

Comment on “Reexamining Individual Differences in Women’s Rape Avoidance” by Snyder and Fessler (2012)

William F. McKibbin · Todd K. Shackelford

Published online: 21 September 2012
© Springer Science+Business Media, LLC 2012

Snyder and Fessler’s (2012) article, entitled “Reexamining Individual Differences in Women’s Rape Avoidance,” was written in response to an article we published (McKibbin, Shackelford, Miner, Bates, & Liddle, 2011). Snyder and Fessler criticized our work on both theoretical and empirical grounds. In this Letter, we address their criticisms and problems associated with each criticism.

Theoretical Criticisms

We have argued that, in response to the severe physical, psychological, and genetic costs associated with sexual assault and rape, women may possess specialized and domain-specific evolved psychological mechanisms designed to motivate rape avoidance behaviors (McKibbin et al., 2009, 2011). These mechanisms attend to the individual risks and costs associated with a given environment or behavior and appear to be sensitive to individual differences in women. Snyder and Fessler suggested that the operation of “generalized learning” mechanisms provides a more parsimonious explanation for rape avoidance behaviors than our explanation, which relies upon domain-specific mechanisms. For example, they argued that a positive relationship between attractiveness and rape avoidance behavior is explicable through general-purpose learning mechanisms. Specifically, they stated that attractiveness is

likely to be positively correlated to experiencing unwelcome sexual attention and, therefore, more attractive women will learn to be more cautious in this regard, including, presumably, by performing more rape avoidance behaviors.

Snyder and Fessler appear not to appreciate that invoking the operation of general-purpose learning mechanisms requires explanation beyond that required by invoking the operation of domain-specific mechanisms. For example, the problems of unbounded rationality and combinatorial explosion render explanations relying on general-purpose learning mechanisms dubious (for an overview of these and related issues, see Buss, 2012; Tooby & Cosmides, 1992, 2005). In fact, it is unclear whether truly domain-general mechanisms could evolve (Cosmides & Tooby, 2002). Snyder and Fessler must explain how a general-purpose learning mechanism can process and act upon the almost limitless sensory information in the world, including, in this case, unwanted sexual attention. An analogy makes the problem clearer. If one thinks of the brain as a computer, and psychological mechanisms as software, it is difficult to imagine a piece of software that could perform every function one may want to perform with a computer. Instead, computers are effective because they employ specialized programs to perform specific tasks. Snyder and Fessler bear the burden of describing how such a general-purpose mechanism could function as they describe in their article.

We argue it is more parsimonious to conceptualize, for example, unwanted sexual attention, as a proximate explanation—that is, an explanation as to how evolved psychological mechanisms register the level of risk in an environment. One way to do so might be to attend to and process the amount of unwanted sexual attention received in a particular environment. This explanation is more parsimonious than an explanation invoking a general-purpose learning mechanism, which must somehow process not only this information, but also,

W. F. McKibbin (✉)
Department of Psychology, University of Michigan-Flint, 303 East
Kearsley St., 411 Murchie Science Building, Flint, MI 48502-1950,
USA
e-mail: wmckibbi@umflint.edu

T. K. Shackelford
Department of Psychology, Oakland University, Rochester, MI,
USA

by definition, a nearly unlimited amount of other types of information.

In conclusion, the theoretical criticisms offered by Snyder and Fessler do not provide a more parsimonious or compelling explanatory framework. Indeed, the assumptions presented regarding general-purpose learning mechanisms reflect an apparent misunderstanding of basic evolutionary psychological meta-theory (for an overview of these issues, see Tooby & Cosmides, 1992).

Empirical Criticisms

In addition to the theoretical problems plaguing the arguments presented by Snyder and Fessler, there are methodological and empirical problems with their study. The first problem is their choice of dependent variables and how these variables are operationalized. Snyder and Fessler argued that self-reported fear of rape motivates actions to avoid rape. This is almost certainly true, to the point of triviality. We question what useful information this provides. Nonetheless, Snyder and Fessler reported correlations between the Fear of Rape Scale (FORS) and our Rape Avoidance Inventory (RAI), as well as single-item assessments of fear of being sexual assaulted and fear of being sexually harassed. It is unfortunate that Snyder and Fessler reported data on single-item measures. Single-item measures are low in empirical value, as their reliability and validity are more challenging to assess. No assessments of either were presented in Snyder and Fessler's research. Single-item measures may or may not be valid, depending on the domain of information assessed (Bernard, Walsh, & Mills, 2005). Because the validity of these items has not been demonstrated, we question the utility of these measures. In contrast, the multiple-item RAI used in our research has been demonstrated to be reliable and valid (McKibbin et al., 2009, 2011), although we recognize that this new instrument has been used in a limited number of studies to date. Although no measure is perfect, the RAI better captures the domain of rape avoidance than single-item assessments of fear of sexual assault or harassment.

Snyder and Fessler argued that the FORS provides an appropriate method of testing predictions originally tested using the RAI. The FORS is empirically problematic, however. Briefly, responses of *don't know/not applicable* are coded at the midpoint of the response scale (4 on a scale of 1–7). Thus, an individual who recorded all their answers as “unknown” or “not applicable” would receive the same overall score as an individual who scored some FORS scale items quite high and others quite low. We question the results generated from the use of this scale.

The research presented by Snyder and Fessler also has procedural problems. The first problem is related to the sample. Snyder and Fessler used several online methods to recruit a “more

diverse” sample than we recruited for our research. This is a laudable goal and one we suggested in the Discussion section of our article (McKibbin et al., 2011). Snyder and Fessler argued that their sample was more appropriate than our sample. However, the sample studied by Snyder and Fessler was undereducated relative to the general public, was self-selected, and had an especially high level of participant attrition. Although our sample was not without problems (for discussion, see McKibbin et al., 2011), we disagree with Snyder and Fessler's declaration that their sample is more appropriate than our own.

Snyder and Fessler may have generated spurious relationships between some of the variables measured. Specifically, Snyder and Fessler may have introduced confounding priming effects. The researchers asked women 32 questions about their fear of rape, sexual assault, or sexual harassment. These questions appear to have been administered *prior* to asking women about their rape avoidance behaviors, as measured by the RAI. Given that the RAI asks about rape avoidance in a retrospective fashion, the questions about fear of rape may have primed women to think about such issues and caused them to report inaccurately their rape avoidance behaviors. Because there is no evidence of counter-balancing in their research design, it is not possible to assess whether or to what degree some of the results reflect order effects.

Snyder and Fessler tested each of the predictions we tested in our research, using both the RAI and their own measures of fear of rape, sexual assault, and sexual harassment. Several problems are apparent in their analyses. First, Snyder and Fessler generally reported results using only overall RAI scores (with Prediction 4 an exception), whereas we reported results for each prediction using total scores as well as the individual scores for each of the four categories of rape avoidance behaviors. We regret that Snyder and Fessler chose not to report results associated with subcategory scores in most cases, making comparisons between the studies difficult.

Regarding Prediction 1, Snyder and Fessler argued that concern with sexual harassment explains the negative correlation between age and rape avoidance behavior. Again, the sexual harassment item was a single-item assessment of unknown reliability and of unclear validity. In addition, the negative relationship between age and *concern* with sexual harassment does not necessarily mean women experience less *actual* harassment. For example, the relationship might also reflect less personal concern or upset about being sexually harassed. As women age, they are perceived as less attractive by men (Buss, 1989; Shackelford, Schmitt, & Buss, 2005). Perhaps as women age, sexual harassment (an indicator of attraction) is perceived less negatively. Snyder and Fessler's results cannot rule out this alternative explanation. We also note that, when using the RAI, and not the problematic single-item assessments or FORS, Snyder and Fessler reported findings that replicate our own. That is, two subscales of the RAI were correlated with self-perceived attractiveness.

Regarding Prediction 2, Snyder and Fessler found different response patterns in mated women and unmated women. These findings replicated our own. In addition, Snyder and Fessler reported a more nuanced test of relationship status, examining the effect of co-residence along with relationship status. We thank them for following our suggestion to more carefully assess relationship status, mentioned in the Discussion section of our article (McKibbin et al., 2011).

Snyder and Fessler suggested that their findings regarding Prediction 2 may reflect a methodological artifact, due to the nature of some of the RAI items. Briefly, according to Snyder and Fessler, some items reflect behavior in mated women which has been “culturally proscribed” (e.g., “Avoid blind dates”). Similarly, we speculated that these types of behaviors were less likely to be performed by women as they age (McKibbin et al., 2011). This purported methodological artifact may explain the relationship with items of this “culturally proscribed” type (typified in the *Avoid appearing sexually receptive* category of RAI behaviors), but cannot explain why mated women also perform more behaviors in the *Awareness and Preparedness* category of rape avoidance behaviors. Relatedly, Snyder and Fessler again did not report correlations with RAI category scores. In addition, Snyder and Fessler tested this methodological artifact hypothesis by removing a number of the “culturally proscribed” items from the RAI and re-analyzing their data. However, this presumes that mated women never seek extra-pair copulations or otherwise interact with men other than their partner. This is a problematic presumption, given significant evidence to the contrary (e.g., Gangestad, 2006; Gangestad & Thornhill, 1997; Greiling & Buss, 2000).

Regarding Prediction 3, Snyder and Fessler tested our prediction that the number of women’s family members living in close proximity correlates positively with the frequency with which women perform rape avoidance behaviors. There were, however, several problems with Snyder and Fessler’s test of this prediction. First, Snyder and Fessler used co-residence with a family member as the predictor of rape avoidance, fear of rape, and concern with sexual assault, rather than using the number of family members living close by, as we did (guided by Figueredo et al., 2001). Snyder and Fessler may be measuring a different construct altogether. The effects of co-residence are difficult to parse. If, as Snyder and Fessler note, fear drives proximity, this may motivate women who are more fearful to live with those who can best protect them. Yet, in doing so, fear would likely be diminished. Given the unclear nature of these variables, the results of these tests should be interpreted with caution.

Regarding Prediction 4, we thank Snyder and Fessler for following our suggestion (McKibbin et al., 2011) and attempting to collect a more diverse sample, especially with regard to age. As evident in Snyder and Fessler’s results, age may be positively correlated with some categories of rape avoidance behaviors.

For similar reasons mentioned earlier, these may be spurious relationships reflecting changing behavioral patterns in women as they age (e.g., less likely to go to parties, drink, etc.). Yet again, this spuriousness fails to explain the relationship between age and the *Awareness and Preparedness* category of rape avoidance behavior. Snyder and Fessler also noted, as we did (McKibbin et al., 2011), that the RAI may be most applicable to relatively affluent Western populations, given that this was the population that provided the data for the development of the RAI. Snyder and Fessler argued that the RAI, therefore, is of questionable utility. We agree that the RAI in its current form is most useful when applied to relatively affluent, Western samples. But we consider the initial development of the RAI as an important first step only. We encourage researchers attempting to collect data from more diverse samples to consider modifying the RAI to exclude items less relevant to the particular sample. Researchers might also consider developing a similar instrument which assesses behaviors most relevant to the population they are investigating (see McKibbin et al., 2009).

Conclusions

Snyder and Fessler offered several theoretical and empirical criticisms of our research. However, Snyder and Fessler’s invocation of general-purpose learning mechanisms as an explanation for our results and for their own results is more problematic and less parsimonious than the domain-specific mechanisms we proposed (McKibbin et al., 2009, 2011). Furthermore, Snyder and Fessler’s research was plagued by several problems, including possible priming effects, poor operationalization of variables, and failure to report key analyses. We encourage readers to critically examine the research presented by Snyder and Fessler as well as our own research before drawing any conclusions.

References

- Bernard, L. C., Walsh, R. P., & Mills, M. (2005). Ask once, may tell: Comparative validity of single and multiple item measurement of the Big-Five personality factors. *Counseling and Clinical Psychology Journal*, 2, 40–57.
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral & Brain Sciences*, 12, 1–49.
- Buss, D. M. (2012). *Evolutionary psychology: The new science of the mind* (4th ed.). Boston, MA: Allyn & Bacon.
- Cosmides, L., & Tooby, J. (2002). Unraveling the enigma of human intelligence: Evolutionary psychology and the multimodular mind. In R. J. Sternberg & J. C. Kaufman (Eds.), *The evolution of intelligence* (pp. 145–198). Mahwah, NJ: Erlbaum.
- Figueredo, A. J., Corral-Verdugob, V., Frias-Armentab, M., Bacharc, K. J., Whited, J., McNeilla, P. L., et al. (2001). Blood, solidarity, status, and honor: The sexual balance of power and spousal abuse in Sonora, Mexico. *Evolution and Human Behavior*, 22, 195–328.

- Gangestad, S. W. (2006). Evidence for adaptations for female extra-pair mating in humans: Thoughts on current status and future directions. In S. M. Platek & T. K. Shackelford (Eds.), *Female infidelity and paternal uncertainty: Evolutionary perspectives on male anti-cuckoldry tactics* (pp. 37–57). Cambridge, UK: Cambridge University Press.
- Gangestad, S. W., & Thornhill, R. (1997). The evolutionary psychology of extrapair sex: The role of fluctuating asymmetry. *Evolution and Human Behavior*, *18*, 69–88.
- Greiling, H., & Buss, D. M. (2000). Women's sexual strategies: The hidden dimension of extra pair mating. *Personality and Individual Differences*, *28*, 929–963.
- McKibbin, W. F., Shackelford, T. K., Goetz, A. T., Bates, V., Starratt, V. G., & Miner, E. (2009). Development and initial validation of the Rape Avoidance Inventory. *Personality and Individual Differences*, *39*, 336–340.
- McKibbin, W. F., Shackelford, T. K., Miner, E. J., Bates, V. M., & Liddle, J. R. (2011). Individual differences in women's rape avoidance behaviors. *Archives of Sexual Behavior*, *40*, 343–349.
- Shackelford, T. K., Schmitt, D. P., & Buss, D. M. (2005). Universal dimensions of human mate preferences. *Personality and Individual Differences*, *39*, 447–458.
- Snyder, J. K., & Fessler, D. M. T. (2012). Reexamining individual differences in women's rape avoidance behaviors. *Archives of Sexual Behavior*. doi:10.1007/s10508-012-9987-6.
- Tooby, J., & Cosmides, L. (1992). The psychological foundations of culture. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 19–136). New York: Oxford University Press.
- Tooby, J., & Cosmides, L. (2005). Conceptual foundations of evolutionary psychology. In D. M. Buss (Ed.), *The handbook of evolutionary psychology* (pp. 5–67). Hoboken, NJ: Wiley.