

## FEATURE ARTICLE

# When Not Saying NO Does Not Mean Yes: Psychophysiological Factors Involved in Date Rape

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*To understand how a woman who does not want to be a willing sexual partner can at times acquiesce and not fight the date rape predator, the neurobiology of our responses to threat needs to be understood. Under situations of extreme threat, instead of responding just to danger signals with only the options to fight or flee, we also retain in our nervous system a primitive immobilization response that may reflexively be expressed when our body detects life threat. This primitive defense system is shared not only with other mammals, but also with reptiles, such as the turtle, that immobilize as a primary defensive strategy. The brain makes the decision without awareness, and the relative risks of stimuli are interpreted to be safe, dangerous, or life threatening. The polyvagal theory proposed by Stephen Porges may explain why many rape victims do not actively resist. According to the theory, the act of not responding is an immobilization fear response to life threat, which may be wrongly interpreted by the aggressor as a passive acquiescence. The woman's thoughts, intentions, and feelings are irrelevant—her body shuts down in preparation for severe injury and death. This misunderstanding may be exacerbated if judgment is clouded by alcohol. This discussion of the polyvagal theory supports the recently passed California law (Senate Bill 967) that requires the governing boards of California postsecondary institutions (colleges and universities) to adopt procedures and protocols requiring students to obtain “affirmative, unambiguous, and conscious decision by each participant to engage in mutually agreed-upon sexual activity.”*

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*I read about the body immobilizing instead of fighting or fleeing. I am now 69 and when I was 18 I was nearly strangled and then sexually assaulted. Years later I was speaking with my daughter about this incident and she was disbelieving that I did what I did and that I froze. I felt so ashamed and judged. After reading your theory I cannot tell*

*you how excited and vindicated I feel. I am crying right now.*  
(personal communication, September 6, 2013)

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### Not Saying No in Date Rape

What does it take to say “No”? And, what does it take to understand “Yes”? Misinterpreting intentions clearly contributes to date rape. The public discussion emphasizing the role of a verbal confirmation of intent may be based on a misunderstanding of our neurobiology and our physiological reactions to threat. Many women report that they were unable to say No to sexual advances when the partner appeared threatening or was physically restraining their ability to move. At that moment of restraint, they were unable to recruit the resources necessary to unambiguously communicate that they did not want to be intimate. In many cases, as in the quote from the above email, the victim was ashamed of her own paralysis; ashamed that she did not react aggressively to defend herself. This shame plagued her for her entire adult life.

The current focus on consensual agreement, especially on college campuses, is forcing an operational definition of rape with an emphasis on the potential victim expressing a verbal No or at least making an aggressive defense. This focus assumes that the potential victim has the neurobiological resources to articulate her feelings or to defend her body.

It neglects the high probability that the intrusive and aggressive behaviors of the perpetrator will trigger a bodily reaction in which the victim will not be able to express herself either verbally or behaviorally. Thus, this paper provides a neurobiological explanation of why not saying No is far from the equivalent of saying Yes.

This paper supports the recently passed law in California (Senate Bill 967, 2014) that requires governing boards of postsecondary institutions (colleges and universities) to adopt “a policy concerning sexual assault, domestic

violence, dating violence, and stalking.” It requires from each partner “affirmative consent,” which means

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“affirmative, conscious, and voluntary agreement to engage in sexual activity. It is the responsibility of each person involved in the sexual activity to ensure that he or she has the affirmative consent of the other or others to engage in the sexual activity. Lack of protest or resistance does not mean consent, nor does silence mean consent. Affirmative consent must be ongoing throughout a sexual activity and can be revoked at any time. The existence of a dating relationship between the persons involved, or the fact of past sexual relations between them, should never by itself be assumed to be an indicator of consent” (Senate Bill 967, 2014).

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Many men assume that if the woman does not verbally say No, then the sexual activity is consensual and not rape. In these cases, men interpret the absence of response as a passive acceptance and they continue sexual advances. This absence of response may appear to men to be consistent with earlier experiences during which the woman passively accepted or perhaps tolerated a kiss and some physical contact. In cases of fear of injury, the woman may acquiesce to these initial stages of foreplay.

However, our biological responses to threat contradict the assumption that a lack of protest is equivalent to consent. If the context puts the woman in a state of life threat, she may reflexively immobilize and lose an ability to protest and defend. The male may interpret this fear-induced immobilization by the woman as a signal that she is sexually available. Thus, in the date rape scenario, after the initial power struggle, if the woman stops struggling, it may not be a signal to the male that she passively acquiesces to his advances. Obviously, many factors contribute to the interpersonal negotiation to achieve sexual intimacy. In some cases it occurs with malevolent intent—have sex at any cost without any regard for the partner, such as being raped by a total stranger or the use of date rape drugs to make the person unconscious. In other cases the initial negotiations are covert, in which case one partner aggressively advances and continues the advance until resistance occurs. In contrast, positive paths to sexual intimacy involve a shared and reciprocal agenda.

This subtle interactive process is prone to misinterpretation and may trigger adaptive reactions wired into our DNA. These evolutionary responses to threat (embedded in our nervous system) occur without awareness. In addition, the ability to detect threat and to read the signals of others,

both signs of predation and protest, are blunted by alcohol and other drugs.

To understand how a woman who does not want to be a willing sexual partner can at times acquiesce and not fight the date rape predator, the biology of our responses to threat needs to be understood. In this article, we will apply the evolutionary polyvagal theory of Stephen Porges to the situation in which a male initiates sexual activity with a female. The same responses could take place in date situations involving same-sex partners, or involving a female aggressor, but we are describing the more common date rape situation today, involving a male aggressor.

### **The Psychophysiology of Stress**

For most of the 20th century, our understandings of human reactions to threat were guided by a useful, but limited, theoretical perspective of how stress impacted behavior and physiology. Researcher Hans Selye introduced the term “stress” in the 1930s. Selye emphasized the role the adrenal glands played in dealing with challenges. At about the same time, Walter Cannon proposed a complimentary theory that emphasized the role of the sympathetic nervous system as well as the adrenals. Both theories are used to explain the detrimental health effects of stress or fight or flight reactions as disruptions in the autonomic nervous system, the neural system that regulates the organs in our body. These stress theories have migrated into our popular culture and are taught in universities and medical schools.

The model suggests that, when a stressor occurs, our body triggers a stress response commonly conceptualized as either a fight or flight response. This active response requires support from our nervous system through the activation of our sympathetic nervous system and our adrenal glands. This activation increases heart rate, pumps blood to our muscles, and provides the metabolic resources for individuals to perform heroic tasks. This response can sometimes enable people to be unbelievably strong (e.g., a mother lifts a 2,000 pound car to free her child caught underneath). This model is, however, incomplete. It represents only one part of a repertoire of responses that may occur to threat.

Unfortunately, this simplistic one-dimensional stress response model has failed to adequately explain the experiences of many individuals who, rather than mobilize to threat, freeze. Many individuals who freeze subsequently are diagnosed with post-traumatic stress disorder and don’t have symptoms associated with activation of the sympathetic nervous system and adrenal glands.

## Polyvagal Theory

A more inclusive model describing our responses to threat has been proposed by Stephen Porges, a coauthor of this article and Professor of Psychiatry at the University of North Carolina. About 20 years ago, Porges (1995, 2001, 2009) introduced the polyvagal theory. According to Porges, instead of responding just to danger signals with only the options to fight or flee, we also retain in our nervous system a primitive immobilization response that may reflexively be expressed when our body detects life threat. This primitive defense system is shared with reptiles, such as the turtle, that use immobilization as a primary defense system. According to Porges, through a process that he has called *neuroception*, our brain continuously interprets risk in the environment and automatically reacts without conscious awareness to optimize survival through three different pathways. The brain makes the decision without awareness, and the relative risks of stimuli are interpreted to be safe, dangerous, or life threatening. This process is different than perception, which involves a cognitive awareness of the stimuli. Neuroception occurs in areas of the brain that are not participating in our active cognitive evaluation of the environment. Our neuroception of risk triggers bodily reactions that we “feel,” although we may not be aware of the signals that trigger these feelings. Each category of risk triggers a physiological state that promotes and facilitates the behaviors that are usually the most adaptive for our survival. Consistent with evolutionary principles, since our survival is so important, the decision is being made outside the realm of the higher conscious processes that are vulnerable to persuasion.

When the external stimuli signal safety, the brain engages neural processes that support social communication and the establishment and maintenance of social bonds. These neural processes overlap with the neural processes supporting health, growth, and restoration.

When the stimuli signal danger, the brain triggers the classic fight or flight response. The blood flow shifts from the digestive organs to the deep muscles, and heart rate and blood pressure increase. These biological processes mobilize one to yell, scream, fight, or run away.

However, when the stimuli signal life threat, the brain triggers a totally different defense reaction, that of death feigning and physiological shutdown. At the moment of signal we immobilize and our heart rate and blood pressure decrease. This is the embedded reptilian survival response. More specifically, this immobilization response was characteristic of the ancient reptiles from which mammals evolved. When these ancient reptiles were under

life threat, they would immobilize, slow their heart rate, and hold their breath. Given their small brains and limited need for oxygen, they could hold their breath for a couple of hours, thus enabling them to submerge underwater to seek safety. If threat occurred while on land, the immobilization strategy made them more difficult for a predator to detect, since body movements provide the primary cues for predators.

The immobilization defense system evolved in mammals with only slight modifications from the reptilian ancestor. The earliest mammals were very small. Similar to the ancient reptile, immobilization had several adaptive features, including hiding and appearing to be dead (death feigning). Although humans are modern mammals, we retain some of the response patterns of our evolutionary ancestors. Namely, when life is threatened in ways in which resisting would only trigger the predator to attack more, we may automatically immobilize. Thus, immobilization has survival value.

## Polyvagal Theory and Date Rape

The polyvagal theory is derived from our current knowledge of neurophysiology and neuroanatomy, and explains why some women in the situation of a threat of date rape do not resist. The signals reaching the woman’s brain through a process of neuroception automatically trigger immobilization, the life threat response. This response is not conscious; the biology shuts her down and she cannot act or fight, which is the reptilian defense mechanism of survival. Many women experience shame over their failure to resist or fight, yet their immobilization has nothing to do with choices, intentions, or wishes—it is reflexive.

Similarly, the immobilization response may occur across mammalian species when the nervous system evaluates the context as life threatening. In general, the probability of this shutdown immobilization response occurring increases when the individual is either physically restrained or in a confined physical environment. In these contexts, neuroception will frequently automatically trigger immobilization. Often the immobilization will be accompanied with an increase in pain threshold and psychological dissociation. From an evolutionary perspective, if you survive you can thank your body for its intrinsic wisdom.

On the other hand, when judgment is clouded by alcohol, the male may misinterpret the female’s immobility as a passive Yes. Had her neuroception triggered the danger response, which would mobilize action, she most likely would have yelled, punched, or knelt the date rape predator. Although the predator may respond with anger,

he probably would have stopped even in the throes of sexual excitement with his judgment clouded by his alcoholic state. This scenario assumes that the potential date rape predator did not truly want to rape or injure the woman.

When a woman appears to acquiesce because of the triggering of the life-threatening physiological pathways, the potential predator may misinterpret the absence of resistance through his neuroception as if it were safe and he should proceed. The woman's thoughts, intentions, and feelings are irrelevant—her body shut down in preparation for severe injury and death.

### Conclusions

Lessons to learn from the polyvagal theory as applied to possible date rape:

1. If the victim of date rape responded by becoming paralyzed during a rape, she is not at fault. Shame and self-blame are inappropriate. Her immobility was the mammalian species' last resort to survive by shutting down and becoming immobilized in face of overwhelming life-threatening danger.
2. The potential perpetrator should not assume that immobility or the absence of resistance means a passive Yes. It can mean the person is saying No because his threatening behavior has triggered a life-threatening immobilization response. Thus, we recommend that potential perpetrators should only proceed on the ongoing pathway of intimacy when the person being approached gives an affirmative Yes, under a condition without threat.
3. As the California law passed on September 28, 2014 states, "It is the responsibility of each person involved in the sexual activity to ensure that he or she has the affirmative consent of the other or others to engage in the sexual activity. Lack of protest or resistance does not mean consent, nor does silence mean consent. Affirmative consent must be ongoing throughout a sexual

activity and can be revoked at any time" (Senate Bill 967, 2014).

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### References

- California Senate Bill 967. (2014). De León. Student safety: Sexual assault. Approved by Governor September 28, 2014. Retrieved December 27, 2014, from [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201320140SB967](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB967)
- Porges, S. (1995). Orienting in a defensive world: Mammalian modification of our evolutionary heritage: A polyvagal theory. *Psychophysiology*, 32, 301–318.
- Porges, S. (2001). The polyvagal theory: Phylogenetic substrates of a social nervous system. *International Journal of Psychophysiology*, 42(2), 123–146. doi:10.1016/S0167-8760(01)00162-3
- Porges, S. (2009). The polyvagal theory: New insights into adaptive reactions of the autonomic nervous system. *Cleveland Clinic Journal of Medicine*, 76(Suppl. 2), S86–S90. doi:10.3949/ccjm.76.s2.17



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