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On the Pursuit of Sound Science for the Betterment of the American Indian Community: Reply to Beals et al

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Abstract

We argue that ongoing criticism of existing theories, the development of alternative theories, and empirical theory tests offer the best chance for advancing American Indian research. We, therefore note our appreciation for Beals et al.'s comments. We nevertheless did disagree with many of Beals et al.'s specific claims, noting that (a) our characterization of the existing literature on reservation-dwelling American Indian drinking was accurate; (b) no argument made by Beals et al. undermines their theoretical contention that there is a relative lack of contingency between access to basic life reinforcers and sobriety on many reservations; (c) our theory was developed in a responsible manner: a reservation-tied American Indian developed the theory, which was reviewed by a reservation leadership team, a cultural consultant, and reviewers for this journal, at least one of whom consulted leaders of other reservations; and (d) our theory was based on previous interdisciplinary theory development. We encourage the development and testing of new, alternative theories.

Beals et al. (this volume) offer a commentary on our paper introducing a theory of reservation-dwelling American Indian (RAI) alcohol use risk (Spillane & Smith, 2007). As scientists committed to furthering the welfare of American Indians (AIs), we embrace earnest scientific debate as the best means of advancing this cause. We therefore appreciate the comments made by Beals et al. as part of our shared effort to develop knowledge of use to the RAI community. Beals et al. offered three basic criticisms of our paper: First, that we did not accurately characterize the literature on AI problem drinking; second, that existing evidence undermines our argument that, on many reservations, there is a relative absence of contingency between sobriety and access to basic life necessities (which we called standard life reinforcers: SLRs); and third, that we developed our theory in an irresponsible way. We must respectfully disagree with each of these points. Our specific responses follow.

Drinking Behavior on AI Reservations

Contrary to Beals et al., we did not make the global assertion that RAIs have higher rates of problem drinking than do either Caucasians or AIs living in non-reservation settings. Rather, we reported the following. First, consistent with the observation that Northern Plains (NP) and Southwestern (SW) tribes had different levels of disruption to their traditional ways of life due to the arrival of Europeans, Mitchell et al. (2003) found higher rates of alcohol use and substantially higher rates of alcohol use disorders among NP AIs than among SW AIs. Second, although RAIs and Caucasians have generally similar rates of drinking frequency, NPs from the former group have higher rates of binge drinking (May & Gossage, 2001) and higher rates of lifetime alcohol dependence diagnosis than do general population U.S. individuals (Spicer et al., 2003).

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Beals et al. note that one study (Beauvais, 1992) did not provide significance tests for the differences between RAIs and others, and so questioned our use of that information. We have conducted a series of χ^2 tests on the Beauvais (1992) data. Not surprisingly, since Beauvais's overall sample was over 25,000 each for 8th and 12th graders, the substantial differences in lifetime and 30-day prevalence of having gotten drunk that led to our conclusion were statistically significant. We agree that more epidemiological data are needed, and it is of course true that alcohol use rates vary a great deal across tribes and regions, but existing data clearly indicate average higher levels of problem drinking, alcohol-related problems, and alcohol use disorders for NP RAIs as compared to Caucasians. Our characterization was accurate.

The Relative Non-contingency Between SLRs and Sobriety

Beals et al. disagreed with our view that many of the reinforcers to which we referred were either generally available or largely unavailable. We must first agree with them that our use of the term "universal" in this context gave a more extreme impression than we had intended. We view the degree of non-contingency between SLRs and sobriety as existing on a continuum, with a relatively high level of non-contingency on many, but of course not all, reservations. With these caveats, we next argue that consideration of three sample SLRs suggests support of our position.

Concerning employment, Beals et al. relied on an average rate of unemployment across reservations to argue that employment is a generally available reinforcer (14% versus 6% of the total population). We have three objections to this argument. First, by reporting an average across different reservations in different contexts, they have obscured the strikingly high levels of unemployment faced by many reservations. Second, the highest rate of unemployment in the general U.S. population since the great depression was 10.8% (Urquhart & Hewson, 1983), so the average rate across reservations is far beyond what the U.S. as a country has had to face. Third, we offered a more nuanced view in our paper. We observed that many available jobs involved unskilled, and often seasonal, labor. As we reported, the result, often, is income at or below the poverty level. The reinforcement of jobs with adequate pay is far too unavailable for many RAIs: Heavy drinking can only reduce by a small amount RAIs' access to this largely unavailable reinforcer.

Concerning health care, we noted that federally recognized AIs are eligible to receive health care from the Indian Health Service without charge. We further noted that, in practice, access to health care is sometimes compromised in settings where there are few providers or one needs to travel a long distance to gain access to health care. The crucial point for our behavioral theory is that health care access does not depend on one's drinking status. In contrast to many middle class Caucasians, RAIs do not lose access to health care secondary to job loss from drinking-related problems. As we said, health care access is largely unrelated to drinking status.

Concerning housing, contrary to Beals et al.'s implication, we specifically noted the low quality and overcrowded nature of much RAI housing. Although such housing would not be viewed as rewarding to middle class Americans, and although there is an obvious need for improved housing on reservations, access to the basic need of a roof over one's head does not depend on sobriety. Although many members of the general U.S. population do lose their houses due to an inability to pay, that is not the case for RAIs. On most U.S. reservations, housing costs are based on ability to pay: If one cannot pay, one continues to live in one's house without paying. The basic need of housing is generally available and access is not contingent on one's drinking behavior. No observation made by Beals et al. undermines our theory of the relative non-contingency between access to many basic life reinforcers and sobriety for RAIs.

Responsible Conduct in Reviewing this Literature and in Conducting this Research

Beals et al. argue that researchers have a responsibility to include the perspectives of those most impacted by their work. We fully agree and our theory was both shaped by, and evaluated by, RAIs. The first author (Spillane) is an AI: Her experiences on the reservation where she has visited many times, and where many members of her family have lived and continue to live, led to her development of the core, behavioral component of our model. Our empirical test of the model took place after we presented the theory and the study to a reservation's leadership. They approved the study, as did a cultural consultant. Beals et al. contend that our theory of non-contingency between sobriety and SLR access is inconsistent with the experience of some RAIs, but it is not inconsistent with the experience of the first author. In addition, one reviewer of the target article said this in his/her review: "Interestingly, a reservation Tribe that the reviewer is working with recently passed a Tribal regulation requiring Tribal members living in Tribal housing sign a sobriety contract and be drug-tested regularly. A positive drug test would mean losing the opportunity for Tribal housing. This would seem to support the author's theory."

Beals et al. argued that our contention that non-contingency between sobriety and SLR access may facilitate AI drinking was "extremely dangerous" because it could offer an impetus to decrease AI funding. We strongly disagree with this perspective. Scientists must be free to develop and offer theories. Scientists cannot inhibit theory development out of a fear that a theory might be misunderstood by policy makers. Inhibition of science can only slow the development of theories that lead to improved quality of life for RAIs: A reduction in funding would be just such a misinterpretation. For housing, health care, and adequately paying jobs to be contingent on sobriety, they of course have to be accessible to those who are sober. We strongly support increased funding for Indian Nation. Relatedly, we certainly agree that other health-related problems on reservations merit increased attention by researchers and service providers.

We were surprised by Beals et al.'s implication that we had somehow implied that alcohol problems are universal in Native communities and thus participated in ethnic gloss. When we introduced our theory at the beginning of our article, we specifically decried the failure to distinguish between mean levels of AI problem drinking and individual differences in drinking among AIs. The second half of our theory is devoted to consideration of factors contributing to individual differences in RAI consumption. We felt that one important contribution of our paper was precisely to draw the distinction between contextual effects on the one hand, which may alter mean levels of problem drinking, and the wide range of individual differences in drinking on the other hand.

Beals et al. note the importance of interdisciplinary research. We of course agree. Spillane and Smith (2007) followed interdisciplinary theory development on the topic of universal and culturally-specific psychological processes by us (Smith, Spillane, & Annus, 2006) and others (e.g., Norenzayan & Heine, 2005). Beals et al. provide anecdotes indicating that there are individuals from a variety of disciplines with different perspectives from ours. Because we believe the most fruitful means to improve the lives of AIs involves the rigorous exchange and empirical examination of theories, we encourage those authors and others to advance and test integrative theories that consider both contextual and individual-level processes, ideally in ways more sophisticated than we have done.

Possible tests of, and adaptations to, the Spillane and Smith model

It will be important to test empirically whether some RAIs expect heavy alcohol consumption to have less impact on their access to SLRs than do members of other groups, and it may also be fruitful to study, longitudinally, the emergence of this hypothesized awareness of a lack of contingency between sobriety and SLRs. If SLR availability is not highly contingent on one's behavior, perhaps some RAI adolescents may come to perceive that what they have now is all they will ever have: This disheartening perception may have a number of negative consequences.

Beals et al. argue that other community-level constructs such as trauma exposure and alienation would also be important to consider. We certainly agree that a comprehensive model of AI substance use must consider these factors and others based in AI history, many of which we did mention in Spillane and Smith (2007). We have begun work on including such variables in our existing model. For example, it may be that historical traumas influence current personality functioning among AIs. Perhaps a history of oppression and domination, experienced across generations (Brave Heart & DeBruyn, 1998), leads to heightened levels of traits such as social alienation and hostility. It may well be that these traits predict substance use, thus indicating the influence of historical contextual forces on current behavior. In summary, despite our disagreements with Beals et al., we are happy that our original paper has opened a dialogue among AI researchers and we hope that this dialogue can lead to improved understanding, and ultimately, improved quality of life for AIs.

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