is that men report greater numbers of sexual partners than do women of the same age, which cannot be entirely or even substantially attributed to larger numbers of men having sex with a small number of women (Brown & Sinclair, 1999). Furthermore, according to the availability heuristic (Kahneman & Tversky, 1973), the salience of an event biases judgment about the frequency of the event. For example, adolescent same-sex experimentation is quite common, but for the individual who is horrified at the thought that she or he may be gay, one or two such contacts could easily be perceived as excessive, and consequently the perception, and subsequent reports, of homosexual activity are gross overestimates. Such a possibility suggests that the participants in the Spitzer study may not actually be gay to begin with, or they are bisexual; in either case, their reports of change therefore would not really reflect a change of sexual orientation among lesbians and gay men. The most plausible explanation is that a nonconscious cognitive distortion affects judgments about

sexual experiences for both sexes (Brown & Sinclair, 1999; Meston et al., 1998).

Given the possibility of distortion and the demand for attitude–behavior consistency, issues related to sampling and control should be elevated to the highest level. Simply locating people who claim to have changed does not provide convincing data. It would be possible to locate people who claim and sincerely believe any number of phenomena that are not easily verifiable empirically and about which many professionals are skeptical. All participants were obtained from organizations or therapists who are extremely committed to the efficacy of reparative therapy and only people who contacted the researcher were included in the study. These people are by definition those who believe in the effectiveness of the reparative techniques and earnestly need the technique to be effective both from a spiritual and an emotional perspective. Moreover, basic to any behavior change research is the inclusion of persons who attempted behavior change and failed.

Effort to employ the highest degree of control is incumbent upon researchers of such sensitive topics. Assignment of participants to experimental conditions is not the only means of enhancing control. Because of the problems with a hypothesis-biased population, it is critical to establish the nature of the sample obtained in terms of theoretically relevant characteristics; it is important as well to compare these individuals to other samples of lesbians and gay men to determine exactly the ways in which they are similar or different. Such critical characteristics should include homophobia, erotophobia, sex guilt, emotional stability, psychological disorders, self-esteem, social functioning, and religious guilt, to name but a few.

A comparison could involve matching therapy participants with nontherapy participants to determine the extent to which nontherapy participants had attempted sexual orientation changes in the past. With only one group purporting to experience change and with no comparison group, little confidence can be placed in claims that change occurred specifically due to therapeutic intervention and not due to some other factor. Moreover, change based on retrospective reports related to therapeutic progress are highly suspect in terms of validity, again especially given the incredible demand for change inherent in the life situation of these respondents, and given the fact that the pretherapy period was on average 12 years prior to the data collection period.

In addition to emotionally-based cognitive distortions, the issue of bias in assessment of current heterosexual relationships must be considered. When an individual who desperately wants to be heterosexual is finally involved in a heterosexual relationship and is asked, "Are you emotionally satisfied with your relationship?," what the researcher may actually be measuring is relief at achieving this greatly desired goal and not necessarily what most individuals mean by satisfaction with a relationship. The same can be said for the question about physical satisfaction. What is not investigated is the effort that goes into becoming physically aroused, because anecdotal reports suggest that "ex-lesbians" or "ex-gays" often must spend a great deal of effort achieving levels of arousal sufficient to engage in heterosexual sexual behavior.

The only conclusion that is indisputable in Spitzer's study is that he has identified a subset of lesbians and gay men (who in fact may actually be more appropriately considered bisexual) who claim to have changed their overt sexual behavior; the nature of the change, and the process through which it occurred, has not been convincingly established. Given the importance of this issue for individuals struggling with their sexual orientation, to claim otherwise is misleading and dangerous.

Initiating Treatment Evaluations

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Spitzer presents face valid evidence that changes in homosexual behavior and feelings of desire and satisfaction can be achieved by some, to varying degrees, via "reparative therapy."

These reports, which Spitzer quite logically argues are convincing, are necessary preliminaries to an open trial, which enrolls a series of appropriate subjects, treats them all and records the results. This allows an estimate of the proportion of good outcomes, although it does not establish that the therapy caused the benefit since patients may improve in spite of their treatment. Volunteers who claim successful outcomes do not yield an estimate of the proportion benefited. Also, just how common such reported successes are remains obscure.

Spitzer calls for a consecutive series who perceive homosexuality as a problem of theirs they wish fixed, who have been evaluated before and after treatment. I agree this is the correct next step. Apparently, Nicolosi and Byrd claim to have such data. If this is more than therapist self-serving, they have an obligation to present their data or to stop making such important claims. Such strictures also apply to the range of official groups that assert the uselessness and damaging effects of "reparative therapy" for homosexuality. Where are their data? If it is nothing but anecdotes and presumptions, how can they claim they are being professionally responsible? Relevant observations are needed to raise hopes that a treatment is worth

evaluating. Spitzer provides the level of evidence appropriate to the initial stages of therapeutic evaluation with regard to a heuristically important issue.

Spitzer, pessimistically, but perhaps accurately, states that this methodologically correct next step, the evaluation of the treatment of a well defined consecutive series of homosexual patients, is unlikely to occur. However, cost and duration are really not to the point, considering other trials that have received NIMH funding. Concerns about patient safety may be more to the point but apparently these concerns are more theory driven than data substantiated. A data safety monitoring board would provide an adequate safeguard.

The trepidation in this area may arise from concern about the "repathologization" of homosexuality. This is fostered by the term "reparative therapy," which is both vague and presumptuous. However, if it was renamed, say, "role modification," would that help? Effective change techniques do not necessarily imply illness (e.g., cosmetic surgery).

The American Psychiatric Association (APA) states that it supports such research, but ethical practitioners should refrain from attempts to change individual's sexual orientation until the research findings are at hand. Such a data based orientation with regard to psychotherapeutic efforts can only be welcomed. Of course, if this criterion was consistently applied, the APA would have to be substantially more critical about other more favored psychotherapies.

Treatment evaluation aspires to demonstrate specific benefits through determinate causes. Spitzer suggests that the causal efficacy of reparative therapy may never be shown because it is extremely unlikely that patients would enter a long placebo controlled trial. However, the point of a placebo controlled trial is to address the null hypothesis that the entire effect of the treatment is due to the nonspecific combined effects of being in treatment, having one's hopeful expectations raised in a congenial environment, and the natural history of the condition.

However, there are controlled dismantling comparisons that allow causal inferences. Behavioral activation, which may account for the benefits of cognitive behavior therapy, is a reasonable comparison. Reparative therapy might be compared to its components, such as incremental heterosexual pleasures, avoidance of exposure to homosexual pleasures, or any other credible component of the currently ill-defined reparative therapies. If it turns out that complex reparative therapy was more effective than its credible components, and if it were unlikely that the components were toxic, this suggests causal efficacy for reparative therapy, even though specific causal agents remain obscure.

To engage in such meticulous research would require a very convincing body of data from the simpler longitudinal, complete, series of treated and evaluated subjects. Those who claim therapeutic success have the responsibility for providing the supportive data. Spitzer's study provides the necessary minimum for future studies to be considered feasible and perhaps fruitful.

Some claim that they know that the mere publication of this report will cause grievous social, political, and personal harms. This amounts to a call for censorship, rather than meeting the issues on factual and logical grounds. History is replete with often successful attempts to quash questions about the conventional wisdom. This accounts for their infrequency. Initiating questions, in the framework of fostering objective studies, rather than asserting prior knowledge of the truth, has an honored place in science.

A Positive View of Spitzer's Research and an Argument for Further Research

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Spitzer demonstrates that some individuals who have undergone "reparative" therapy report that they have changed their sexual orientation from homosexual to heterosexual for at least a 5-year period. His study obviously has many limitations, being retrospective, relying on telephone interviewing, and without any objective measurements of sexual arousal, such as penile plethysmography or vaginal photoplethysmography, which he fully discusses.

Arguably, one's fantasies, including masturbatory fantasies, are the best reflection of one's sexual arousal pattern compared with questions involving one's history of sexual interest or behavior. It is notable that in this study, among those who masturbate posttherapy, 68% of males and 41% of females still report same sex fantasies on 20% or more of masturbatory occasions and only 31% of males and 72% of females report opposite sex fantasies on 20% or more of masturbatory occasions. This masturbatory data suggest that change in one's sexual arousal pattern is difficult.

Spitzer, as well as the various national organizations cited in his article, suggests that more research could be done to further determine "reparative" therapy's risks versus its benefits. However, he then says that, realistically, it is unlikely, given the costs of such a study, that such research will be conducted in the future. Although "reparative" therapy concerns itself with change in sexual orientation, other therapies, such as cognitive behavioral therapy, concern themselves with the control or

elimination of unwanted sexual behaviors and arousal, such as those present in the paraphilias or in individuals who are sexually compulsive (Abel, Osborn, Anthony, & Gardos, 1992; Benotsch, Kalichman, & Kelly, 1999; Kalichman,
Greenberg, & Abel, 1997). Further study of behavioral and/or pharmacological therapy to help such individuals seems indicated and appropriate. I think that Spitzer has made a substantial contribution, given limited resources, and would hope that more funding for the study of therapies involving not only the change and control of unwanted sexual behavior, but its origins and development, will become available.

Penile Plethysomography and Change in Sexual Orientation

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In his article, Spitzer pointed out that reported change in sexual orientation in men and women following therapy would have benefited from use of penile or vaginal plethysmography. Outcome changes in men's penile volume responses to films of nude men and women were reported in a series of studies evaluating aversive therapies aimed at changing sexual orientation, administered over 1 week. The men were investigated prior to as well as at follow-up, at 6 months to 3 years. Their self-reports showed changes following treatment similar to, though less strong than, those reported by Spitzer. Of 40 men consecutively treated in the first study (McConaghy, 1970), at follow-up of 1–3 years, 15% reported an increase, and 30% a possible increase in heterosexual desire. Thirty-two percent reported a reduction, and 15% a possible reduction in homosexual desire. Prior to treatment, 38 had homosexual relations with a number of partners, with 18 having been arrested for homosexual behavior on one or more occasions. Following treatment, 27% had no homosexual relations, and 32% reduced their frequency; 7% continued heterosexual relations at the same frequency, and 27% initiated them or continued them at an increased frequency. They showed significantly reduced mean penile volume responses to men; however, although they showed significant mean increase in penile responses to the films of women, this change was only present in men who prior to treatment had shown negative responses to those films, not in the men who prior to treatment had shown positive responses to them.

Some men who remained exclusively homosexual following treatment reported they were no longer continuously preoccupied with homosexual thoughts and felt more emotionally stable and able to live and work more effectively. Others were able to control compulsions to make homosexual contacts in public lavatories, which had previously led to their being arrested. Of nine married men, six stated their marital sexual relationship had markedly improved. They included two of three who had ceased having intercourse with their wives some years before treatment. Related studies were carried out on a further 40 men (McConaghy, Proctor, & Barr, 1972) and 46 men (McConaghy & Barr, 1973). The changes in self-report and penile volume responses of the men following treatment were comparable with those found in the first study. Again, the increase in penile volume of the treated men to pictures of women was due to reduction of negative penile responses, rather than increase in positive penile responses. It was considered that the aversive procedures produced reduction in homosexual feelings, but no actual increase in heterosexual feelings. The increase in heterosexual feelings and behaviors reported by treated patients was attributed to their increased awareness of previously existing heterosexual feelings when their homosexual feelings were reduced.

It was attempted to increase the heterosexual feelings of homosexual men by showing them slides of nude women in temporal association with slides of nude men to which they were sexually aroused. It was expected this would lead by conditioning to the pictures of women becoming sexually arousing. The men seeking sexual reorientation were randomly allocated, 15 to receive the conditioning procedure and 16 to receive aversive therapy (McConaghy, 1975). The men's penile volume responses throughout treatment were monitored. No increase in the men's penile volume responses to the pictures of women were produced by the conditioning procedure and it was concluded it was therapeutically ineffective. At 1-year follow-up, slightly more men reported increase in heterosexual feelings and markedly more men reported reduction in homosexual feelings and reduction or cessation of homosexual behavior following the aversive than the conditioning procedure, the difference with behavior being statistically significant. As the conditioning procedure was ineffective, it was concluded that it acted as a placebo therapy and the significant reduction in men's homosexual behavior following aversive therapy was a specific effect.

As in previous studies, the men's mean penile volume responses were significantly greater to the moving films of women and less to those of men at the year follow-up, compared to their responses prior to treatment, with the changes being equivalent following the aversive and the conditioning procedure. As the conditioning procedure appeared to have no therapeutic effect, the changes

in penile volume responses following it could not be an effect of therapy and were considered due to the men consciously or unconsciously modifying their penile volume responses to conform with their wishes to be more heterosexual. As the changes in the men's penile volume responses following the aversive therapy were no greater than those following the conditioning procedure, it was concluded they also were not specific effects of the treatment, but due to similar attempts by the men to modify their responses.

Freund (1971) found that 20% of homosexual men when requested could produce penile volume responses which indicated they were predominantly heterosexual. In the four studies reported above, of the men assessed prior to treatment, 117 showed penile volume responses indicating predominant homosexual and 33 predominantly heterosexual orientation. Following treatment, 53 showed predominantly heterosexual orientation. Hence, 17% of men showed the change to predominant heterosexuality, less than the 20% of homosexual men Freund showed could produce this change voluntarily. It was concluded that aversive therapy produced a reduction in men's homosexual feelings and behaviors without altering their physiologically assessed sexual arousal to women as compared to men. An alternative theory was advanced that aversive therapies acted not by modifying physiological sexual arousal, but by reducing compulsive homosexual urges and behaviors. These changes were experienced as reduction in homosexual feelings, allowing some subjects to be more aware of and express their heterosexual feelings.

It is possible that the subjects investigated by Spitzer experienced similar changes without change in the core item of physiological sexual arousal to men as compared to women. Though he found much stronger changes than those in the men in the four studies reported, it is possible that men and women with strong changes were more likely to have volunteered for Spitzer's study. A number of men and women, presumably at times without treatment, can change what Spitzer termed core features of sexual orientation. The representative sample of the United States population investigated by Laumann et al. (1994) showed a steady reduction in homosexual behavior with age. It was reported respectively by 6.4% of men and 3.5% of women in their adolescence, 4.1% of men and 2.2% of women in the past 5 years, and 2.7% of men and 1.3% of women in the previous year. About 1% of men and 0.3% of women were aware of equal bisexual or predominant homosexual feelings but identified as heterosexual, as did 16% of the 2.4% of men who were exclusively attracted to the same sex. Exclusive homosexual activity was rare, reported by only 0.2% of women and 0.6% of men since puberty. Hence, less than a quarter of the 1.4% of women and 2.7% of men who identified as homosexual or bisexual had never had sexual activity with members of the opposite sex. Dunne, Bailey, Kirk, and Martin (2000) found that 20% of male and female twins reported homosexual behavior or awareness of some homosexual feelings; 97% of all the men and 96% of all the women had been sexually attracted to someone of the opposite sex at some time in their life. Hence, an ability to identify as heterosexual, to experience heterosexual attraction, and to have heterosexual activity is present in a significant percentage of men and women with homosexual feelings or behaviors.

On the basis of the theory that aversive therapies acted to reduce compulsions, an alternative nonaversive therapy, imaginal desensitization, was developed and shown in a randomized control trial to reduce men's compulsive sexual feelings and activity to a greater extent than an aversive procedure (McConaghy, Armstrong, & Blaszczynski, 1985). Imaginal desensitization was recommended to reduce preoccupations with homosexual fantasies and compulsive homosexual behaviors, in men and women unable to accept a homosexual adjustment (McConaghy, 1993). Behavioral therapy for anxiety concerning heterosexual activity, and where appropriate, referral to a trained opposite-sex surrogate therapist, were recommended to increase heterosexual interest and activity. The book containing these recommendations was reviewed in a number of psychiatry and sexuality journals. No reviewers objected to the recommendations. It is possible that the majority of psychiatrists are not opposed to the use of therapies aimed at changing what Spitzer termed core features of sexual orientation of men and women who cannot accept a homosexual life-style. It could be argued that physiological arousal to members of one's own sex versus the opposite sex is the core feature of sexual orientation, particularly when the evidence presently available indicates that such arousal cannot be modified with therapy. However, this would seem a semantic issue, irrelevant to whether or not therapies aimed at modifying homosexual feelings and behaviors produce changes experienced positively by the men and women treated. The evidence from studies carried out over the past 40 years indicates that they do. Spitzer's concurrence with the recommendation to evaluate the risks versus the benefits of such therapies may be shared by many colleagues.

Finally, Recognition of a Long-Neglected Population

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As a clinical psychologist who has worked almost exclusively with homosexual men for over 15 years, and as the originator of the term "reparative therapy," I am very grateful to Spitzer for giving a voice to ex-gays. Although this client population remains little recognized, there are hundreds of ex-gay men and women whose quiet and heroic struggles have been assisted by the clinicians associated with the National Association of Research and Therapy of Homosexuality (NARTH). Some NARTH clinicians see same-sex attraction as a developmental disorder; others do not. But whether or not they hold to the "disorder" theory, all of these clinicians have agreed to support clients who choose to diminish their unwanted homosexuality and develop their heterosexual potential.

Who, then, is this client that seeks out "reparative" or "reorientation" therapy? Is he a self-hating person whose problem is rooted in internalized homophobia? It is essential to understand that there are radically different understandings of the term "homophobia." Some see it as self-hatred and rejection of one's core identity while others define it as the recognition that there is something disordered about one's sense of self and way of relating to others with respect to gender.

Recently, Rosik (2003) noted that there is usually a difference in beliefs about the source of moral value that separates clients who seek sexual reorientation from those who seek gay-affirming therapy. Clients who seek gay-affirming therapy tend to emphasize a sexual morality that sees the individual as his own autonomous source of moral truth. This is the "ethic of autonomy," which envisions sex as being moral as long as it is consensual. By contrast, argues Rosik, those who seek reorientation therapy tend to approach the subject more from a moral domain emphasizing the "ethic of divinity" and/or "ethic of community," both of which assume a universal moral order grounded in religious values given by God or community. The act of giving one's consent, for those who hold to this ethic, does not make a sexual act moral. Some expressions of sexuality, according to this view, convey an intrinsic harm to personhood—whether or not this harm is measurable by psychology or actually perceived by the person.

There is a considerable body of psychodynamic theory—supported by empirical evidence—to buttress reparative-drive theory and reparative therapy. Reparative theory views homosexual attractions as generated by unmet same-sex attachment needs (Moberly, 1983; Nicolosi, 1991, 1993). In fact, in the 30 years since the removal of homosexuality from the DSM, there has yet to emerge any alternative, credible, nontraumatic model of development that results in homosexuality. The only serious attempt to formulate a developmental model is that which was offered by Bem (1996) and I elsewhere have listed my objections to Bem's "Exotic Becomes Erotic" model (Nicolosi & Byrd, 2002).

Are there other, purely practical reasons for leaving a gay lifestyle? Male eroticism—which is by its very nature promiscuous—seems to pose an inevitable problem of infidelity. McWhirter and Mattison (1984) conducted an in-depth study of the quality and stability of 156 long-term homosexual couplings which had lasted from one to 37 years. Two thirds of the respondents had entered the relationship with the expectation of faithfulness. But not one of those couples was able to maintain sexual fidelity for more than five years. For this and other reasons, it is not so surprising that many of Spitzer's subjects reported a deep dissatisfaction with gay life. I believe that the deficit-driven nature of homosexual attraction limits two men to constant cycles of intense infatuation which never have the chance to ripen beyond good friendship into mature, sexually faithful love.

One of my clients who has had over 2,000 anonymous contacts admits gay sex is "incredibly intense—no doubt the most pleasurable thing in my life." Yet, this man confesses that afterwards he is "wiped out, depressed, sad, and discouraged." Another former client (who married and now has grown children) explains why he left a gay lifestyle:

> The sexual experience with a man is like taking an opium drug. It's soothing, it's anesthetizing, and it's a "quick fix." This can make it very difficult to leave homosexuality. When we have sexualized those emotional needs—when we have already learned to get those needs temporarily met in a sexual way—we've taken a normal, legitimate, God-given need [same-sex bonding and affection] and met it with a "drug." That's one of the things that I've had to recognize and admit to myself; a same-sex relationship wasn't meant to have that kind of zing. The "zing" is artificial, but it is very compelling—and it is what keeps a lot of men in the gay life.

So, if it is true that for many people, gay relationships simply don't "work," then the next question must be: Is change possible? As Spitzer astutely notes, change should be viewed not in terms of erasing all unwanted desires, but as a matter of diminishing homosexual attractions and increasing heterosexual responsiveness.

Spitzer is not the only recent researcher who has observed the potential fluidity of sexuality. Diamond (2000) found that "for sexual-minority women, nonexclusivity in attraction is the norm, rather than the exception" (p. 247). Half of the lesbian, bisexual, and "unlabeled" women in her study reported at 2-year follow-up that they had changed sexual identities more than once. Haldeman (2000), who has been critical of reorientation therapy

because he sees homosexuality as part of a person's core nature, has stated that "the categories of homosexual, heterosexual, and bisexual, considered by many researchers as fixed are in reality very fluid for many."

Typically, with men who have left a gay lifestyle and developed heterosexual attractions, we almost always see that these newly developing attractions are of lesser intensity than their former homosexual feelings. For many years, I was unable to understand why, nor did I know why ex-gay men typically say they are sexually attracted to their wives, but much less so to other women (good news, of course, for the wives). I came to realize that this was not so much a problem of arousal, as of trust. Male homosexuality is often associated with the boy's narcissistic emotional enmeshment with the mother, where the son feels responsible for the mother's feelings (Socarides, 2002). The resulting fear and anger is projected onto all women, whom he expects will be manipulative and engulfing, and will take away his masculine power. The challenge for the ex-gay man is to enter into a relationship with a woman while maintaining a sense of self-possession. As he gets closer to a woman, this anxiety manifests itself as a fear of sexual performance. Therefore, almost without exception, the ex-gay man cannot develop a sexual relationship with a woman unless he first develops a friendship. Only when he knows he can trust the woman with his vulnerability will his latent heterosexual feelings become manifest.

Almost all the clients I have known who transition away from homosexuality describe a more subtle heterosexual response, one which has, as my former client says, less "zing." But even though they are of less intensity, these experiences are richer, fuller, and more emotionally satisfying. These men describe a feeling of "rightness" and a natural compatibility. As one ex-gay and now-married client said, "When I compare my intimate experiences with my wife to my homosexual experiences, it seems like we were little boys playing in the sandbox." Rather than feeling depleted, he is renewed, feels good about himself, and experiences himself as an integral part of the heterosexual world.

Wyler (2002) captures an experience of sexual reorientation similar to many of the individuals interviewed in Spitzer's study:

> Where once we felt sexual lust [for other men], today we feel brotherly love. Where once we felt fear of heterosexual men and estrangement from them, today we feel trust and authentic connection. Where once we felt self-hate and a feeling of never being "man enough," today we feel self acceptance and a strong and confident masculine identity. We experienced this profound change by uncovering and healing the underlying pain and alienation from men, masculinity and God that, we found, had caused so much of our homosexual symptoms. . . .
>
> We can only speak for ourselves—about our own experience, about what was right for us, about what brought about change in our lives . . . and what brought us joy.

There is no doubt that reorientation therapy is not for everybody. Many clients choose to live out their same-sex attractions—and respect for client diversity and autonomy require that gay-affirming therapy be available. But reorientation therapy must be offered for those who do believe that gay is not who they really are. This group—the population Spitzer studied—are the men and women who seek to live out a different understanding of the meaning of gender and wholeness.

Sexual Orientation Change and Informed Consent in Reparative Therapy

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Spitzer concluded that reparative therapy can sometimes change homosexuals to heterosexuals and, therefore, the movement towards banning this type of therapy is wrongheaded. He argued that using this therapy should be the patient's choice. Such choice, when based on informed consent, should be seen as fundamental to client self-determination. In this commentary, I examine the validity of his claim for *actual* change in sexual orientation and then evaluate his arguments concerning informed consent.

Spitzer's assertion that his study is a significant improvement over previous research in this area is correct. His measures of sexual orientation were more diverse, including not just surface aspects (e.g., overt behavior, self-labeling), but features that appear to get to the core (e.g., feelings, yearnings, fantasies). His sample size was impressive, his interview schedule was well designed, and his offer to share all his data, including audio recordings, with the research community was very much in the scientific spirit. His results are clear in indicating that his subjects did change in important ways. For instance, extending his report to an effect size analysis, change in self-reported sexual attraction from before to after therapy was 3.40 *SD*s for men and 4.04 for women, values that are enormous compared to average psychotherapy effects, which Smith and Glass (1977) estimated to be 0.68 *SD*s in their seminal meta-analysis. Effect sizes were similarly huge for other measures in Spitzer's study. Thus, on its surface, the study appears to show dramatic effects of therapy in changing sexual orientation. The key issue, as Spitzer himself noted, is the credibility of the self-reports.

Spitzer stated that he believed his subjects' self-reports, claiming these did not appear to be lies or self-deceptions. Most likely the subjects did believe what they reported (so they were not lying), but what about self-deception? Spitzer argued that if self-deception obtained, then one would have expected findings such as reports of complete or near complete change, rapid change, and similar change in men and women. Since these did not hold, he rejected self-deception. These arguments are unconvincing. Why must self-deception produce the perception of only complete and rapid change rather than partial and gradual change? Cannot men and women self-deceive differently to reach different perceptions of change, given that they are known to think differently about many sexual and nonsexual issues? More importantly, what about social psychological research on cognitive dissonance and social cognition (Festinger, 1957; Myers, 2000), which shows that self-deception frequently occurs in situations of conflict? Festinger (1957) described cognitive dissonance as a state of negative arousal resulting from conflict between important beliefs, which motivates attempts at dissonance reduction through means such as altering and even distorting the conflicting beliefs to make them consonant. Much experimental research has supported his theory. Social cognition research similarly has demonstrated multifarious routes to self-deception as a means of adapting to current needs and pressures (Myers, 2000).

Patients in Spitzer's study fit classically into the cognitive dissonance dilemma. On the one hand, their sexual attractions were homosexual. On the other, their religious beliefs were antihomosexual. Religion was core to their identities (93% said religion was very or extremely important in their lives) and its tenets caused serious conflicts with their sexual orientation (79% said that this conflict was a major motivation for wanting to change their sexual orientation). Resolving conflicts between such powerful forces is difficult, but subjugating homosexual expression to religion in some cases should not be seen as surprising. Volumes could be written on the power of religion to overcome one's basic nature. Suffice it to say that because of religious beliefs, men have frequently overcome survival instincts (e.g., Muslim suicide hijackings and bombings). In sexuality, men have frequently yielded to antibody, antisex religious philosophies (e.g., Christian priests and monks, including the three most conspicuous early theorists: Origen, who cut off his testicles with a rock to destroy his sexual urge; Augustine, who abandoned sexual pleasure completely despite having enjoyed it so much previously; and Chrysostum, who lived as an ascetic hermit in the desert to avoid all temptation). In short, beliefs about the value of one's life and one's sexuality can readily become subservient to strong religious beliefs. Such yielding, however, does not alter one's biological nature; it just suppresses it. In this sense, strongly religious patients who accept their religion's antihomosexual view, and then under therapy change their attractions and fantasies, may be merely suppressing their true nature rather than altering it.

The alternative explanation then is that Spitzer's subjects, clearly in conflict, resolved their cognitive dissonance (and thus felt happier after the therapy) by rejecting homosexual feelings, thoughts, and behavior, while embracing heterosexual ones. But this rejection represented an effortful suppression rather than an alteration of their basic core nature. Let us examine the therapy itself and some of Spitzer's measures in this regard. We are told that three of the most important elements of the therapy that helped produce change were linking childhood experiences to later sexual feelings, thought stopping, and avoiding tempting situations. The first of these likely reinforced the religious motive to change and added credibility to the therapy, teaching patients that their true nature is heterosexual just as their religions have insisted, that their diversion to homosexual "pathology" is attributable to their having been "victims" of abuse or neglect, and that now they can finally be "healed." The second and third provided the cognitive and behavioral controls to suppress homosexual yearnings and avoid them. Maintaining these controls and behaving heterosexually were then fueled by the relief provided by ending the decades-long cognitive dissonance.

A gay man sees another male who previously would have excited him; he rejects feeling aroused and acknowledging that the male is sexually attractive. He thinks about the other male when alone; he stops this thinking before it becomes a fantasy. He is alone and begins to yearn for homosexual sex, but stops himself, feeling resolutely now that this is intolerable. He sees a woman and tells himself she is attractive, and feels a rush of self-esteem for living up to Christian virtue. The problem is that these apparently involuntary reactions are actually under conscious, cognitive control. The man is playing out a role rather than expressing his true nature, which is suppressed (cf. Goffman, 1959). In short, these measures, it seems, assess surface rather than core change. The man's beliefs are tied to the surface, to the role he feels compelled to play, and to the extent that the core differs, his self-reports are self-deception. What is needed are measures of involuntary response to various actual stimuli, rather than just self-reports that reflect essentially volitional behavior. Put the man back into tempting situations of the kind that formerly aroused him or expose him to gay pornography of the type that used to excite him. Measure his arousal with plethysmography. Expose him

to heterosexual situations that he claims attract him or expose him to heterosexual pornography and then measure the arousal in the same way. Have him self-report reactions to a researcher not in the reparative therapy camp. If he responds more like a homosexual, then his therapeutically induced beliefs are not genuine. If he responds more like a heterosexual, then reparative therapy may be seen as perhaps working.

Spitzer called for professionals to steer away from banning reparative therapy. The inconclusiveness of his measures, which could be reflecting self-deception, weakens this call. This aside, there is another problem with his recommendation, and that concerns whether patients truly are giving informed consent, as they should be according to Spitzer. Informed consent requires knowing the odds of success, a result not derivable from Spitzer's data. More importantly, psychotherapy patients generally put trust in their therapists as medical patients do in their doctors—they assume the treatment is scientifically valid. Reparative therapists teach their patients that homosexual orientation is the product of childhood seduction or negative family events. Such teaching is *not* based on scientific research but stems from theory (usually psychoanalytic) combined with unsystematic observation that dubiously claims to be scientific. But empirical research, as opposed to clinical anecdotes, does *not* support seduction or any family environment variables as causative (e.g., Bell, Weinberg, & Hammersmith, 1981). Patients provided with myth presented as scientific fact are not giving true informed consent.

Finally, there are important reasons to urge caution in mental health treatment of "deviant" sexuality, given the field's history of medicalizing sex based on morality rather than approaching it scientifically (Kinsey et al., 1948; Szasz, 1990). If it is important for homosexual patients to give true informed consent, then therapy from psychologists and psychiatrists should be informed by the full range of knowledge we have about homosexuality, which extends far beyond the clinic or pulpit. Historical, cross-cultural, and cross-species perspectives are essential. The first shows clearly that the Judeo-Christian condemnation of homosexuality is socially constructed, rather than divinely inspired, based on cultural and political events combined with idiosyncratic philosophy (Johansson, 1990). The first two perspectives show that homosexuality in certain forms has been accepted as normal and even functional rather than condemned as sinful and sick in a majority of human societies across time and place (Ford & Beach, 1951; Greenberg, 1988). The third perspective suggests that it has a natural if not genetic basis, as its expression increases systematically in the primate order as one moves from prosimians to New World monkeys to Old World monkeys to apes and finally to humans (Vasey, 1995). In the conflict between the Judeo-Christian attitude and homosexuality, it appears, scientifically speaking, that it is the former, not the latter, that is out of sink with nature. Therapy should be informed by these perspectives so that patients can give true informed consent.

Reparative Science and Social Responsibility: The Concept of a Malleable Core as Theoretical Challenge and Psychological Comfort

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Spitzer's article is reminiscent of constructions of homosexuality as an illness, heterosexuality as normal and healthy, and "reparative therapy" as a treatment. Spitzer presents evidence that individuals' sexual attractions and sexual self identities, as well as sexual behaviors, can change over time, and interprets this as a change in core sexual orientation resulting from reparative therapy. In the current theoretical climate, it would be easy for critics to reject the findings on methodological grounds, to disagree with the conclusion that core sexual orientation changes occurred, or to dismiss Spitzer's argument for its complicity with outdated views of homosexuality. It is important, however, to distinguish methodological criticisms from criticism of Spitzer's underlying moral perspective, and to refrain from using the former to undercut the latter.

Although there are sources of bias in Spitzer's methods, the findings that individuals' sexual attractions, responses, self identities, and behaviors can change are consistent with findings of other contemporary researchers. Comparable research has been conducted under different theoretical guises, including research on coming out, "situational homosexuality," and the multidimensionality of sexuality. Research on coming out documents shifts over the life course from heterosexual to lesbian, gay, or bisexual (LGB) self identities, feelings, and behaviors (e.g., Coleman, 1982; Rosario et al., 1996; Rust, 1993; Savin-Williams, 1995). Research on situational homosexuality explains same-sex activity among individuals otherwise cast as heterosexual, such as prison inmates (e.g., Giallombardo, 1966; Ward & Kassebaum, 1965; Wooden & Parker, 1982) and women in the sex trade (e.g., McCaghy & Skipper, 1969; see Rust, 2000a). Research on sexual multidimensionality documents imperfect and shifting correlations among sexual attraction, response, behavior, and identity (e.g., Blumstein & Schwartz, 1976a, 1976b, 1977; Diamond, 2000; Ekstrand

et al., 1994; Rust, 1996a; Weinberg, Williams, & Pryor, 1994, 2001). Most research on coming out, situational homosexuality, and sexual multidimensionality involves the same methodological weaknesses as Spitzer's research, including reliance on retrospective self reports (cf. Diamond, 2000; Weinberg et al., 1994, 2001). With one exception that I will discuss below, I find Spitzer's acknowledgment of, and efforts to minimize, methodological bias thorough and fair. These biases must be considered, but they do not uniquely discredit Spitzer's findings.

Spitzer found greater changes among women than men. Numerous researchers have found greater variability in sexual feelings, identities, and behaviors over the life course among women than among men (e.g., Laumann et al., 1994; Weinberg et al., 1994) and less consistency among the dimensions of sexuality among women, particularly a tendency for women to identify themselves in ways inconsistent with their sexual attractions and behaviors (e.g., Diamond, 2000; Rust, 1992). It has been suggested that the greater variability and inconsistency in women's sexualities reflect greater social restrictions placed on their sexual behavior, greater dependence of sexual feelings on situational factors, and the importance of social relationships in defining women's identities (e.g., Pillard, 1990; Rust 2000b; Schwartz & Blumstein, 1998). Whereas men might base their sexual identities primarily on their sexual feelings and experiences, women are socialized to subject their attractions to social considerations and to define themselves in terms of their relationships to others, resulting in greater socially induced changes in women's experiences of their sexualities and more frequent changes in their self identities.

Although social influences might be stronger for women, I (Rust, 1996b) have argued that both men and women develop situationally dependent attractions to others, derive identity from their social circumstances, and change their identities as social circumstances change (Rust, 2001). Cass (1996) argued that sociocultural settings have "indigenous psychologies" such that "psychological functioning and human behavior is specific to the sociocultural environment in which people live" (p. 229). Spitzer's findings that both men and women, but particularly women, experience changes in their sexual feelings, behaviors, and identities during reparative therapy is entirely consistent with these social constructive arguments. Religious teachings, social support from ex-gay organizations and other-sex spouses, and cultural encouragement of heterosexual relationships are circumstances that might influence individuals' sexualities.

Some of Spitzer's own findings appear to undermine his conclusions. For example, Spitzer reported that 85% of male and 70% of female respondents "did not find life as a gay man or lesbian emotionally satisfying." Although this could be interpreted as evidence that these individuals' pretherapy core sexual orientations were not homosexual, and that the shift toward heterosexual functioning is not, therefore, a shift in core orientation, I believe this would be a misinterpretation. The finding is not a lack of emotional satisfaction with a same-sex partner, but with life as a gay man or lesbian. I see this as evidence of the social malleability of sexual feelings; life as a gay man or lesbian might be unsatisfying for Spitzer's respondents because same-sex relationships lack social recognition and do not fit the family image they covet. The lack of emotional satisfaction is social in origin, but leads to a perception of one's same-sex attractions as ego-dystonic, which motivates a reconstruction of the self as heterosexual. One might be attracted to one's own sex, but also to a heterosexual lifestyle, and one might generalize one's attraction to a heterosexual lifestyle into an attraction to an other-sex person.

The distinguishing feature of Spitzer's research is not the finding that changes occur, but the argument that they reflect changes in core sexual orientation. Researchers who document changes in sexuality generally do not infer changes in core sexual orientation. For example, coming out is usually described as a rejection of a false heterosexual identity in favor of a LGB identity that reflects one's true sexual orientation, rather than a change in core sexual orientation (cf. Dixon, 1984). The term "situational homosexuality" was developed to protect the notion of an immutable core sexual orientation. Researchers who document sexual multidimensionality typically critique dichotomous constructions of sexuality, a deconstructionist approach that rejects the notion of a "core" homo- or heterosexuality. As Spitzer notes, even other researchers who study reparative therapy stop short of claiming changes in core sexual orientation. The real challenge Spitzer poses, therefore, is not the assertion that changes in sexual identity, feelings, and behavior occur, but the assertion of a core sexual orientation that is, although core, amenable to change. If a core orientation can change, what defining characteristic renders it "core"? The proposition that a malleable core sexual orientation exists is untestable. Its function is not scientific, but psychological; it allows individuals undergoing reparative therapy to hope that they will, ultimately, be able to live without fear that their same-sex desires will resurface.

Spitzer acknowledges his respondents' high motivation to demonstrate the efficacy of "reparative therapy," but asserts that he found their claims credible. He points out that his respondents did not report rapid or complete change, that some admitted using gay pornography, and that findings for women and men differed. I agree that these findings would be unlikely if respondents were

lying, but I find them entirely consistent with the argument that subjects were deceiving themselves or, as I believe, reconstructing themselves. Both self deceptive processes and reconstructive processes can be lengthy, and reconstructive processes can be gendered. The change must be credible to the respondent as well as to observers; otherwise, the self deception, or reconstruction, cannot be successful.

Spitzer notes the possibility of interviewer bias, but underestimates other methodological biases. Recruitment via ex-gay ministries and the National Association for Research and Therapy of Homosexuality ensured respondents with personal interests in the success of reparative therapy. Given the impossibility of randomly assigning individuals to treatment and control groups, this bias is probably unavoidable. Many had obvious vested interests. Spitzer reports that 78% had spoken publicly in favor of reparative therapy. More important, however, is the fact that subjects self selected in response to "repeated notices of the study" sent to them by organizations upon which they relied for their "recovery." Endorsement of the research by these organizations would have suggested to potential respondents an organizational interest in the study's outcome, thus heightening both self-selection and response biases.

Spitzer's lack of criticism for the term "reparative therapy" and his equation of sexual addiction with homosexuality are disturbing. In all fairness, Spitzer does not advocate the use of reparative therapy to treat homosexuality in general. Spitzer's respondents underwent therapy because they desired to function heterosexually. These desires undoubtedly stem from social disapproval of homosexuality, and I would prefer to change the attitudes, not the individual; however, this choice belongs to the individual. Although Spitzer does not explicitly advocate reparative therapy in general, his failure to critique it speaks loudly. As social scientists, we cannot be held responsible for others' use of our findings, but I do believe we have a responsibility to consider the political circumstances within which we choose our research questions and present our findings. Social responsibility is particularly important when our research touches on areas of sexuality in which social prejudices have caused so much suffering for so many for so long.

A Candle in the Wind: Spitzer's Study of Reparative Therapy

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Spitzer is to be congratulated on tackling a difficult research question in a manner that, in some ways, is superior to many of the previous research efforts in this important area. He asked more, and often better, questions of more people who have "successfully" undergone reparative therapy than anyone else. However, his study has some serious methodological limitations. Although he acknowledges most of these limitations, he may be too willing to minimize or deny their impact on the meaningfulness of his results.

The acknowledged major limitations of this study are the manner in which participants were recruited and its reliance on self-report measures of change. Beyond the fact that there was no control group and no random assignment to treatment, interviewees were self- and therapist-selected because they believed that they had changed as a result of reparative therapy. This, obviously, creates several important limits. For example, we have no idea how typical these self-reported changes are. Spitzer admits that these are likely exceptional cases, but how exceptional? Do they represent the top 25%, 10%, 1%? This is not a trivial matter, especially as one is trying to weigh the relative benefits and risks associated with reparative therapy. Of course, a related limit to this recruitment strategy is that we have absolutely no idea about how many reparative therapy patients might have been harmed by their participation, or in what ways.

The sole reliance on self-reports of this select group is also problematic. I agree with Spitzer's belief that few of his participants consciously misrepresented themselves on the pre- and postmeasures. However, it seems likely to me that he may have underestimated the degree to which, for religious and self-esteem reasons, his participants may have been highly motivated to see themselves as having changed more than was really the case. Further, we have the cognitive dissonance that would have been created had these men and women seen their years of work as unsuccessful and ineffective. Spitzer is more convinced than I by the "evidence" of the reality of these reports (i.e., that most reported less than complete change on all dimensions). These were educated people who, as a result of their own experiences and the experiences of others like them, knew that absolute change in orientation was unlikely, even for those "successful" in treatment. They could have been easily unrealistically positive in their appraisals while reporting less than complete "cures."

Where does that leave us? It is unlikely that many practitioners or theorists currently believe that sexual orientation is completely fixed and unalterable for all people, in all ways, throughout the lifespan. There are a number of

qualitative studies documenting individuals, particularly women, who experienced significant transitions in many aspects of sexual orientation without the benefit of formal, or even informal, reparative therapy (e.g., Blumstein & Schwartz, 1976a, 1993; Charboneau & Lander, 1991; Diamond, 2000; Kinnish & Strassberg, 2002; Kitzinger & Wilkinson, 1995). If change in many aspects of sexual orientation is possible without therapy, sometimes without even intention, than certainly such change is possible for some of those who will invest years of concentrated effort toward bringing about such change.

Then what does this study tell us beyond that some people in reparative therapy can and do significantly change, or at least believe that they do, in some aspects of orientation? It tells us that among such self-identified changers, most were not exclusively same-sexed oriented before treatment and most, perhaps all, were not exclusively other-sexed oriented after treatment. Does this surprise anyone? Perhaps there is more change reported by more people here than many of us would have expected. But this is a highly select group of men and women. These are among the "best" the reparative therapy movement could offer—they are the poster adults for this movement. Even if we accept their self-reports as fact, what these data say is that some unknown (but likely small, perhaps very small) fraction of those who are motivated to spend years trying, were able to move, often to a substantial degree, along most dimensions of the sexual orientation continuum. This is not trivial, but not terribly surprising either.

Although Spitzer made some laudable methodological improvements in his approach to an important research question, the design of his survey does not really put it into the category of "scientific evidence supporting the efficacy of reparative therapy" for which so many seem to be looking. We need to know a lot more about those who may benefit and those who may be harmed by an approach that labels gay/lesbian/bisexuals as pathological and in need of repair (an issue, by the way, that Spitzer avoids discussing). I doubt any of us has yet to see, let alone conduct, the perfect study on virtually any psychological issue, and certainly not one as complex as sexual orientation. Spitzer is to be congratulated on trying to "light a candle" rather than continuing to "curse the darkness" when it comes to trying to understand what happens as a result of reparative therapy. However, the amount of illumination provided by this particular candle does not strike me as quite as bright as Spitzer seems to believe. More importantly, it does not tell of nearly as much about reparative therapy as the media or the religious right is likely to want to make of it.

Spitzer's Oversight: Ethical-Philosophical Underpinnings of "Reparative Therapy"

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Spitzer introduces data from a self-selected sample who responded to requests for those who had "sustained some change in homosexual orientation" and concludes that "there was no evidence of harm" to these participants. Although Spitzer does not claim that this study provides any evidence that such interventions are harmless for all individuals who seek them, he suggests that further research be conducted. While Spitzer presents an ostensibly scientific call for further inquiry, the justification for changing sexual orientation is ultimately an ethical–philosophical one: "In fact, the ability to make such a choice should be considered fundamental to client autonomy and self-determination."

Although I do not question Spitzer's science, there is a glaring oversight in his article: a failure to examine the ethical and philosophical underpinnings of sexual orientation modification (SOM). I will refer to this as SOM instead of "reparative therapy," because the latter phrase suggests a clinically indicated treatment for a disorder, a method of repairing something that is broken. While heterosexuality may be normative, it is no longer argued in the clinical literature that heterosexuality is inherently healthier than a nonheterosexual orientation nor that its absence is a defect in need of fixing. Even though sexual orientation is no longer thought of as a preference, the desire to change it most clearly *is* a preference, one that is deeply influenced by culture. Further, SOM is a directionally neutral term, whereas reparative therapy inherently suggests a unidirectional modality. If Spitzer or other advocates of SOM were really value-neutral and supportive of client autonomy, they would also be calling for research into changing heterosexual orientation to bisexual or homosexual.

The ultimate issues regarding SOM are ethical–philosophical ones and not empirical. It is not whether sexual orientation *can* be changed, but whether it *should* be changed. To the extent that we are organic and have an ever greater command and control over our biology, a great many changes to our biologically influenced make-up will one day be possible. The implication of Spitzer's position is that on the basis of client autonomy and self-determination, any such change that is desired should be granted if it can be safely effected, but it is a glaring oversight to state this without examining the ramifications of such a position.

Since this is an ethical issue, I will follow the conventions of the philosophy of ethics and, rather than cite empirical research, will suggest three hypothetical cases that illustrate problems and inconsistencies with Spitzer's position. First, assume that in the near future a sequence of genes will be identified that contributes significantly to an individual's sexual orientation. Preimplantation genetic diagnosis (PGD) presently offers physicians and their patients the ability to screen embryos with certain sequences of DNA, such as those identified with genetically linked diseases. The same technology that already exists could easily be adapted to selectively decide which genetically influenced traits will be allowed to continue in future generations, as soon as specific genetic sequences are identified for such traits or predispositions. Thus, in this hypothetical example in which a sequence of genes has been identified, a much more effective SOM would be using PGD to screen out those embryos whose genetic inheritance predisposes them to a heightened probability of having a parentally unwanted sexual orientation. Spitzer's assumption about individual autonomy—do not deny the patient any available effective treatment for modifying sexual orientation—would surely extend to our hypothetical case, and this new, more efficacious method of SOM would be the free choice of prospective parents, perhaps even more for those living in a free market economy, where treatment providers insist on unrestricted trade in therapeutic interventions. A second example: consider the parallel with race. If an individual experiences discomfort because of racial prejudice, would one encourage the development of interventions that successfully altered skin tone if patients requested it, or would one abandon such "treatments" and instead undertake the harder work of changing societal attitudes and laws? A third example illustrates an inconsistency within Spitzer's position. Many primarily heterosexual individuals occasionally have same-sex attractions, and so one could suggest that SOM be pursued to aggressively encourage bisexuality and thus double the opportunity for finding a soulmate. Advocates of SOM generally assume without question that heterosexuality is the only change that should be pursued.

It could be argued that Spitzer's SOM does not involve such hypothetical cases, but is designed to deal with the reality of clients who are distressed by their nonheterosexuality and who genuinely wish to change themselves. Yet, consider this equally true reality: the mental health professions accept that healthy, happy sexual orientation is not confined to heterosexuality. It is further a reality that the desire for nonheterosexuals to change is not an inherent property of a nonheterosexual orientation, but a discomfort contributed to by certain cultural, religious, and social norms. Spitzer's response to this reality is to turn aside from the sources of the discomfort, to treat the proximate rather than the ultimate cause of the distress.

If one strips away the empirical veneer, there are chiefly three ethical–philosophical underpinnings of reparative therapy: (1) proponents of SOM are interested in taking individuals whose naturally occurring, potentially nondysfunctional sexual orientation causes them discomfort because of the social and cultural norms of *others*, and they wish to "help" these individuals conform to these norms, rather than addressing the dysfunctional norms themselves; (2) for individuals who themselves have intensely unsatisfactory adjustment to their own sexual orientation, advocates of SOM are unwilling to recommend techniques such as gay-affirmative therapy that may question or change aspects of self which are very clearly a matter of belief rather than biology, deciding instead that clients' dysfunctional beliefs about sexual orientation enjoy a privileged status which should not be challenged–despite the fact that many forms of empirically supported psychotherapy are based on the ability to modify cognitive distortions and change irrational beliefs; (3) whether called "reparative therapy" or something else, by offering such "treatments" therapists implicitly deny that nonheterosexual orientation can be healthy, and they instead reinforce the cognitive distortion that nonheterosexual orientation is defective, inferior, and/or immoral. For all three possibilities, it is not really client autonomy that is the basis of reparative therapy, but therapist autonomy to change clients, based chiefly on a therapist preference for heterosexuality. This is ultimately a value judgment and not something that can be fruitfully addressed through further empirical research.

Sexual Diversity and Change Along a Continuum of Bisexual Desire

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Despite the unusual care with which this study was undertaken, we are not entirely convinced that most, if any, of Spitzer's subjects experienced a change in sexual orientation from homosexual to heterosexual. The overarching problems are twofold: one methodological, pertaining to sample selection, and the other conceptual. The manner in which Spitzer's sample was composed suggests that many of his subjects were apt to experience cognitive dissonance around issues pertaining to their sexual orientation and this may have prompted them to lie or engage in elaborate self-deceptive narratives when reporting change in sexual orientation. As Spitzer notes, the vast majority

(93%) of his subjects stated that religion was "very" or "extremely" important in their lives. We question whether it is reasonable to expect that "extremely" religious individuals will honestly answer explicit questions about details of their sexuality, let alone details that they find deeply reprehensible and that they are actively attempting to repress. The role of religion in fostering an atmosphere of lies and enabling the production of self-deceptive narratives has been well documented in the form of many first-person narratives from "ex-ex-gays" (Duberman, 1991; Maniaci & Rzeznik, 1993). These narratives demonstrate how gay men and lesbians can be motivated to believe what they *want* to believe or are *told* to believe in matters of sexual orientation that they find morally distasteful. Perhaps more of a concern, however, is the fact that 19% of Spitzer's subjects were mental health professionals who espouse reparative therapy and directors of ex-gay ministries. In light of their personal and professional investment in such enterprises, it seems reasonable to assume that such individuals would be highly motivated to communicate the message that change in sexual orientation is not only possible, but desirable.

There are additional important conceptual problems with this study. Prior to "reparative" therapy, most of Spitzer's subjects reported that they were predominantly attracted to same-sex individuals and experienced some attraction to opposite-sex individuals. Post-therapy, most subjects reported the opposite pattern. Spitzer points out that reports of complete change from homosexual to heterosexual were uncommon. Unfortunately, he does not elaborate on this point, so it is impossible to say how many of his homosexual subjects, if any, experienced such change. As such, we believe that the title of this paper is misleading because most of Spitzer's subjects were bisexual, not homosexual. For such individuals, change, if it occurred, was on a continuum of bisexuality, and did not entail a binary shift from homosexual to heterosexual orientation. Spitzer obviously chose to categorize such individuals as gay or lesbian because they were predominantly attracted to same-sex sexual partners, but this reflects subjective decision-making processes on his part that ultimately mask the extent of bisexual variation that exists in the real world.

The existence of sexual diversity, or variation, is quickly becoming a growing area of inquiry in the biological and behavioral sciences. Humans are, if anything, a behaviorally diverse species and this diversity extends to sexual interactions. Given the extent to which behavioral diversity characterizes the expression of human sexuality, it does not seem particularly surprising to us that change in sexual orientation might be possible in *some* individuals without harmful effects on the individual. Such change seems particularly plausible along a continuum of bisexuality, as appears to be the case for most of Spitzer's subjects. In fact, a similar phenomenon has been observed among Japanese macaques (*Macaca fuscata*), a species of monkey endemic to Japan. In some populations of these monkeys, females engage in varying proportions of heterosexual and homosexual mounting, courtship, and sexual relationships from one annual mating season to the next (Vasey, 2002).

Thus, perhaps the most robust result of Spitzer's study is that some individuals can change along a continuum of bisexuality. However, it is equally, if not more, important to point out that sexual orientation is unlikely to be amenable to change in many, if not most, individuals and that attempts to bring about such change are likely to cause harm to the individual (American Psychiatric Association, 2000; Haldeman, 2001; Friedman & Downey, 2002). Indeed, Spitzer's study seems to support this conclusion. He noted that most of his subjects spent years, even decades, in therapy, attempting to change their sexual orientation. This time frame alone suggests that sexual orientation is, even in the most highly motivated individuals, remarkably resistant to change.

Some readers may interpret Spitzer's study as evidence that homosexual and bisexual orientations are chosen. We believe that such an interpretation is unfounded. Spitzer's study demonstrates individuals can choose to foster their latent heterosexual tendencies while repressing their overt homosexual tendencies. It does not provide evidence that individuals choose or learn to be homosexual. Change in sexual orientation over the lifespan does not indicate that one's primary sexual orientation (i.e., that which is first expressed) is a learned choice. A left-handed individual might choose to use only their right hand because of social restrictions (Dawson, 1977; Payne, 1987) and may, with practice, become adept at doing so, but this does not imply that the initial use of their left hand for daily tasks reflected any sort of conscious choice.

We believe that the next steps in this program of research (if any) are to, first, identify what parameters differentiate individuals that *can* change their sexual orientation in the *absence* of harmful effects, from those that either can not or will not. Second, the nature of change must be clarified. Is the change truly from homosexual to heterosexual or vice-versa? Is the change from homosexual or heterosexual to bisexual, or vice-versa? Or, is the change merely along some continuum of bisexual desire? Third, the relation between reparative therapy and change in sexual orientation may simply be spurious and reflect a correlation between either of these variables with religiosity. As such, future research should employ appropriate control groups to identify whether change in sexual orientation

is contingent on participation in some form of reparative therapy. We should not assume, a priori, however, that participation in such therapy is a necessary prerequisite for change. Finally, if change is contingent on therapy, the next question is which types of reparative therapy facilitate change and which do not.

In conclusion, there seems to be a basic contradiction in the overall message of this work. The emphasis on the efficacy of reparative therapy in changing sexual orientation seems to hinge on the notion that sexual orientation is flexible to begin with. If not, change would be impossible. Clearly, in the minds of some, sexual flexibility is real and is a good thing, but only insofar as it operates in the service of promoting sexual inflexibility in the form of a heterosexual endpoint. Strangely lost in this line of reasoning is the potential normativeness of the original variability to begin with. Acknowledging this contradiction might shift the focus of attention to the arguably more relevant issue of why there is any perceived need for change. To this end, the foundational assumption inherent in much reparative therapy that same-sex attraction reflects a developmental disorder needs to be critically addressed, particularly in light of the American Psychiatric Association's (2000) formal position that homosexuality is not a disordered outcome.

Science and the Nuremberg Code: A Question of Ethics and Harm

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This comment combines the perspectives of 14 researchers in the social and behavioral sciences from diverse backgrounds who have serious concerns about Spitzer's study on sexual orientation change through "reparative interventions." In his article, he reviewed research on sexual orientation change through reparative interventions, noting policies and position statements of key institutions, and deficiencies in previous studies. Spitzer recruited 143 men and 57 women based on their assertions that they had changed their homosexual orientation to a predominantly heterosexual orientation. Subjects were recruited through their therapists, pro-change religious ministries, and targeted advertising. He then assessed these individuals about their pre- and postreparative intervention sexual interests using a structured telephone interview. The main study finding is self-fulfilling: Participants selected through this sampling strategy reported changes that were the basis of their recruitment into the study.

Designing a study using as a conceptual framework the assumption that the heterosexual/homosexual binary provides an accurate description of the organization of human sexual desire and expression is out of step with the field of sexuality research (Stein, 1999). Studies over the last 50 years have shown cross-cultural variations in sexual expression and relationships (Kumar & Ross, 1991; Naz Foundation, 2000), which suggest that the binary is not evidence of nature at work; rather, it is evidence of the historical forces that continue to shape our concept of relationships (Crawford, Kippax, Rodden, Donohoe, & Van de Ven, 1998).

In addition to conceptualizing sexual expression in a way that is inconsistent with the scientific literature, this study suffers from bias introduced via the recruitment strategy and other serious methodological flaws, rendering it problematic from a scientific point of view. Spitzer acknowledged some methodological limitations of his study, including involvement of an unblinded research interviewer and the potential fallibility of participants' self-reports that were not corroborated with any objective measures. However, Spitzer did not make use of other systematic, well-established scientific procedures that are crucial to obtaining valid scientific results nor addressed how his results may have been affected by the many design flaws in his study. Therefore, it is important to underscore scientific problems in the study, including (1) a recruitment strategy resulting in not only a sample of convenience but a sample invested in demonstrating change, potentially building in a strong bias; (2) lack of a comparison or control group, leaving the study unable to demonstrate the effects of a reparative intervention or determine that a reparative intervention is responsible for any reported changes; (3) many measurement problems, including lack of operational definitions of "homosexuality," "heterosexuality," or "bisexuality," use of nonneutral language in the measures, and noncomparable measurement of "heterosexuality" and "homosexuality"; (4) use of a telephone interview with an unvalidated instrument; (5) lack of interviewer selection and training to reduce reactivity and social desirability pressures; (6) statistical analysis that did not address any of the research questions, since all statistical tests concerned gender differences in the responses. These tests lend an appearance of scientific weight to the study, which is misleading because gender differences were not the point of the study; and (7) lack

of expertise or experience on the part of the investigator in sexuality outcome studies.

Although veracity from research participants is a concern in any interview study, here the problem is greater than the typical wish to please the interviewer; these participants want or need to please *themselve*s, to believe their self-assertions of heterosexuality. Spitzer declared that "the key question is judging the credibility of the[ir] self-reports." Desire to avoid stigmatization by one's community can be a source of motivation for reporting treatment success. Contrary to Spitzer's contentions, studies whose outcomes depend on socially desirable responding never obtain absolute denial of undesirable behavior (Turner et al., 1998). It is an error to assume that a participant's potential *under*-reporting of unwanted and socially undesirable feelings represents veracity (Turner et al., 1998).

Spitzer failed to provide evidence for his assertion that "changing sexual orientation can be a rational, self-directed goal." In fact, he did not design a study that tests this hypothesis. Further, his statement that "change in sexual orientation seems plausible (again, at least to the author) as the participants used change strategies commonly effective in psychotherapy" is an unsupported inference. Referring to unmeasured psychotherapeutic techniques does not attest to change.

Our concerns go beyond the lack of rigor in this study's scientific methodology—the scientific problems lead to serious ethical problems as well. According to the *Nuremberg Code* (Directive 4; Nuremberg Code, 1949), "The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury." Research ethics dictate that the harm associated with any treatment be the first thing to be evaluated. If substantial harm is found, then any degree of "change" is irrelevant. Spitzer asserted that his study "questions the current conventional view that desire for therapy to change sexual orientation is always succumbing to societal pressure and irrational internalized homophobia," and that his findings demonstrated "no obvious harm." Both assertions are unsupported by his work. There was no objective measurement of harm to participants in this study; moreover, there was no attempt to assess the harm accruing to individuals who attempted but failed "reorientation." Harm from reparative interventions has been demonstrated (Shidlo & Schroeder, 2002) and there is a body of work on homophobia showing that health care providers' attitudes can be hazardous to their patients (Baker, 1993; Brotman, Ryan, Jalbert, & Rowe, 2002; Garofalo & Katz, 2001; Plummer, 1995). When doing research, scientists have the responsibility not only to ensure protection of the research subjects but also to minimize the negative impact that the research may have on the community the subjects represent. To disregard the potential for harm exposes populations that experience discrimination to additional risks. If the publication of this study makes psychotherapists more comfortable (perhaps in subtle ways) encouraging their homosexual patients to "change," then the study will have done further harm.

To imply that "change" in sexual orientation is possible, without indicating how likely it is for a given individual to achieve any degree of "change," suggests that most or all homosexuals can "change" orientation if sufficiently motivated and serves only to reinforce the false notion that homosexuality is a choice. Thus, creating an unsupported impression that reparative interventions are effective is unethical. There are social and cultural disincentives to being attracted to people of the same sex: violence, discrimination, marginalization, illegal status and imprisonment, individual and social abuse, and less than equal status in relation to public services (Bedard & Gertz, 2001; Hart, 2001; Ragins & Cornwell, 2001; Yomtoob, 2001). Being gay or lesbian is stigmatized in many workplaces, families, communities, and institutions (e.g., high schools), whereas there are significant social, cultural, and economic benefits available to those with a heterosexual orientation. Therefore, to be a gay man or a lesbian involves more than simply solving a question of sexual attraction or identity. Researchers conducting studies on sexual orientation have a responsibility to evaluate the potential implications of those studies. Feasibility does not justify poor science.

In hypothesizing that "same sex attractions . . . can be significantly diminished through development of stronger and more confident gender identification, possibly demystifying males and maleness," reparative interventions confuse gender role, sexual orientation, and sexual identity (Stein, 1999). Reparative interventions assume homosexuality is sinful, wrong, and, as quoted by Spitzer "reflect[s] a developmental disorder," making homosexuality pathological in the service of an agenda that aims at reinstitutionalizing homosexuality as a mental disorder. Harm will be done if this study is used to justify any attempt to relabel homosexuality as a mental disorder. Spitzer asserted that he began the study with a skeptical view of the outcome. This point is worth noting, as Spitzer (1981) has written "If there were a 'treatment' for homosexuality . . . that was available and effective in most cases, it is likely that there would be little objection to classifying it as a disorder" (p. 213).

We are troubled by the publication of work filled with scientific flaws that disregards harm and conveys a number of false impressions. It is likely that this study will attract considerable attention in the media, and that lay

audiences will not appreciate its lack of scientific rigor. Homophobic and heterosexist audiences will use it to further their agendas. Documented consequences of homophobia include suicide among young homosexual men and women (Cochran & Mays, 2000; Fergusson, Horwood, & Beautrais, 1999; Garofalo et al., 1999; Herrel et al., 1999; Hershberger & D'Augelli, 1995; McDaniel et al., 2001; Remafedi, 1998, 1999a, 1999b, 2002; Remafedi, French, Story, Resnick, & Blum, 1998). We fear the repercussions of this study, including an increase in suffering, prejudice, and discrimination (Stein, 1998; Suppe, 1984).

Sexual Reorientation Therapy: Is It Ever Ethical? Can It Ever Change Sexual Orientation?

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I address four questions—methodological, ethical, and conceptual/theoretical—raised by Spitzer's courageous report on 200 subjects claiming posttherapy changes in sexual orientation from homosexuality towards heterosexuality: (1) Are subjects' responses dismissable as lies or self-deceptions, as some critics claim? (2) Is the study's design too weak to show anything of scientific interest, as critics also claim? (3) Does the study imply that reorientation therapy is sometimes ethically allowable, contrary to recent professional association edicts? (4) Do the data demonstrate change in core sexual orientation itself, as Spitzer claims?

Can Subjects' Reports Be Dismissed as Deceptions?

Given the subjects' personal and political motivations to represent therapy as successfully changing sexual orientation or related variables (I use "sexual reorientation" for convenience throughout, but only later consider whether sexual orientation itself really changed), it remains possible that subjects massively lied or deceived themselves, as critics suggest. However, to assume without evidence that reports of changes must be deceptions begs the question of whether change sometimes occurs. Moreover, for reasons somewhat different from Spitzer's, I believe the data suggest that lies and self-deceptions are probably not the major source of reported changes.

First, some changes are publicly verifiable and thus presumably not as subject to lies or self-deception, such as the enormous increase in the percentage of subjects in ongoing heterosexual relationships (for males, from 26% PRE to 87% POST). Although this variable indicates sexual orientation less directly than others, changes in relationship behavior are important in themselves and tend to corroborate reports of psychological changes that may facilitate relationship changes.

Second, regarding crucial subjective experience indicators of sexual orientation, if subjects were massively prevaricating or self-deceiving to support evidence of change, why would so many males report POST continuing significant same-sex masturbatory fantasies (45%) and significant same-sex attraction (50%)? It might be argued that subjects were sophisticated enough deceivers to avoid extreme claims. However, subjects were highly motivated to deny *any* continued homosexual interest. Moreover, in usual social desirability responses, moderation may be exercised because extremes are uncommon and sometimes even of questionable desirability (e.g., always honest). In contrast, complete and exclusive heterosexuality is considered both common and socially desirable (within subjects' communities), so the "moderate lie" hypothesis lacks motivation.

Third, the Dyadic Adjustment Scale (DAS) was independently completed by the subjects' partners POST, and their scores corroborated the subjects' positive relationship reports. Spitzer also pertinently observes that both the subjects' and their partners' DAS scores were not inflated from norms. Again, one might argue that spouses also lied. However, such increasingly elaborate ad hoc hypotheses, while not impossible, demand independent evidence to be taken seriously.

Fourth, when asked to explain changes, subjects generally cited standard cognitive, psychodynamic, and behavioral therapy techniques that have face validity as causes of such changes. Indeed, the suggestion that standard therapeutic techniques can sometimes influence sexual object choice is a fascinating aspect of Spitzer's study.

Taken together, these considerations, plus the current lack of any evidence of massive deception, suggest the data should be taken to have some prima facie credibility.

Is the Study Methodologically Too Weak to Show Anything of Scientific Importance?

Many critics set up straw men by misinterpreting the study's purpose, then criticizing the study for not achieving that purpose. Certainly, given the study's retrospective nature, subject self-selection, and lack of controls, the study cannot *prove* anything about the general or even occasional effectiveness of sexual reorientation therapy. Rather, it offers inconclusive prima facie evidence that a few severely conflicted and highly motivated patients may be enabled by this kind of therapy to change their behavior and experiences in ways they believe are helpful.

Why would such a weak conclusion be of any interest? A study's scientific importance is a function of the claims it addresses. The current scientific context contains explicit or implicit universal claims that sexual reorientation therapy is unhelpful and/or harmful. Spitzer's study offers prima facie exceptions that cast doubt on these generalizations; thus, it is scientifically useful.

Comparably weak studies have influenced other areas subject to universal hypotheses. For example, when some alcoholism researchers maintained that alcoholism is a universal disease with a predictable course of deterioration, methodologically weak studies using newspaper ads to find people who self-reported having recovered from alcoholism without treatment had substantial impact. Despite their inconclusiveness, the studies raised prima facie doubts regarding the universal disease entity hypothesis and thus challenged attitudes about treatment derived from it.

What Are the Study's Implications for the Ethics of Reorientation Therapy?

Given the historical and ongoing oppression of homosexual individuals, it is understandable that therapeutic attempts to change homosexual orientation have been looked upon with suspicion, often justifiably so. However, in the absence of evidence that subjects' self-reports lack credibility, Spitzer's study offers prima facie support for the ethical acceptability of reorientation therapy in some cases of severe ego-dystonic homosexuality. Subjects' symptoms (depression, bothered by homosexual feelings) declined precipitously from PRE to POST. Even if reorientation therapy only rarely offers substantial benefits, it is potentially unethical to ignore evidence of such substantial reduction of suffering in some highly motivated, deeply conflicted patients when considering treatment options, especially given the lack of any proven alternative. Under such conditions, a difficult decision regarding possible benefits versus possible harms must sometimes be made, and the ethical focus should be on informed consent and sensitivity to patient preferences rather than on a general ethical judgment applying to all patients. The study thus implies that recent professional association statements declaring such therapy unethical are potentially oppressive to some clients and should be rescinded or revised.

The study alerts us to two clinical circumstances in which attempts to change sexual orientation in severely ego-dystonic homosexual individuals may be ethically justified by patient self-determination and need: (1) The patient strongly wants to save or improve a marriage he or she considers more important than satisfying homosexual desires. For many patients, marital dissolution may be the best choice, but any rule about treatment goals that ignores individual circumstances and preferences is ethically unacceptable. (2) The patient's deeply held religious, social (wanting to remain part of a community), or moral convictions cause severe conflict with homosexual desires, and the patient strongly considers the convictions more important than the desires.

Spitzer's study particularly supports the occasional power of therapy to improve marital heterosexual functioning of ego-dystonic homosexual individuals. Spitzer demandingly defines "good heterosexual functioning" (GHF) as requiring a loving ongoing heterosexual relationship with sex at least several times monthly, high emotional and physical satisfaction, and at most rare same-sex fantasies during heterosexual sex. Of 55 subjects in continuing PRE-to-POST marital relationships with regular sex, only 5% displayed GHF PRE versus 84% POST. In the overall male sample, just 3 (2.1%) displayed GHF PRE versus 94 (65.7%) POST (Spitzer, personal communication, March 15, 2003). It would be unethical to preclude such help for homosexual patients' marriages or marital aspirations.

The ethics of sexual reorientation therapy must be distinguished from other issues. Many therapists practicing sexual reorientation therapy unethically impose an antigay bias on clients; but therapists need not do so, and it is also unethical to impose an antichange bias. Most of Spitzer's subjects almost certainly had negative attitudes towards the gay rights movement; nonetheless, they have a right to help that is not politically constrained. Many critics of reorientation therapy assume its acceptance implies the repathologization of homosexuality (i.e., that homosexuality is considered a disorder), but there is no such implication and it is generally recognized that individuals with nondisorders may benefit from treatment (even the *DSM-IV* contains a section coding nondisorder problems that are often the focus of treatment). Spitzer's subjects clearly needed help with their intense conflicts whether or not they had a disorder.

What about the objection that the patient's desire to change homosexuality is always due to internalized homophobia; thus, sexual reorientation therapy is always collaboration with social oppression? This interesting but unproven hypothesis is a one-size-fits-all etiological speculation that ignores the diversity of clients' meaning systems and should not take priority over client self-determination. Giving homoerotic sexual desires higher priority than relationship commitments and religious meanings with which they are in conflict is a value judgment that is itself a product of one internalized

socially constructed meaning system among many. Imposing this approach on all clients unethically sacrifices individual clients' possible relief from suffering on the altar of sexual politics. It is all too easy for the oppressed in this way to inadvertently rationalize becoming the oppressor.

Did Reorientation Therapy Change Core Sexual Orientation?

Granting that reorientation therapy likely benefited some subjects and is sometimes ethically defensible, did at least incremental changes in core sexual orientation also occur, as Spitzer claims? Impressively, Spitzer goes beyond reporting changes in subjects' orientational self-labeling, symptoms, and behavior, which changed dramatically but do not necessarily indicate orientation change. He also reported changes in experiential variables that are generally more valid indicators of sexual orientation (e.g., fantasies during masturbation and intercourse, attraction, lustful looking), and these changed substantially, although not as much as self-labeling, symptoms, and behavior.

One common objection to claims of orientation change is that subjects were bisexual PRE and simply suppressed homosexual responses and focused on heterosexual responses POST. Even if true, this objection would only cast doubt on whether core sexual orientation changed. It would not vitiate the importance of the changes subjects reported. In any event, this objection is countered by Spitzer's report that even those most extreme and exclusive on homosexual measures and history prior to treatment changed in ways and at rates similar to others. If, as some claim, everyone is inherently bisexual and just selecting from a menu of sexual object choice options, then the whole notion of sexual orientation has to be rethought.

Nonetheless, uncertainties about orientation change remain because of subtleties in the relation of the orientation construct to the study's measures. The measures (e.g., spontaneous masturbation fantasies) are excellent indicators of sexual orientation in the general population, but have unknown validity in subjects consciously attempting to influence their "spontaneous" desires. Sexual orientation is a dispositional/theoretical construct referring to a hypothesized internal structure that disposes one to respond with desire to males or females or both. Such a disposition is consistent with the desires not actually being experienced (i.e., remaining "latent").

Blocking a disposition's expression is not the same as changing it. Salt remains water-soluble even when stored away from water and even though it fails to dissolve when placed in water under high pressure, because water solubility refers to a disposition to dissolve in water under certain standard circumstances. Correspondingly, potential desires and fantasies that under standard circumstances would be generated by one's sexual orientation may be habitually blocked from conscious development with minimal effort or awareness through techniques such as redirection of attention, thought-stopping, or placing experiences within narratives portraying them as irrational expressions of unresolved family-of-origin problems. Such efforts may or may not solidify into enduring structural changes in core dispositions.

Consider an analogy: A married male patient, troubled by a low-threshold disposition to intensely sexually desire attractive women strangers, cultivated a counterfantasy that the woman would be horrifically difficult in a relationship, bursting the erotic fantasy bubble. The counterfantasy became so automatic and effective that the patient stopped experiencing substantial longing and claimed to be cured. However, when he subsequently became casually acquainted with one such woman, his counterfantasy became implausible, his defense crumbled, and his disposition expressed itself in desire, leading to an affair. The conceptual moral is that to restrain experiential expression of a desire-disposition is not necessarily to change the core disposition.

Of course, habitual inattention or reframing may eventually solidify into new psychic structures and dispositions that endure across environments and constitute true change in core sexual orientation. However, 21% of Spitzer's subjects were still in treatment POST, presumably needing continued intervention to maintain new experiences. Others reported actively counteracting spontaneous homoerotic desires. Remaining subjects may have developed habitualized strategies for influencing desire and fantasy, but these strategies' stability and effectiveness across situations remains unknown.

Uncertainties about orientation change notwithstanding, the findings that subjects report impressive changes toward more satisfying lives, including major changes in sexual behavior and experiences and reduction in symptoms, stand as prima facie arguments for reorientation therapy's acceptability in carefully selected cases fitting the profile of Spitzer's subjects, with due awareness of and informed consent regarding the likelihood of failure and possible negative effects. Moreover, Spitzer's provocative report usefully moves questions about orientation change from the political to the scientific domain and opens them to fresh critical scrutiny, hopefully inaugurating overdue scientific examination of issues currently highly politicized.

Heterosexual Identities, Sexual Reorientation Therapies, and Science

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Despite overwhelming opposition by the most respected scientific and professional mental health organizations (e.g., American Academy of Pediatrics, 1983; American Psychiatric Association, 1999, 2000; American Psychological Association, 1998a, pp. 934–935; National Association of Social Work, 1997), there appears to be increasing momentum behind attempts to sanction the credibility of sexual reorientation therapies (e.g., Nicolosi, 1991; Throckmorton, 2002; Yarhouse & Burkett, 2002). For the most part, these efforts are directed by a small number of vocal individuals associated with conservative political and religious movements (e.g., Exodus International, the Family Research Council, and the National Association for Research and Therapy of Homosexuality). One provocative aspect of Spitzer's article is that he has not been associated with these organizations, and instead was a central figure in the removal of homosexuality as a mental disorder in the *Diagnostic and Statistical Manual of Mental Disorders* (see Bayer, 1981). Thus, his research has fostered extensive fanfare among those who promote sexual reorientation therapies (e.g., Nicolosi, 2001). In this article, I provide a critique of Spitzer's work, articulating a number of scientific and conceptual flaws that result in serious concerns about the validity of his conclusions.

Is This Science?

There are a host of flaws in the research methodology, drastically limiting the types of conclusions that can be drawn from the data. Yet, Spitzer extended his analysis far beyond the data and drew conclusions that result from faulty, nonscientific logic. The numerous flaws include but are not limited to (1) a sample intentionally selected to include only individuals who reported change in sexual attraction after participating in reorientation therapy, and were likely to have an investment in reporting positive outcomes of reorientation therapy; (2) a transparent, self-report, retrospective design that relied on subjective comparisons of pre- and posttherapy outcomes that provided no protection against participant biases; (3) failure to fully describe the wide-ranging types of reorientation therapy experiences that had occurred across decades, some of which was ongoing and others which had been terminated many years before the study; (4) demand characteristics inherent to the research procedure that were likely to prompt responses suggesting positive outcomes of reorientation therapy; and (5) lack of adequate operationalization of the variables and a high likelihood that measurement was both unreliable and invalid.

Although I could spend the remainder of the space allotted on a detailed explication of these points, instead I will attend primarily to additional conceptual issues that interact with these methodological flaws and seriously undermine the validity of the data and any conclusions drawn from it.

Defining and Measuring Sexual Orientations and Identities

Any researcher intending to address the potential for change in sexual orientation must first provide an accurate definition of the construct under study, and operationalize the construct within some method of measurement. Spitzer never effectively defined any of the variables under study, and never provided reliability and validity information about his measures. *Sexual orientation* refers to "an enduring emotional, romantic, sexual or affectional attraction to [(an)other person(s)] . . . that ranges from exclusive homosexuality to exclusive heterosexuality and includes various forms of bisexuality" (American Psychological Association, 1998b). Recognition, acceptance, and identification with one's sexual orientation can be collectively understood as *sexual orientation identity*, which is only one facet of a broad concept of *sexual identity* (Worthington, Savoy, Dillon, & Vernaglia, 2002).

Spitzer only implicitly acknowledged the distinction between sexual orientation and sexual identity, and expressed the belief that both were measured via the retrospective, self-report interviews conducted over the telephone with his participants. Measurement of the various constructs that converge on sexual orientation identity is a formidable task, and problems in measurement will frequently result in misleading research outcomes (Worthington & Navarro, 2003). It has long been known that it is extremely difficult to obtain accurate self-reports regarding sexual contact, arousal, attraction, and fantasy (Masters & Johnson, 1979), which therefore diminishes our ability to simply and easily disentangle sexual orientations from the sexual identities of research participants, in part due to the influence of personal and societal homonegativity. As Spitzer pointed out, physiological methods result in much more reliable and valid measurements for sexual arousal, one of the key elements of sexual orientation. Thus, irrespective of a participant's intent regarding deception, sexual orientations and sexual identities are inherently intertwined when self-report instruments are used.

Since Spitzer did not adequately measure sexual orientation, he was unable to answer the central research question used in his title, "Can some gay men and lesbians change their sexual orientation?" In fact, there is an abundant literature that demonstrates that sexual orientations are highly impenetrable to a wide variety of interventions, from the seemingly benign to the most distastefully heinous (for a thorough review, see Murphy, 1992). Even some proponents of sexual reorientation therapies have begun to acknowledge that research clearly demonstrates that sexual orientations are relatively immutable, and instead have begun to target sexual orientation identity as the object of change (e.g., M. Yarhouse, personal communication, December 2, 2002). On the basis of this conceptual analysis, we must reach the conclusion that Spitzer's data did not contain acceptable evidence of sexual orientation change. As such, we are left with the question, "Can some individuals with a history of same-sex attraction, arousal, and behavior change their sexual orientation *identity* and lead functional heterosexual lives?" Before attempting to address this question, we must further disentangle heterosexual identities from sexual orientation identities more broadly.

Heterosexual Identity Development

Worthington et al. (2002) described a model of heterosexual identity development that provides a framework by which Spitzer's conclusions can be further analyzed. We defined *heterosexual identity development* as the individual and social processes by which heterosexually identified persons acknowledge and define their sexual needs, values, sexual orientation, and preferences for sexual activities, modes of sexual expression, and characteristics of sexual partners. Careful reading of Spitzer's article demonstrates that he has confounded group membership identity, preferences for characteristics of sexual partners, preferred sexual activities, preferred modes of sexual expression, and sexual values with sexual orientation and sexual orientation identity. For example, few, if any, of these individuals were likely to have ever achieved a completely gay or lesbian group membership identity (e.g., Fassinger & Miller, 1996; McCarn & Fassinger, 1996), primarily because it is apparent that they did not desire to do so. Despite the fact that Spitzer labeled his participants as "gay men" and "lesbians" who became "heterosexuals," it is apparent that the participants in Spitzer's sample had probably always perceived their group membership as "heterosexual" despite recognizing and acknowledging their history of same-sex arousal, fantasy, and attraction (sexual orientation identity). Therefore, at best Spitzer's sample comprises a group of individuals of unknown sexual orientation, who probably always identified their group membership as heterosexual, and thus cannot be said to have changed their sexual orientations or sexual orientation identities in any verifiable way.

Furthermore, Worthington et al. theorized that the highest level of identity integration or *synthesis* entails congruence among all sexual identity dimensions, which requires active exploration of sexual needs, values, orientation, and preferences for characteristics of sexual partners, modes of sexual expression, and sexual activities. Spitzer implicitly acknowledged the importance of congruence in his selection of the variables of interest, yet he left this important variable uninvestigated. Instead, Spitzer relied heavily on self-reported dyadic adjustment in the context of a heterosexual relationship as evidence for "good heterosexual functioning," but he neglected to address two important issues: (a) that the data presented tell us nothing about the extent to which individual participants achieved congruence among various dimensions of sexual identity, and (b) that the process of reorientation therapies seemed to intensely *discourage* active exploration of important components of sexual identity, thus making synthesis highly unlikely among his participants. To the degree that individuals experience incongruence among various dimensions of sexual identity, there is little hope that they will truly achieve an undistorted sense of good heterosexual functioning. As such, Spitzer's claims for good heterosexual functioning among his participants were based on overly simplistic notions of what it means to be heterosexual in the face of tremendous complexity in human sexual functioning.

Conclusion

In this commentary, I have argued that there are a host of scientific and conceptual flaws inherent to the work reported by Spitzer. From this analysis, I believe that the only valid conclusion we can draw from Spitzer's data is that it is possible to locate 200 individuals who are motivated to retrospectively report changes in their sexual functioning as a means of promoting the use of sexual reorientation therapies. Despite all of the numerous assertions that he believes the data to be useful and untainted, credible behavioral science cannot be based solely on the persuasive power or reputation of a single researcher. There are substantial dangers involved in the publication of Spitzer's article because of the politically charged atmosphere within which the findings and conclusions are presented. It is unfortunate that the provocative nature of the article might continue to result in widespread publicity and fanfare that ignores the lack of scientific rigor and conceptual flaws described herein.

How Spitzer's Study Gives a Voice to the Disenfranchised Within a Minority Group

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There is no question today that people who identify as lesbian, gay, and bisexual (LGB) are a sexual minority group, but what is less clear to some is that LGB persons are part of a larger population of those who experience same-sex attraction. In other words, some people who experience same-sex attraction report a homosexual or bisexual orientation. Among those who report a homosexual or bisexual orientation, some integrate their experiences of attraction into an LGB identity. However, there is a disenfranchised group of persons who experience same-sex attraction but *dis*-identify with a gay identity. They have no voice in the community of persons who experience same-sex attraction, in part because that community is currently represented by those who have integrated their experiences of same-sex attraction into an LGB identity. This is one of the ways in which Spitzer's study has made a contribution: it has given a voice to the disenfranchised within a minority group.

A second contribution is that Spitzer's study supports the view that some people experience a change of sexual orientation. Spitzer's study is not a unique contribution in this sense. No, there are many studies of people who either claim to have experienced a change of sexual orientation. Treatment approaches of studies published between 1950 and the mid-1980s included behavioral interventions (e.g., Freeman & Meyer, 1975; Schwartz & Masters, 1984), aversion treatments (e.g., MacCulloch & Feldman, 1967; McConaghy, 1970), and psychoanalysis (e.g., Hatterer, 1970). Group therapy has also been found to be successful (e.g., Birk, 1974; Munzer, 1965; Pittman & DeYoung, 1971; Truax & Tourney, 1971). The major methodological concerns with these studies were that the measures of "success" varied considerably from study to study (Haldeman, 1994). Some studies focused more on increasing heterosexual behavior, fantasy, or desire, while others focused on decreasing homosexual behavior, fantasy, or desire. But nearly every study ever conducted reported that some people experienced successful change of some kind. More recent surveys of people who say they experience change of orientation (e.g., Schaeffer, Hyde, Kroencke, McCormick, & Nottebaum, 2000; Schaeffer, Nottebaum, Smith, Dech, & Krawczyk, 1999) or who have worked with patients or clients who they believe changed their sexual orientation (e.g., MacIntosh, 1994) also support the view that some people can experience a change in their sexual orientation.

Even studies that are being mistakenly cited to suggest that reorientation therapies are *intrinsically* harmful point to the possibility of successful change of orientation (e.g., Shidlo & Schroeder, 2002). Shidlo and Schroeder reported the results from their study of 202 "consumers" of reorientation therapy. Their study was originally titled "Homophobic Therapies: Documenting the Damage," and was later changed to "Changing Sexual Orientation: Does Counseling Work?" (see pp. 251, 259) because they found that some people reported benefits to reorientation therapy, including, in a few instances, change of orientation. Although the percentage of success ("self-perceived success") was small ($n = 26$ or 13%), we cannot draw conclusions from their study as to the likelihood of successful change (or unsuccessful change or harm) because the study was of a convenience sample and not representative of the population of persons who have a homosexual orientation and seek change. This is in no way meant to detract from the possibility that some people may report harm from their experience in reorientation therapy, and this is an empirical question that should be explored further, but anyone familiar with the research in this area would have to acknowledge that the limitations discussed in these two studies sound familiar. The methodological limitations in the Shidlo and Schroeder study are, in some important ways, quite similar to those limitations found in the Spitzer study. To reject one study on methodological grounds means rejecting the other. Of course, the other option is to try to learn what we can from both studies while keeping in mind the methodological limitations of each.

To continue with the methodological limitations, Spitzer's study can also be criticized for relying upon client recall. Memory recall of this sort can be unreliable. To be fair, however, much of what we know about LGB experiences, including theories for the etiology of sexual orientation and studies of sexual identity development and synthesis, is based upon retrospective studies utilizing memory recall. Anytime proponents of the biological hypothesis for the etiology of homosexuality cite the Bell et al. (1981) study they are referencing a study that utilized retrospective memory recall. The Shidlo and Schroeder (2002) study also relied upon memory recall and is subject to the same criticism.

Some will perhaps say that what is needed is a controlled experiment—that researchers should solicit volunteers who want to change their sexual orientation and randomly assign half of the group to a wait-list control group while the other half pursues a course of reorientation therapy. Of course, this would be an ideal design, but it is

impractical for many reasons. It would be hard to imagine that researchers could solicit a group of volunteers who were not participating to either prove or disprove claims of successful change. Another reason such a study is impractical is that, if Spitzer's study is any indication, it would mean having the control group wait for 3–5 years before having access to treatment. In Spitzer's study, he reports it took an average of 2 years for participants to begin to experience change, and an average of 5 years for 79% of participants to experience a change of orientation. This is far too long to ask a control group to wait for professional services.

These criticisms do point to a legitimate concern. There is a need for studies with improved methodology. This would include a prospective longitudinal design in which participants provide information on sexual behavior, attractions, fantasy, and so on, prior to or in the early stages of therapy, and then tracked over time, so that something as potentially unreliable as memory recall would not play so prominent a role in studies that touch on such a controversial topic.

How ought we, then, understand Spitzer's study? The key to understanding Spitzer's study is to understand what he intended to examine. His intention was to study whether *anyone* had *ever* experienced a change of sexual orientation. He was not studying how likely it is that someone will experience change of orientation. This is a crucial distinction. Spitzer's study is not a treatment efficacy study, and scientists should not criticize it for failing to provide evidence for that which it was never designed. Critics would do well to make a more accurate comparison of Spitzer's study to the famous studies by Hooker in the 1950s. When Hooker (1957) studied the topic of psychopathology among homosexuals, she asked the question of whether all homosexuals are manifestly disturbed to the extent that a panel of health professionals could distinguish them from heterosexuals. Her study did not prove that all homosexuals are healthy, just as Spitzer did not prove that all homosexuals can change their sexual orientation. But Hooker demonstrated that some homosexuals are as healthy as heterosexuals on various measures of mental health symptoms (Jones & Yarhouse, 2000). Spitzer's study accomplishes something akin to this: whether it is ever possible for a person with a homosexual orientation to report change in the direction of a heterosexual orientation. His study suggests that the answer to this question is "Yes." For those who experience same-sex attraction and do not wish to integrate their experiences of same-sex attraction into a gay identity, for those who have felt disenfranchised within a minority group, this may be a welcome finding. More research is needed to flesh out which variables are better predictors of the likelihood of change, and it would behoove researchers interested in the scientific study of sexuality to try to answer such complicated questions.

NOTES

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