NEEDS AND STRESS IN FRATERNITY AND SORORITY LIFE: EVIDENCE OF SOCIAL AND BEHAVIORAL DIFFERENCES AMONG SORORITY AND FRATERNITY MEMBERS

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The article provides an evidence-based overview of unique research on social and behavioral differences between self-identified sorority women and fraternity men in their need and stress behaviors as measured by the Birkman assessment. The data allow campus-based professionals to understand how they may approach educational programs differently for fraternity men and sorority women based on their social and behavioral differences. The differences between sorority women and fraternity men demonstrate how these populations may respond differently to educational programming because of the measured behavioral and social differences.

College fraternities and sororities were founded on the shared values of fellowship, leadership, scholarship, and community service. Fraternities and sororities have grown to be among the largest values-based organizations on campuses with value statements that complement institutional academic missions (North-American Interfraternity Conference, 2011; National Panhellenic Conference, 2016). Nonetheless, according to a report of the North-American Interfraternity Conference (NIC), higher-risk behaviors have played a significant role in serving to unravel the fabric of many fraternities and sororities nationwide.

Education targeting the reduction of higher-risk behaviors such as alcohol abuse, drugs, hazing, and sexual misconduct is available to college students, including those in fraternities and sororities. However, little of that education considers how fraternity and sorority members may differ from one another in their view of and response to education. Likewise, education does not necessarily pay heed to individual mindset or idiosyncrasies when such information is imparted.

This study explores how those who identify as fraternity and sorority members may differ from one another based upon responses to a personality assessment inventory. Specifically, the study explores how fraternity and sorority members differ from one another based on need and stress conditions and considers the possible resulting behaviors of these groups. Taking a sample from fraternity and sorority members across the United States on 371 campuses, both small and large, as well as from different NIC and National Panhellenic Conference (NPC) organizations, it employs an adapted difference in means test for two groups. The findings suggest that there are baseline differences across the two groups that may result in different behaviors. Our study adds to the research literature on fraternity and sorority life by examining how under conditions of need and stress, programming might be adapted to meet the differential needs of each group.

Literature Review

National fraternity and sorority leaders promote the notion that fraternities and sororities offer members fellowship, leadership, scholarship, and community service opportunities. It is this underlying ethos that has led to them be considered the largest values-based organizations on American college and university campuses (NIC, 2011). The NPC (2016) states that sororities exist because they "offer a good, democratic social experience, provide lifelong value, create, through their

ideals, an ever-widening circle of service beyond membership, develop an individual's potential through leadership opportunities and group efforts, and fill the need of belonging" (p. 10).

Research related to fraternity and sorority membership indicates differences between fraternity and sorority and non-fraternity and non-sorority students in terms of campus engagement and learning outcomes (Astin, 1977, 1993; Baier & Whipple, 1990; Pascarella & Terenzini, 1991; Pike & Askew, 1990; Pike, 2003; Thorson, Powell, Sarmany-Schuller & Hampes, 1997). Moreover, research has shown that students' predisposition, personality traits, learning styles, and intrinsic motivation are also related to academic achievement and learning (Clark & Shroth, 2010; Komarrajua, Karau, & Schmeck, 2009; Komarrajua, Karau, & Schmeck, Avdic, 2011). Since the inventory employed here seeks to capture many of these traits, in addition to sorority and fraternity membership, it could potentially allow practitioners and policymakers to respond to students and stress behaviors. Relatedly, student engagement on campuses has been shown to matter for student success (Kahu & Nelson, 2018; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Quaye & Harper, 2014) As noted previously, members of Greek Life often seek out these opportunities to have a more fulfilling college experience.

Taking this research into account, it would be reasonable to expect higher, not lower, levels of learning and development for fraternity and sorority members (Winston & Saunders, 1987). While these claims have been studied, alcohol abuse and other higher-risk behaviors cast a shadow over the fraternity and sorority-life movement (Bennett, 2014; Flanagan, 2014; North, 2015; Reilly, 2016). Discovering methods to deal with higher-risk actions of fraternity and sorority members and other college students is desperately needed, especially with regard to the often differential contexts facing those who are members of a fraternity or sorority. Besides reducing institutional liability, higher education leaders have a vested interest in a well-functioning, viable fraternal community. "A thriving fraternity and sorority community can enhance student learning and leadership, build strong ties between the institution and its future alumni, and develop well-rounded students who value community and citizenship" (Franklin Square Group, 2003, p. 4).

There is a clear need to address areas of concern while improving the operationalization of fraternity and sorority-life's stated mission. Evaluative prevention program research concerning substance abuse and other high-risk behavior among fraternity and sorority members is limited (NIC, 2006); even though, during college fraternity and sorority membership is associated with higher levels of alcohol consumption and related problems (Cashin, Presley, & Meilmen, 1998; Sher, Bartholow, & Nanda, 2001). In many cases, campus professionals are engaged in treating high-risk behaviors and their symptoms, but the research literature suggests that the underlying causes related to such behavior remain unexplored (Biddix, Matney, Norman, & Martin, 2014). Still, stress and anxiety have emerged as problems for fraternity and sorority leaders (Simo, 2011); this may contribute to behaviors including higher alcohol consumption and other negative consequences (Vohs, 2008).

There have been calls for campuses to implement a public health approach based on environmental management to prevent alcohol abuse and other related higher-risk behavior (DeJong & Saltz, 2007). The elements of environmental design and management appear to affect human behavior concerning health, physical fitness choices, social connectedness, and resource availability (Srinivasan, O'Fallon, & Dearry, 2003). This approach is powerful but also must be accompanied by student buy in (Baxter Magolda, 2001). Moreover, great variability exists among campus fraternity and sorority populations and among chapters which complicates a universal program design (Fairlie,

DeJong, Stevenson, Lavigne, & Wood, 2010; Larimer, Irvine, Kilmer, & Marlatt, 1997). The assessment tool used for this study, The Birkman Method, addresses much of this variability by dealing with undergraduate members at the chapter level (Birkman Fink & Capparell, 2013). Specifically, the Birkman assessment (Birkman Fink et al., 2013) identifies stress behaviors and suggests individual mitigation techniques that influence group behavior.

The Birkman Method is a personality, social perception, and occupational interest assessment consisting of scales measuring a person's interests, effective behaviors, interpersonal, and environmental expectations as well as less effective behaviors (Birkman Fink et al., 2013). It is the only personality assessment tool that measures underlying individual needs and the resulting stress if needs are not met. The Birkman assessment has been primarily used in the corporate sector with an exception of being in higher education through some MBA programs with Emory University and the University of South Carolina, as examples (The Birkman Method, 2016).

The construction and comparative analysis of the Birkman assessment is designed to provide insight into what specifically drives a person's behavior, with the goal of creating greater choice and more self-responsibility. It attempts to measure social behaviors, underlying expectations of actions and potential stress responses to unmet expectations and organizational strengths. Scale development and maintenance has been empirically supported by both reliability and validity studies including exploratory and confirmatory factor analyses, item response theory (IRT) and classical test theory (CTT). Scales have test-retest reliabilities averaging .85 and coefficient alphas averaging .80. Face, convergent and divergent construct, and criterion-related validities have been established for The Birkman Method (2016). The Birkman Method has been further studied in educational and psychological research (Wadlington, Elizondo & Wadlington, 2012; Wadlington & Wadlington, 2012; Huang et al., 2016; Ott-Holland, Huang, Ryan, Elizondo, & Wadlington, 2013; Ott-Holland, Huang, Ryan, Elizondo, & Wadlington, 2014); and hence, provides a useful and novel tool for examining fraternity and sorority populations. This study is unique in that undergraduate students, in particular fraternity and sorority members, were only recently exposed to this assessment tool.

The Study

This study's sample consists of 2,378 fraternity and sorority members at 371 colleges and universities, all of whom participated in programs targeting culture change within their chapters or within the fraternal community. The culture change program is designed for college students to assist students in understanding how to achieve culture change by understanding individual behaviors and how individual behavior shapes organizational culture. However, the goal of this study is not to evaluate the effectiveness of the culture change component of the program, but rather to examine baseline behavioral differences among fraternity and sorority members whose chapters have chosen to participate. Hence, The Birkman Method is used to provide a framework to discuss individual behaviors. The framework provides individual results through descriptors of:

Interests – an individual's interests;

Usual Behavior – an individual's strengths or good day behavior;

Needs – what an individual needs to achieve Usual Behavior;

Stress Behavior – the resulting behavior when Needs are not met. (The Birkman Method, 2016)

In the case of fraternity or sorority students, for example, a student who normally is dependable and trustworthy may exhibit distinct behaviors when confronted with a stressful situation. This is indicative of the student moving

into Stress Behavior or Condition because Needs were not met. Previous studies have not considered how the behavior of fraternity and sorority membership may change when under stress nor has it taken into account the way in which individuals best (or need to) receive information and education for optimal learning. Using the Birkman assessment, we can consider this through determination of Need and Stress behaviors before participation in a culture change program.

The scores for Usual Behavior, Needs, and Stress Behaviors are compiled through scores from 11 relational *components* (Birkman Fink et al., 2013). Components are behavioral patterns that explain different aspects of personality. Those 11 components include:

Self Consciousness – Use of sensitivity when communicating with others;

Social Energy – Sociability, approachability, and preference for group and team;

Insistence – Approach to details, structure, follow-through, and routine;

Assertiveness – Tendency to speak up and express opinions openly and forcefully;

Incentives – Drive for personal rewards or preference to share in group rewards;

Physical Energy – Preferred pace for action and physical express of energy;

Emotional Energy – Openness and comfort with expressing emotion;

Thought – Decision making process and concern with consequences for making the right;

Freedom – Desire for personal independence;

Restlessness – Preference to focus attention or change focus and seek varied activities; and,

Challenge – how one applies self-imposed demands. (The Birkman Method, 2016)

Each of these behavioral components is discussed below in greater detail. These specific behaviors are further defined as (Birkman Fink et al., 2013):

Self Consciousness

The *Self Consciousness* component measures a construct of shyness and self-consciousness. Individuals with a high Usual *Self Consciousness* score self-identify as being self-conscious or self-monitoring. Self-conscious people put energy into processing how others perceive them. This makes them much more intentional about what they say and how they say it, especially when communicating one-on-one. Individuals with high *Self Consciousness* know and understand this about themselves.

Social Energy

The *Social Energy* component measures how much energy a person invests in being sociable. People with high scores display a lot of *Social Energy*, while people with low scores use their *Social Energy* more sparingly. When considering Needs, it explains how an individual recharge him or herself, by being around people or having time alone.

Insistence

This construct relates to an individual's preference for systems and procedures. A person with a high *Insistence* score prefers orderly and calm environment with strong systems in place. Conversely a lower score may signify lack of a specific system. This does not mean a person with low *Insistence* scores lacks organizational skills; rather, the individual is more comfortable with flexible and fluid systems of rules and procedures.

Assertiveness

This construct addresses the approach to directing and controlling or persuading others in verbal exchanges. High scores reflect persuasive, competitive, forceful behavior, a preference for strong give and take about issues and a tendency to become argumentative and domineering when stressed by perceived lack of engagement (or listening) by others. The individual responds forcefully if he or she feels others are trying

to "win the argument." Low scores reflect agreeable, easy going, low-key behavior, a preference for nonaggressive interactions about ideas and a tendency to appear to give in or disengage when stressed by perceived aggression or argumentativeness from others.

Incentives

This construct includes strong drive for personal advancement (over advancement of the group), cautiousness about giving trust, interest in money (as incentive), and their polar opposites. This construct addresses the approach to idealism and team versus individual approaches to winning competitions and incentives. High scores reflect competitive, opportunity-minded and money-conscious behaviors, a preference for careful establishment of trust in relationships with personalized incentive and a tendency to become overly pessimistic, distrusting, and "win-at-all-costs" oriented when stressed by perceptions that others may take advantage or win rewards coveted by the individual. Low scores reflect team-minded, idealistic behavior, a preference for relationships in which trust is high and a tendency to appear naïve and excessively self-sacrificing under the stress of perceiving others as not being trustworthy or perceptions that self-interest (especially monetary self-interest) will control a relationship or interaction.

Physical Energy

The *Physical Energy* score measures physical participation. A person with high *Physical Energy* scores needs an environment that provides physical movement and activity while a person with low *Physical Energy* scores is more accepting of sitting quietly for prolonged periods of time. Individuals with low *Physical Energy* are still active, but this activity will likely be seen in the mind or through emotions. *Physical Energy* speaks to preferred pace for physical activity.

Emotional Energy

This construct involves emotional expressiveness. *Emotional Energy* addresses comfort with emotional expression and involvement of feelings in thinking and attitude. High scores reflect emotionally expressive, emotionally creative behaviors, a preference for open expression of emotions and open involvement with emotional issues and a tendency to appear overly emotional when stressed by a perceived lack of attention to

Table 3
Demographics of Valid and Invalid Respondents

Demographic	Valid respondents		Invalid respondents		
	n	%	n	%	Chi Square
Ethnicity					0.03
White	331	78.62%	90	21.38%	
Students of Color	113	77.93%	32	22.07%	
Living situation					1.74
Live-in	132	81.99%	29	18.01%	
Live-out	317	76.94%	95	23.05%	
Class academic standing					5.61**
Freshmen & Sophomores	294	75.77%	94	24.23%	
Juniors & Seniors	166	84.26%	31	15.74%	

*$p < .10$, **$p < .05$, ***$p < .01$

emotions or excessive demands for pragmatism and urgency of action. Low scores reflect unemotional, optimistic behavior, a preference for practical tasks and unemotional relationships and a tendency to be unfeeling or to avoid emotional issues when stressed by encounters with emotional behavior or issues.

Thought

The *Thought* construct involves cautiousness toward decision making, concern for making the right decision the first time and worry over consequences and their polar opposites. The *Thought* construct addresses approach to deciding and action versus thought orientation. High scores reflect cautious decision-making, consideration of many options, a preference for time to think, need for an abundance of information to evaluate options and a tendency to appear indecisive and anxious when stressed by a perceived pressure to decide (or act) or inadequate information. Low scores reflect quick decision making, ease of changing decisions, a preference for action over cautious consideration of many options and a tendency to appear rash or impulsive when stressed by perceived lack of action by others or complicated risk factors and options.

Freedom

The *Freedom* construct is based on conventional or unconventional answering patterns across The Birkman instrument. The scale involves content from several of the other constructs with emphasis on agreeing or disagreeing with conventional responses to the content of these constructs. The construct addresses independence of thought and personal independence and also shares meaning with the *Incentives* construct. High scores reflect independence of thought and action, taking initiative, a preference for tasks that allow freedom from control and a tendency to appear rebellious and self-protective when stressed by a perceived control by others or restrictive policy and procedure. Low scores reflect group oriented or conventional thought and action, a preference for tasks and involvement based on precedence and agreement and a tendency to appear overly constrained by precedent or group pressure when stressed by a perceived lack of control or idiosyncratic approaches by others.

Restlessness

The *Restlessness* construct is based on restlessness and excitability. It involves changeable interests, quickly changing focus, working fast and their polar opposites. *Restlessness* addresses dealing with change of current focus or change of attention but not resistance to or comfort with structural or organizational change. High scores reflect quickly shifting attention, attending to intrusions easily, a preference for many quick, attention shifting tasks and a tendency to appear excessively restless and unfocused when stressed by tasks perceived as boring or that demand focus on one goal for long periods of time. Low scores reflect patient attention to task, resistance to distraction, a preference for tasks that allow protection from interruption and a tendency to appear resistant to demands for shifts of attention or demands for quick shifts of goals.

Challenge

The *Challenge* construct addresses an individual's need to present oneself in a positive light to others. A person with a high *Challenge* score experiences more difficulty presenting self to others while a person with a low *Challenge* score appears calm and comfortable with others putting those around them at ease as well.

Data & Methods

This study employs Birkman score data on 1,738 fraternity members and 640 sorority members for a total sample of 2,378 on the 11 relational component measures presented previously at 371 colleges and universities across the United States. All measures are scored on an index from 1-99 in which 1 is equal to the least

likely outcome and 99 to most likely outcome. Moreover, the index measures indicate that as participants move from 1 to 99 they exhibit behaviors related to each measure at a more significant level – behaviors with a score of 1 are equally as intense as scores of 99; however, the behaviors are opposites. Data were sampled from a population of fraternity and sorority members at colleges and universities throughout the United States of varying size, both public and private institutions. Additionally, data were coded in a binary fashion where "sorority membership" was set to unity and "fraternity membership" to 0. To reiterate, the measures seek to capture social and behavioral aspects before being exposed to any intervention, hence the focus on baseline differences in the presentation of the results.

The analysis first examines the mean difference for "Need" conditions followed by "Stress" conditions using a two-sided t-test that assumes no directionality of the mean difference and employs the following general equation with one caveat (Bowen, 2016, p. 266).

(1)

$$t = \frac{\bar{X}_1}{\hat{s}(\bar{x}_1} - \frac{\bar{X}_2}{\bar{x}_2)}$$

Because the sample sizes for fraternity and sorority members are not equal, we have employed the assumption of unequal variances or, $\sigma_F^2 \neq \sigma_S^2$; and hence, we have imposed Satterthwaite's approximated degrees of freedom. This equation (Bowen, 2016, p. 267), which calculates the estimated standard error of the mean differences under conditions in which pooled variance is an inappropriate assumption takes the following general form such that:

(2)

$$Satterthawaite's\ Approximated\ df = \frac{(w_1 + w_2)^2}{\frac{w_1^2}{n_1} + \frac{w_2^2}{n_2}}$$

and where

(3)

$$w_1 = \frac{s_1^2}{n_1}$$

as well as

(4)

$$w_2 = \frac{s_2^2}{n_2}$$

By adjusting the degrees of freedom in this manner the test for statistical significance becomes more conservative and requires a higher level of evidence before rejecting the null hypothesis (Bowen, 2016). Hence, we are confident that the presented results are more robust based on this modification; though, we are also cognizant that these initial findings represent correlation, rather than causal, results.

Findings

Based on the results presented in Tables 1 and 2, a few findings warrant discussion. First under "Need" conditions, seven of the 11 measures returned results showing statistically significant mean differences at the .05 level. Please note that because of the coding process, all results are interpreted with sorority membership as the reference group.

First, the mean *Self Consciousness* score was statistically significantly higher for sorority members than for fraternity members by 5.57 points. Next, *Assertiveness* scores were just over 7 points lower for sorority members as compared to the fraternity counterparts. *Emotional Energy*, and *Thought* scores were each nearly 4 points higher for sorority members, 3.73 and 3.96 respectively, than fraternity members while *Restlessness* scores were nearly 7 points higher at 6.94. Of the last two statistically significant measures both *Freedom* and *Challenge* mean scores were lower for sorority members by 3.49 and 3.51 points, respectively. Each of these results holds at the .05 level and often at the .001 level as well. For the measures *Social Energy, Insistence, Physical Energy,* and *Incentives* sorority and fraternity members shared no statistically significant mean differences under "Need" conditions.

Table 1

Baseline Statistical Results for t-tests under "Need" Conditions[1]

	Mean Scores-Need	Mean Difference	t-statistic	P-Value
	Self Consciousness			
Fraternity	51.06			
Sorority	56.63	-5.57***	-4.169	0
	Social Energy			
Fraternity	55.86			
Sorority	57.61	1.32	-1.331	0.183
	Insistence			
Fraternity	44.08			
Sorority	42.28	1.8	1.407	0.16
	Assertiveness			
Fraternity	75.81			
Sorority	68.74	7.06***	6.321	0
	Incentives			
Fraternity	75.11			
Sorority	74.15	0.97	1	0.317
	Physical Energy			
Fraternity	45.62			
Sorority	46.12	-0.499	-0.416	0.678
	Emotional Energy			
Fraternity	78.34			
Sorority	82.06	-3.73***	-4.216	0
	Thought			
Fraternity	77.26			
Sorority	81.22	-3.96***	-4.134	0
	Freedom			
Fraternity	80.75			
Sorority	77.26	3.49**	3.456	0.001
	Restlessness			
Fraternity	74.86			
Sorority	81.8	-6.94***	-7.34	0
	Challenge			
Fraternity	49.75			
Sorority	46.24	3.51**	2.59	0.01

****p-value<.001; ** p-value<.01; *p-value<.05*

[1]Readers should note that the *Challenge* score is the same across Need and Stress Conditions because this score is unique from the others in that a separate score is not figured for each condition. The reason a separate score is not figured is because *Challenge* is unique among the other components in that it is an "attitude" which does not change based on condition as opposed to a "behavior" which can change based on Need and Stress. This accounts for the same results across conditions and the reason for non-reporting of related results.

Next, we turn to the findings presented in Table 2 under "Stress" conditions. In this instance, eight of 11 measures returned statistically significant results; one more than under the "Need" conditions. Under "Stress" conditions there is also a pattern of higher overall scores for both groups, though in most instances the mean difference became smaller. Of the statistically significant differences across means, three behavioral components: *Self Consciousness* and *Freedom* as well as the newly significant *Social Energy* measure, returned results that showed

Table 2

Baseline Statistical Results for t-tests under "Stress" Conditions

	Mean Scores-Need	Mean Difference	t-statistic	P-Value
	Self Consciousness			
Fraternity	51.06			
Sorority	56.63	-5.57***	-4.169	0
	Social Energy			
Fraternity	55.86			
Sorority	57.61	1.32	-1.331	0.183
	Insistence			
Fraternity	44.08			
Sorority	42.28	1.8	1.407	0.16
	Assertiveness			
Fraternity	75.81			
Sorority	68.74	7.06***	6.321	0
	Incentives			
Fraternity	75.11			
Sorority	74.15	0.97	1	0.317
	Physical Energy			
Fraternity	45.62			
Sorority	46.12	-0.499	-0.416	0.678
	Emotional Energy			
Fraternity	78.34			
Sorority	82.06	-3.73***	-4.216	0
	Thought			
Fraternity	77.26			
Sorority	81.22	-3.96***	-4.134	0
	Freedom			
Fraternity	80.75			
Sorority	77.26	3.49**	3.456	0.001
	Restlessness			
Fraternity	74.86			
Sorority	81.8	-6.94***	-7.34	0
	Challenge			
Fraternity	49.75			
Sorority	46.24	3.51**	2.59	0.01

****p-value<.001; ** p-value<.01; *p-value<.05*

a larger difference in the means under "Stress" conditions, while four showed decreases in the mean differences across sorority and fraternity members' scores including *Assertiveness, Self Consciousness, Thought,* and *Restlessness.* Again, of the statistically significant scores, only Social Energy was new in the second set of estimations and in fact, was the only one that exhibited lower mean scores overall.

The mean difference in the *Self Consciousness* score rose to 6.72 from 5.57, or a statistically significantly higher score difference for sorority members as compared to fraternity members of 1.15 points again. This suggests that, generally speaking, sorority members from this sample have higher average mean scores on this measure as compared to fraternity members. Additionally, the results show that as compared to "Need" conditions, not only did the mean difference rise, but so too did the index scores. For fraternity members it was higher by 6.43 points and for sorority members by 7.57 points. The scores on *Freedom* shared a similar pattern. To illustrate, mean *Freedom* scores were 1.75 points higher for fraternity members and 1.72 points higher for sorority members. The average mean difference in these scores is larger under "Stress" conditions, but only marginally so by .02 points with sorority members exhibiting a 3.51 point, up from a 3.49 point, lower mean score than fraternity members on this measure. Finally, *Social Energy* returned lower mean scores under these conditions, but since the scores were not statistically significant under "Need" conditions. It is not appropriate to compare these scores to those in Table 1. In any event, the direction and statistical significance of the other relationships holds at the same level and in the same direction as under "Need" conditions.

Next, *Assertiveness, Emotional Energy, Thought,* and *Restlessness* scores shared similar patterns to one another. Again, each of these findings holds at the .05 level and as before, often at the .001 level. For Assertiveness the mean difference between fraternity and sorority members fell from 7.06 points in Table 1, to 5.86 points in Table 2 or a lower mean score difference of 1.2 points under "Stress" conditions with sorority members having a lower average score. *Emotional Energy, Thought,* and *Restlessness* all dropped to 2.64, 3.19, and 4.29 from 3.73, 3.96, and 6.94 respectively. This suggests that on each of these measures sorority members, as compared to fraternity members in the sample, had higher mean scores on each of these measures. However, it is necessary once more to note that mean differences became smaller for *Emotional Energy, Thought,* and *Restlessness* by 1.09, .77, and 2.65 points respectively, while overall mean scores rose. As before, for the measures *Insistence, Physical Energy,* and *Incentives,* fraternity and sorority members shared no statistically significant mean differences under "Stress" conditions when compared to "Need" conditions.

Implications & Discussion

Statistically significant "Stress" scores tend to be higher on the index than those under "Need" except for *Social Energy* in Table 2 which is lower than those scores reported in Table 1. As is apparent from Pike and Killian (2001), Pike (2003) and Strange and Banning (1986), fraternities and sororities play a significant role in socialization, and this may have an impact on the compacting of mean differences. In other words, past research reveals that sorority and fraternity members are different than those not in sororities and fraternities in their socialization, and this may affect how they appear to behave more alike or less differently under "stress."

Baseline motivational and behavioral differences as indicated by the Birkman assessment components described earlier, under the Need construct, reveal statistically significant behavioral differences (see Table 1):

> *Self Consciousness* – Sorority members experience a higher need for diplomacy when dealing with each other than fraternity members who are more likely to

exhibit behaviors of frankness and candor.

Emotional Energy – Sorority members experience greater comfort with feelings and expressing emotion while fraternity members are more likely to not reveal feelings.

Thought – Sorority members are more likely than fraternity members to be deliberate in decision making while fraternity members are more likely to make impulsive decisions.

Restlessness – Sorority members are more comfortable with many things happening simultaneously and enjoy this pace while fraternity members prefer predictability.

Freedom – Fraternity members have a greater need for independence from one another while sorority members are more likely to conform to group norms.

Challenge – Fraternity members have less need for external affirmation, praise and recognition than sorority members.

Assertiveness – Fraternity members are more likely to lead, and respond to being led, in a more authoritarian manner than sorority members who prefer a more egalitarian approach.

Likewise, under the Stress construct, meaning individual needs are not met and stress behavior occurs, baseline behavioral differences as indicated by the Birkman assessment appear as statistically significant between fraternity and sorority members (see Table 2). However, it should be noted that the level of significance for Stress behaviors is not as high as the level of significance under the Need construct, but under both results statistical significance is at least the .05 level:

Self Consciousness – Sorority members are more easily embarrassed, can become evasive and overly sensitive to real or perceived criticism than fraternity members.

Freedom – Sorority members are more likely to conform to group norms and become overly constrained by what has worked in the past.

Social Energy – Sorority members are more likely than fraternity members to be dependent on group approval.

Restlessness – Fraternity members are more likely than sorority members to disregard external affirmation during stressful periods.

Assertiveness – Sorority members are more likely than fraternity members to avoid open disagreement.

Emotional Energy – Fraternity members are more likely than sorority members to become concrete and detached in times of stress and not display emotion.

Thought – Fraternity members are more likely than sorority members to become impulsive and rash in decision making.

Restlessness – Fraternity members are more likely than sorority members to resist change and adjust to new demands.

With the idea of smaller mean differences in mind, one might conclude that fraternity and sorority members behave *more* like one another *because* they are in a fraternity or sorority (Pike, 2000). Through socialization, it may be the case that these groups are more prone to behave like one another because they are fraternity and sorority members (Astin & Antonio, 2012; Kuh, Vesper, Conolly, & Pace, 1997; Pascarella & Terenzini, 1991). Or, there may be something about students who are pre-disposed to joining fraternity and sorority organizations that results in them exhibiting certain behaviors. Again, we must highlight that our study provides only initial, but nonetheless, useful evidence that developing a deeper understanding of differences between fraternity and sorority members and non-affiliated students may provide insights into the behaviors in which they engage.

It should be noted that the Acceptance measure only becomes statistically significant under "Stress" conditions. Could this mean disengagement with groups or withdrawal?

What does this mean for practice and future research? Why do the mean scores for both groups return not only a statistically significant difference? Why are they lower than under "Need" conditions? Moreover, mean differences and direction maintain the same direction of difference under both conditions providing some evidence that on at least seven to eight measures, sorority and fraternity members in our sample share some baseline behavioral differences under both conditions as measured here.

An additional avenue worthy of exploration is how fraternity and sorority members may differ from the general population. For example, looking only at fraternity members, if we measure scores of fraternity members versus all who have taken the Birkman assessment (societal norm), we find that fraternity members vary greatly from the societal norm (see Table 3) (Birkman, 2016). To help illustrate, one simply need consider the following:

Table 3

Mean Scores for "Usual," "Need" and "Stress" – Birkman Social Norm and Treatment Sample

	Birkman Norm			Normal		
	Usual	**Need**	**Stress**	**Usual**	**Need**	**Stress**
Self-Consciousness	23	54	54	24.94361	51.06214	57.48792
Social Energy	77	55	55	78.05984	55.85616	48.49079
Insistence	70	53	53	72.57595	44.07883	39.01784
Assertiveness	51	55	55	71.14327	75.80552	79.57537
Incentives	20	55	55	40.90219	75.11335	76.52762
Physical Energy	80	54	54	70.88608	45.62313	39.98677
Challenge	50	50	50	49.74856	49.74856	49.74856
Emotional Energy	39	66	66	60.95972	78.33659	80.50403
Restlessness	55	57	57	68.09609	74.86018	79.64557
Freedom	36	55	55	54.03797	80.75489	82.49597
Thought	38	57	57	58.40334	77.25777	81.02071

Emotional Energy – Fraternity members have a higher need to share feelings and demonstrate higher stress if unable to express feelings.

Restlessness – Fraternity members have a higher need for novelty and variety in activities and can become unfocused and restless when under stress.

Thought – Fraternity members have greater need for time when making complex decisions and can become indecisive when pressured.

Assertiveness – Fraternity members demonstrate a greater need to debate, and can become argumentative and controlling when under stress.

Freedom – Fraternity members have a greater need for self-expression and may resist ideas from others without thinking when under stress.

While fraternity and sorority members may differ under these same parameters, the differences may not be as significant as the differences between fraternity members and the societal norm or sorority membership and the societal norm. With that said, this study does not address a way to isolate differences – or segment out other causal relationships - between the societal norm and fraternity or sorority members, index scores. Still, we suggest that these findings indicate a need to delve more deeply into this topic. This will be further discussed in limitations of the study. As noted earlier, the Birkman Method, is a personality, social perception, and occupational interest

assessment that seeks to measure a person's interests, effective behaviors, interpersonal and environmental expectations in addition to less effective behaviors. At the time of this writing this appears to be the only personality assessment tool that measures underlying individual needs and the concomitant stress when these needs are not met. With regard to policy, relying upon such an inventory to guide policy decisions around interactions with students and practitioners in a way that considers the levels of stress resulting from unmet needs might provide a mechanism for better customizing policy responses to less desirable behavior and even to employing policy that aims to enhance campus features to meet student needs more readily.

Turning to practice, it is possible that the Birkman assessment, when used as a tool for understanding the underlying needs and stresses of different groups, could provide a new implement in the toolkit practitioners use to respond to fraternity and sorority members' needs. In other words, using the general scores resulting from the inventory could offer direction to those charged with working with these populations and responding to their differential needs.

Finally, we argue that this tool could offer a novel approach for researching looking to better understand student engagement, personalities, needs, and stresses, and their effects on academic success. Indeed, as noted in our literature review, these factors are some of the most salient for student success so introducing a new inventory that seek to more deeply understand the student perspective will likely provide fruitful lines of research in future.

Limitations & Future Research

Care should be taken not to overgeneralize these results. This study was based on the Birkman assessment data of fraternity and sorority members attending 371 colleges and universities in the United States. Although the results for fraternity and sorority members from these colleges and universities are more likely to be generalizable to other institutions than the results of a single institution study, the 371 institutions included in the current research may not be typical of all four-year colleges and universities.

Given the students are not divided into class years or age for the purpose of this study, one does not know how results may differ over the course of a student's college career. Only a longitudinal design could provide a complete description of outcomes that demonstrate differences, if any.

While we know there are statistically significant differences between fraternity and sorority members, we do not know how these differ from the general population or societal norms. While sorority members may, for example, be more likely to conform to group norms than fraternity members, we do not know how either group compares to the larger population. This provides an additional avenue for future research.

Given that statistically significant "Stress" scores tend to be higher on the index than those under "Need" (except for *Social Energy* in Table 2, which is lower than those scores reported in Table 1), we know that fraternity and sorority members are more likely to be alike than different when under stress. This provides a future avenue for research to better understand why the difference lessens between fraternity and sorority members when under stress. Likewise, a future avenue for research is of fraternity and sorority members versus those students not affiliated with fraternities and sororities. Do these same differences hold among fraternity and sorority members and non-affiliated students or is there something significant happening within the fraternity and sorority population?

Given the *Social Energy* measure only becomes statistically significant under "Stress" conditions, additional avenues of research may explore why this is the case. Are fraternity

and sorority members more likely to not seek external affirmation when under stress? How do fraternity and sorority members differ from students not affiliated with fraternities and sororities? Could this mean disengagement with groups or withdrawal? What does this mean for practice and future research? Why do the mean scores for both groups return not only a statistically significant difference, but why are they lower than under "Need" conditions?

From this study we know that, for example, fraternity and sorority members respond differently to authority figures and that sorority members are more likely than fraternity members to conform to group pressure; furthermore, that behavior may differ even more so when under stress. Many campus-based professionals have *known* this intuitively based on their day-to-day work. Much educational programming for college students is based on a one-size-fits-all model. This study suggests that such education will only reach a segment of the population as it does not take into account the differing ways students may respond to education and advising. This also demonstrates that campus-based professionals can benefit from personality assessment when working with both fraternity and sorority members, and college students more broadly, to better understand barriers which may exist when working with students, how those barriers may change when students' needs are not met or students are under stress. It also suggests that it is possible to approach concerns with strategies that will better reach students and prevent higher-risk behaviors. If the goal is to affect positive individual growth and organizational change, this study suggests that doing so without knowing where barriers exist may limit educators in their ability to affect change.

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