



Are Hazing Rituals Fungible? Testing the Cognitive Foundations of Costly Ritual Construction

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Costly rituals may have evolutionary significance in explaining aspects of human cooperation. However, it is unclear how humans reason about creating “costly” rituals at a cognitive level. Using the phenomenon of hazing (arbitrarily costly induction processes), we present the first cognitive model of the construction and implementation of costly rituals: Fungible Dysphoria. Fungible Dysphoria proposes that hazers primarily use internal estimations of anticipated discomfort as cross-domain proxies for “cost” and then combine these estimations in a roughly additive manner to build costly ritual processes. Across two vignette studies with real-world fraternities, we find some evidence consistent with this model, but we also observe heterogeneous responses that may suggest important interactions between micro- and macro-level intuitions about hazing inductions. Our discussion focuses on refining Fungible Dysphoria as a model and increasing the precision with which we can theorize about hazing.


Public Significance Statement

In diverse societies around the world, human groups have created painful or uncomfortable initiation rituals for newcomers. Our article is the first to formally propose how group members reason about the construction of these rituals. To do so, we test a psychological model involving a potentially unconscious decision-making process designed to explain real-world patterns in dysphoric initiation practices.

Keywords: costly rituals, hazing, initiations, fraternities

“Hazing” is a term used to describe newcomer induction practices that appear both arbitrary and aversive (for a formal definition, see Defining Hazing section). Across organizations and cultures, hazing has taken myriad forms, including beatings, scarification, sleep deprivation,

intoxication, physical exhaustion, humiliation, and other tactics (e.g., Butt-Thompson, 1929; Hayden, 2018; Parks, 2022). The cross-cultural prevalence and persistence of hazing has inspired broad academic attention, but little in the way of empirically well-established theories

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We thank Ryan Strome for research assistance as well as Gentry McCreary, Jana Mathews, and Gary Wisner Jr. for valuable feedback.

This research was partially supported by Kent State University and by a grant from the Timothy J. Piazza Center for Fraternity and Sorority Research. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of Kent State University or Pennsylvania State University.

Aldo Cimino has received research funding from the North American Interfraternity Conference and the Timothy J. Piazza Center for Fraternity and Sorority Research. He has also received an instance of travel assistance from the Hazing Prevention Network (an antihazing advocacy organization) to present his research.

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(see reviews in Biddix et al., 2024; Cimino, 2011). One of the issues with summarizing the hazing literature is that it pertains to many different focal groups (e.g., college fraternities, war cults), asks questions at different levels of analysis (e.g., individual, group, society), and uses different theoretical frameworks to seek answers (e.g., evolutionary theory, gender studies). Cimino (2011) has organized the hazing literature around three recurrent, high-level themes: solidarity (hazing increases group cohesion), dominance (hazing creates dominance over newcomers), and commitment (hazing allows for the selection of committed group members). Although these “macro theories” do not capture all relevant theorizing, they efficiently summarize common claims made over the last century (Cimino, 2011). That is, academics have often stated or implied that hazing leads to one of these outcomes or is believed to by its participants (e.g., McCreary & Schutts, 2019). Despite the recurrence of the macro theories, rigorous and direct scientific evidence favoring any of them is minimal (see Biddix et al., 2024; Cimino, 2011; Cimino et al., 2024; Cimino & Thomas, 2022). This is partially due to diverse theoretical frameworks and disciplines that have distributed evidence across orthogonal research questions (Allan et al., 2020; Cimino et al., 2024; Parks, 2022).

From an evolutionary perspective, hazing’s cross-cultural recurrence raises the possibility that it is an adaptation: A pan-human, facultative strategy designed to solve recurrent adaptive problems associated with newcomer integration (Cimino, 2011, 2013). For example, hazing may be designed to discourage free-riding around group entry (e.g., Cimino et al., 2019, 2024). Hazing may also be a byproduct: A set of patterned behaviors whose outcomes played no role in the evolution of its underlying cognitive mechanisms. Resolving this distinction is not trivial: Adaptations have a high burden of proof (Williams, 1966), hazing is very challenging to study (see Method section), and the term “hazing” is used broadly enough to encompass disparate causal processes (Allan et al., 2019; Cimino, 2017; Crow & Macintosh, 2009; Sasso et al., 2024). As a consequence, some relevant work on hazing can be described as attempts to better understand its recurrent contexts, predictors, and outcomes (e.g., Cimino, 2016; Cimino et al., 2024; Cimino & Thomas, 2022; McCreary & Schutts, 2019; Perez & Cimino, 2024). That is, to inform

and constrain the set of plausible explanations for the phenomenon and to increase the precision with which research questions can be asked, including those pertaining to adaptation. In this research report, we further this effort by presenting tests of a proximate, cognitive model of hazing implementation: Fungible Dysphoria. Fungible Dysphoria is not a model of hazing’s possible motivating inputs (e.g., the threat of free riding) or a model of hazing’s possible distal effects on hazees (e.g., the creation of solidarity). Instead, Fungible Dysphoria is an *intermediate* model designed to partially explain how hazing motivation—whatever its initial source—is processed and manifested into real-world ordeals—whatever their distal effects. It thus constitutes some of the cognitive “plumbing” that may be involved in more comprehensive theories of hazing (see Fungible Dysphoria section).

Fungible Dysphoria also has relevance to the evolutionary study of costly rituals, of which hazing is a distinct subset with its own regularities (see Cimino, 2013; Cimino et al., 2024; Cimino & Thomas, 2022). Although there are many models pertaining to the evolutionary function of broad sets of costly rituals (e.g., Barker et al., 2019; Kavanagh et al., 2019, 2020; Kundt & Lang, 2024; Whitehouse et al., 2017), we know of none that attempt to explain, at a cognitive level, how such rituals are initially constructed. If Fungible Dysphoria is applicable to hazing, it may be applicable to some nonhazing costly ritual contexts as well.

Defining Hazing

Our study used Cimino’s “strict” definition of hazing:

Hazing is nonaccidental, costly aspects of group induction activities that: a) do not appear to be group-relevant assessments/preparations, or b) appear excessive in their application. Group induction activities are those tasks formally or informally required to obtain membership or participatory legitimacy for new or prospective members. (Cimino, 2017, p. 144)

For example, the use of calisthenics as a group induction activity is task-relevant to athletic teams, but not to social fraternities. As Cimino (2011) has emphasized, the strict definition exists only to circumscribe the phenomenon to be explained. That is, the definition is not a claim that hazing is *necessarily* excessive or group-irrelevant, only that it gives such an appearance. It is this anomalous appearance that merits investigation. Although all

definitions of hazing in current use involve some degree of subjectivity (including Cimino's), alternative definitions of hazing tend to be *more* subjective and idiosyncratic (see discussions in Cimino, 2017; Thomas et al., 2021).

Fungible Dysphoria: A Partial Model of Hazing Implementation

It is clear that real-world hazing practices create *costs* for hazees. Costs can include opportunity costs, energetic costs (e.g., calisthenics), somatic costs (e.g., beatings), and social costs (e.g., humiliation). For example, in the pseudonymous fraternity "Alpha," inductees were subjected to weeks of exhausting, punitive calisthenics (Cimino, 2016). However, we suspect that hazers do not typically construct hazing ordeals using direct representations of relevant currencies (e.g., time costs, energy costs). Instead, we suspect that hazers use estimates of *dysphoria* (i.e., subjective unpleasantness). Proximately, we suspect that this happens for two reasons: (a) dysphoria serves as a cross-domain proxy for "cost," because subjective discomfort tends to be triggered by events that represent actual or imminent costs (e.g., physical injury, social ostracism); (b) the cognitive estimation of dysphoria may be more computationally tractable than the cognitive estimation of "cost" using different currencies. For example, we suspect that it is easier to estimate that intense humiliation will be experienced as very dysphoric than it is to estimate the event's social impact (e.g., the extent of lost social support). The latter is what would be required to more directly estimate the "cost" of the humiliation, and comparative computational difficulties may obtain for other costs (e.g., physical injuries). Thus, simulating expected dysphoria may be a fast and efficient heuristic that allows for rough estimations of cost that can be combined across otherwise divergent currencies.

Fungible Dysphoria has five key propositions:

1. The primary, proximate goal of hazing is the creation of discomfort in newcomers (i.e., dysphoria).¹ Dysphoria has numerous possible vectors, by which we mean methods of inducing discomfort with distinctive qualia: physical pain from injuries, muscle fatigue from exercise, feelings of humiliation from mockery, nausea

from consumed substances, a sense of tedium or frustration from menial tasks.

2. Incumbents represent the perceived capacity of an induction activity to generate dysphoria (regardless of vector) as a variable with an approximate analog quantity (DYSPHORIA). When a single activity has multiple vectors of dysphoria that are imposed concurrently or in close succession (e.g., humiliation and muscle fatigue), these values are combined in a roughly additive or multiplicative manner to calculate the activity's DYSPHORIA.
3. Incumbents represent induction activities that produce dysphoria as contributing to a separate variable that combines DYSPHORIA values across induction activities separated in time (TOTAL DYSPHORIA).
4. Incumbents represent a goal-state variable (TOTAL DYSPHORIA GOAL) that indicates whether the value of TOTAL DYSPHORIA has accumulated to a point of satisfaction.
5. Incumbents create and execute hazing activities to reduce the difference between TOTAL DYSPHORIA and TOTAL DYSPHORIA GOAL.

What Fungible Dysphoria Is Designed to Explain

Fungible Dysphoria is intended to provide a proximate, partial explanation for the implementation of hazing and some of its key observable regularities:

1. Proximately, hazing ordeals are implemented because incumbent members perceive actual or possible group-relevant induction activities as generating insufficient dysphoria. This prompts either (a) the intensification of otherwise group-relevant activities

¹ Hazing may have other proximate goals, but this model assumes that they are of lesser importance. Note that a proximate goal may still be a means to a distal goal, such as the creation of solidarity, selecting out less committed individuals, etc.

to generate more dysphoria (creating the perception of *excessiveness* in Cimino’s definition), or (b) the use of bespoke, dysphoria-focused induction activities (creating the perception of *group irrelevance* in Cimino’s definition). Although both processes necessitate additional costs for newcomers, the manner in which these costs are imposed appears to be specifically (rather than incidentally) oriented toward near-term discomfort (see details later).

2. Proximately, hazing ordeals have a great deal of surface-level variation across organizations and cultures because the logical space of dysphoria-inducing activities is effectively infinite, and different vectors of dysphoria are cognitively transformed by incumbents into a shared currency (DYSPHORIA). This means that incumbents intuitively regard seemingly disparate hazing ordeals as having a shared utility and thus will often regard them as being combinable (for greater effect) and exchangeable (when roughly equivalent in dysphoric potential).
3. Proximately, hazing processes have an end point because incumbents have intuitions that there is a satisfactory level of cumulative dysphoria (TOTAL DYSPHORIA GOAL), and this variable’s range always excludes infinity.

Implicit in the Fungible Dysphoria model is the idea that real-world hazing practices constitute a kind of cultural attractor. That is, incumbents in similar circumstances will tend to have similar intuitions about how to treat newcomers (Cimino, 2011; Cimino & Delton, 2010; Delton & Cimino, 2010), including how much dysphoria to impose.² The existence of these similar intuitions will increase the probability that incumbents invent or adopt practices that meet the definition of hazing. Such intuitions will tend to endure over time and thus support the maintenance of hazing traditions.

Although incomplete and simplified, Fungible Dysphoria may help to explain puzzling elements of real-world hazing behavior. Consider, as a thought experiment, an alternative psychology that was focused on imposing

“costs” on newcomers without using dysphoria as a proxy. Such a psychology might be satisfied with quotidian costs like donations or energy expenditures from pleasant activities (e.g., dancing, athletic sports). In addition, this psychology would be unlikely to create elaborate dysphoric practices that only trivially increase costs for hazees, such as those inducing fear and anxiety (see examples in Buhrmester et al., 2022; Cimino, 2011, 2016). Or consider a different thought experiment: What would happen if a hazing practice somehow lost its ability to create *dysphoria* but still retained its *costs*? For example, imagine a world in which Alpha’s exhausting calisthenics became subjectively effortless for inductees but required the same metabolic energy consumption. A close reading of Alpha’s methods (including a stated desire to “break” inductees) strongly suggests that they would use a different ordeal to restore dysphoria (Cimino, 2016, p. 19).

The above arguments are not intended to imply that the costs of hazing (or similar practices) are irrelevant to their evolution or possible ultimate function. Instead, these arguments are in the service of scrutinizing the proximate cognitive processes that best correspond with observable behavior.

Importantly, because Fungible Dysphoria was designed to be roughly compatible with real-world hazing regularities, any gross conformance between the model and said regularities does not constitute independent evidence of its predictive value. Thus, in this research report, we focus on testing individual-level, cognitive predictions of the model. Specifically, we focus on testing the cognitive exchangeability (i.e., fungibility) and combinability of dysphoria in the creation and implementation of hazing ordeals. To perform our tests with relevant samples, we conducted in-person, anonymous surveys with undergraduate college fraternities. These surveys were used to test three core predictions of Fungible Dysphoria.

²Fungible Dysphoria does not make predictions about the conscious availability of its proposed processes. Thus, we are not suggesting that hazers will necessarily describe the proximate goal of hazing as “dysphoria” (or some synonym) nor that they will experience themselves mentally calculating DYSPHORIA values.

Predictions

When Presented With a Hazing Ordeal, Participants Will Treat the Ordeal as—In Principle—Fungible

Participants will regard a hazing ordeal as fungible (i.e., replaceable) if they are given complete control over the content of the replacement. This is a test of unconstrained fungibility in that it does not attempt to determine what the replacement will be, only that—given complete freedom—there is a conceivable, effective substitution. This is important for two reasons: (a) Fungible Dysphoria assumes the existence of lower-level ordeal properties that allow for exchanges and (b) testing this prediction checks for the existence of strong content-neutral, high-level barriers to fungibility. For example, if participants believe that *any* nontrivial alteration of a hazing ordeal is an unacceptable violation of tradition (e.g., Stein et al., 2022), they will reject fungibility categorically. In that case, however, their rejection would be a product of a higher level axiom (something like “preserve this ordeal as tradition”) rather than a lower level analysis of prospective replacements (e.g., levels of dysphoria). Although both high-level and low-level barriers to fungibility likely exist, this research effort is explicitly focused on low-level barriers. We also expect that high-level barriers are not so great or widespread as to prevent ordeal changes over time.

After Rating the Dysphoria of a Hazing Ordeal, Participants Will Be Able to Construct an Equivalently Dysphoric Hazing Ordeal That Involves Different Activities

Fungible Dysphoria predicts that incumbents construct hazing ordeals using estimations of their dysphoric capacity that can be abstracted from specific vectors of dysphoria. It follows that, if participants rate a hazing ordeal in terms of its subjective unpleasantness, they should be able to construct a different hazing ordeal with a roughly equivalent amount of subjective unpleasantness. (This may involve combining several different, prerated activities into a singular hazing event.) Because the process of projecting estimated levels of subjective unpleasantness onto rating scales is inherently noisy, we do not predict high linear precision. However, we do expect a positive correlation between the rated unpleasantness of an ordeal

and the rated unpleasantness of its replacement. Negative correlations (or correlations near zero) may suggest that internal estimations of dysphoria are too noisy to serve as constitutive elements of ordeal construction.

When Considering Two Different Hazing Ordeals, Participants Will Regard the Ordeals as Fungible if They are Perceived to Have Roughly Equivalent Dysphoria With One Another

Participants will regard two different hazing ordeals (regardless of dysphoria vectors) as fungible if they are perceived to have roughly equivalent dysphoria with one another. Deviations from dysphoric equivalence will render the two sets of hazing ordeals less fungible.

Method

Our participants consisted of 275 active, undergraduate members of three different college fraternities located in the United States. We have given these fraternities the pseudonyms “Delta” (93 participants), “Epsilon” (109 participants), and “Zeta” (73 participants). (Our data and stimuli are available for download: https://www.aldocimino.com/fungibility-data_code_stimuli.zip). The nature of our project required a high level of anonymity, and thus we did not collect any demographic information from participants. In addition, we will not report the actual fraternities, chapters, schools, or states involved, nor will we provide information that might narrow down the participating organizations, such as membership in a particular council, traditional racial composition, and so forth. To understand why we took these steps requires reviewing the current context of fraternity hazing in the United States.

To say that hazing is “against the rules” for undergraduate fraternities is to put it mildly. To the best of our knowledge, all national Greek letter organizations forbid hazing, all U.S. colleges and universities disallow hazing, and at least 44 states have antihazing laws (e.g., Anti-Hazing Coalition, 2025; StopHazing Consulting, 2020). As of December 2024, the United States also has a federal antihazing law, the Stop Campus Hazing Act (Congress.gov, 2024). The Stop Campus Hazing Act requires colleges and universities to report hazing incidents as part of regular security disclosures.

If fraternities are caught hazing, multiple authorities may independently and simultaneously seek punishment. Punishments can include chapter dissolution, the academic expulsion of participants, as well as civil and criminal charges. On top of such punitive threats, fraternity members appear to be regularly exposed to antihazing messaging. This can consist of visiting speakers who extol the virtues of hazing-free inductions (e.g., CAMPUSPEAK, n.d.), documentary videos on the dangers of hazing (Clery Center, n.d.), forceful and exaggerated claims on university websites (e.g., Cimino, 2023), and so forth. Some campuses also take part in “National Hazing Prevention Week,” which may involve the distribution of yet more sources of antihazing messaging (e.g., fliers, buttons, brochures). Thus, fraternity members engaged in hazing are well-aware that they ought to deny doing so and are further aware that they ought to present themselves to the public (and to institutional authorities) as antihazing in all respects.

The overtly antihazing environment of modern colleges and universities does not mean that obtaining prohazing answers to survey questions is impossible (e.g., Cimino et al., 2019). However, it creates obvious motivations to provide socially desirable responses to any pertinent study. To mitigate these issues, we took extensive precautions and chose an in-person, paper-based survey approach, as described later. Given the existence of massive online survey platforms, the idea of making special arrangements to give in-person, paper-based surveys to smaller groups may seem wasteful and limiting. Consider the costs and logistics of traveling to different states, transporting 80–100 pounds of survey packets and other materials, not to mention the additional time and cost of digitizing paper-based surveys. However, this approach—in combination with other choices—allowed us to increase validity and address actual fraternities *in situ*. Our complete set of validity-protective efforts was as follows:

1. We obtained permission from our Institutional Review Board (IRB) to use verbal consent only. This avoids collecting any named records of participants via consent forms.
2. We did not gather demographic information from participants and additionally assured participants that we would not use the name of their fraternity or

its associated chapter, school, state, and so forth.

3. We used cash as remuneration for participation. This avoids individually traceable electronic payments or gift cards.
4. We used an anonymous, paper-based survey instead of an electronic survey. Electronic survey platforms can sometimes surreptitiously collect potentially identifying information (e.g., Internet Protocol addresses), and their use might raise suspicion in some participants. Furthermore, we note that our IRB requires that electronic surveys be described to participants as “confidential” rather than “anonymous.” However, the words “confidential” and “anonymous” mean *very different things*, and surveys that are described as “confidential” (rather than “anonymous”) can reduce honest responding on sensitive topics (e.g., Beatty et al., 2014; Ong & Weiss, 2000).
5. Our survey used a vignette approach, asking participants to imagine themselves in a different, fictional fraternity before answering questions (see details in the next section). This was done to give participants more freedom to answer honestly, as they did not need to reveal any information about their actual chapter.
6. Our survey never used the loaded term “hazing,” and instead used neutral terms (hazing ordeals were called “challenges”).
7. Our survey was conducted by the Principal Investigator, in-person, at private chapter meetings of the participating fraternities. The PI has performed lengthy field projects with different fraternities in the past and has relevant expertise on fraternity cultures. Conducting the survey in-person was done to give the PI an opportunity to verbally explain the study, emphasize its anonymity, and provide immediate cash payments for participation. This was also done so that the PI could read the instructions and vignette aloud. Reading critical study information aloud was done to reduce the risk that participants would skim the overview of the study (including anonymity information)

and also to provide an opportunity for participants to ask questions.

In taking all of the above precautions, we do not mean to imply that any collegiate hazing study without them is untrustworthy. In some cases, taking lesser precautions may pose little danger to a study's validity, particularly when survey questions are asked in a comparatively abstract or indirect manner (e.g., McCready, 2020; McCreary & Schutts, 2019; Schiffer et al., 2022). However, our stimuli involved a number of extremely blunt questions that necessitated substantial mitigations against socially desirable answers.

Procedure and Stimuli

Each fraternity encounter took approximately 30 minutes from start to finish. About half of that time was devoted to the survey described in this article, whereas the other half was devoted to a different survey not addressed here. The study procedure was as follows:

1. The PI verbally explained the study instructions, including information about anonymity and the fact that there were no right or wrong answers (see "Approximate Read-Aloud Instructions" in our data set package).
2. The PI read aloud the vignette for the Fungibility Survey. This tasked participants with imagining themselves in a group called "Fraternity Y," a high-status fraternity that hazed their inductees (i.e., pledges,

see Understanding the Fraternity Y Vignette section).

3. Participants completed the Fungibility Survey (see our data set package for the complete stimuli). This consisted of the following steps:
 - a. Rating the unconstrained fungibility of four hazing ordeals (Set A) with different dysphoria vectors: drinking heavily, being paddled, being mocked while undressed, and enduring an ice bath (see Figure 1).
 - b. Rating the dysphoria associated with 12 hazing ordeals (Set B), inclusive of the four ordeals in Set A. Set B ordeals were presented with adjacent pictographs to assist with visual differentiation and memory (see Figure 2).
 - c. Constructing dysphorically equivalent replacement events for each of the four Set A ordeals using any ordeals from Set B that were not also present in Set A (see Figure 3).
 - d. Rating the efficacy of the constructed replacement events (see Figure 4).
4. After all participants completed the Fungibility Survey, they moved on to the aforementioned second survey (not addressed here).
5. Once all participants had completed the second and final survey, the surveys

Figure 1

Example of Unconstrained Fungibility Rating Task

Fraternity Y has a standard pledging event where **pledges endure drinking alcohol until they are nauseated and vomiting**. As the person in charge of Fraternity Y's pledging process, do you think this event could be replaced with a different event without losing its effectiveness? Assume the replacement event can require **anything** other than drinking alcohol, including activities that are equally unpleasant, less unpleasant, or more unpleasant for pledges.

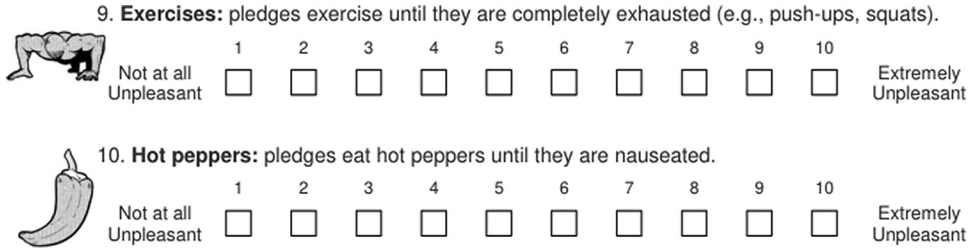
1. Given these conditions, it is possible to replace this event without losing its effectiveness.

Strongly Disagree Disagree Disagree Slightly Neither Agree nor Disagree Agree Slightly Agree Strongly Agree

Note. Likert scales were assessed as 1–7.

Figure 2

Examples of Dysphoria Rating Tasks From Set B



were returned and payment was provided.

a series of decisions. Your decisions should be based on what you would do if Fraternity Y were real and you were an actual member.

Understanding the Fraternity Y Vignette

The complete vignette for Fraternity Y is given below. All emphases were present in the original survey. Bracketed numbers have been added to provide explanations of key elements in the subsequent section. The vignette was also read aloud by the PI:

For the purposes of this study, imagine that Fraternity Y can do whatever it wants and never get in trouble.[1]

You are an active, initiated member of “Fraternity Y.” Fraternity Y is considered a top-tier fraternity on their campus and has close relationships with the top-tier sororities on their campus.[2]

Fraternity Y has a difficult pledging process where pledges must complete a number of challenges, including challenges involving alcohol (like drinking large quantities in a short period of time); exercise (like









In this study, you will read a description of a hypothetical fraternity called “Fraternity Y.” You will imagine that you are a member of this fraternity and then make

Figure 3

Example of the Dysphorically Equivalent Replacement Task

Fraternity Y has a standard pledging event where **pledges endure drinking alcohol until they are nauseated and vomiting.**

18. Select **one or more challenges** to create a new event that would be **equally unpleasant** to the standard event (or as close to equally unpleasant as you can make it):

-  **Exercises:** pledges exercise until they are completely exhausted (e.g., push-ups, squats).
-  **Hot peppers:** pledges eat hot peppers until they are nauseated.
-  **Shaved heads:** pledges have their heads shaved.
-  **House cleaning:** pledges spend all day thoroughly cleaning the chapter house.
-  **Personal errands:** pledges spend all day running personal errands for actives.
-  **Sleep deprivation:** pledges are deprived of a day of sleep.
-  **Food deprivation:** pledges are deprived of a day of food.
-  **Weighted backpacks:** pledges spend all day carrying heavy weights in their backpacks.

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Figure 4*Example of the Efficacy Rating Task*

As the individual in charge of Fraternity Y's induction, consider the following questions about the new event you just created:

19. This new event would be an effective replacement for the standard event.

Strongly Disagree Disagree Disagree Slightly Neither Agree nor Disagree Agree Slightly Agree Strongly Agree

20. If this new event were **much less unpleasant**, it would be an effective replacement for the standard event.

Strongly Disagree Disagree Disagree Slightly Neither Agree nor Disagree Agree Slightly Agree Strongly Agree

21. If this new event were **much more unpleasant**, it would be an effective replacement for the standard event.

Strongly Disagree Disagree Disagree Slightly Neither Agree nor Disagree Agree Slightly Agree Strongly Agree

Note. Likert scales were assessed as 1–7.

push-ups and squats); house cleaning; and other activities. Throughout these challenges, pledges are strictly controlled and monitored by active members. Pledges must also learn the Greek alphabet and the history of Fraternity Y.

This year, you have been placed in charge of Fraternity Y's pledging process.[3]

Although Fraternity Y has a standard set of challenges, **the person in charge of the challenges is explicitly allowed to make any changes they want to these events.**[4] In the following questions, you will consider whether some of these events can be replaced without losing their effectiveness.

Explanations of Key Vignette Elements

1. Fraternity Y has impunity: Some hazing practices may be more likely to be discovered by authorities or (upon discovery) may invite harsher punishment. These facts may influence the willingness to use specific hazing ordeals. However, we are interested in measuring intuitions that are logically prior to considerations of punitive institutional responses.
2. Fraternity Y has a high status: A high status was emphasized as it may psychologically license the use of hazing (Cimino, 2011, 2013; Cimino et al.,

2019; but see also Kavanagh et al., 2019). Connections with local high-status sororities are common indicators of being a high-status fraternity (G. McCreary, personal communication, 2025).

3. The participant is the Pledge Educator: Participants are in charge of Fraternity Y's induction process. This is a common executive role within fraternity chapters, regardless of whether they haze (Hopson, 2025). Such individuals are sometimes called "Pledge Educators," but terminology can vary. For communicative efficiency, we will describe participants as being in the role of "Pledge Educator," though the vignette avoided a specific title to accommodate real-world terminological variation.
4. The Pledge Educator has full control: Although taking on the role of Pledge Educator grants some degree of control over the induction (e.g., Cimino, 2016), the ability to make modifications may vary across real-world fraternities. As such, we specified that the Pledge Educator has full control and can make any modifications they want to the induction process.

Our Studies as Brief Fieldwork

The studies in this article were all based on prearranged field encounters with three pseudonymous fraternities (Delta, Epsilon, Zeta) at actual chapter meetings. These are not controlled laboratory environments. Thus, below we describe notable elements of these encounters as well as minor variations in procedure:

1. Fraternity meetings are semi-formal in their execution (e.g., they are ordered, have planned topics of discussion, and may involve voting procedures), but they are also social environments. This means that some degree of murmuring or talking was always present, even when fraternity members were asked to be quiet during survey completion.
2. All chapters had at least some members who seemed to negatively react to the size of the survey packets they were given. The surveys were deceptively large because each page was single-sided and had considerable white space to increase readability. The PI assured members that the surveys would take less time than their appearance suggested.
3. Every chapter vocally responded, in some way, to parts of the vignette as it was spoken aloud by the PI. Responses were largely nonverbal but read to the PI like acknowledgments (along the lines of "Oh!"). Epsilon had the loudest and most specific reactions of any of the chapters. Specifically, when the PI noted that Fraternity Y was connected to high-status sororities, one member loudly said "HORNY," which caused a peal of laughter in the room.
4. Two members of Zeta arrived late to the chapter meeting and after initial survey instructions had been read. The PI lost track of which two specific members had arrived late and thus had no way of excluding them from data analysis.
5. The PI had planned to prompt for questions after reading study instructions and after reading the vignette itself. However, the PI did not consistently

prompt for questions after the vignette. Note, however, that fraternity members (when asked) never had questions, gave visual and vocal cues of attention, and almost universally answered the survey's attention check correctly (see Study 1 and Study 2).

Study 1: Delta

Descriptive Statistics

A total of 93 active members of Delta participated in Study 1. One participant was excluded from analysis for failing an attention check. Table 1 presents descriptive statistics and bivariate correlations for the rating scales in Study 1.

Did Participants Regard Hazing Ordeals as In-Principle Fungible?

Yes. For all Set A ordeals, average participant agreement with the possibility of effective replacement (e.g., Figure 1) was significantly above the scale midpoint ($\mu = 4$), as determined by single-sample t tests: drinking heavily ($M = 5.65$, $SD = 1.28$), $t(91) = 12.39$, $p < .001$; being paddled ($M = 5.51$, $SD = 1.34$), $t(91) = 10.82$, $p < .001$; being mocked while undressed ($M = 5.78$, $SD = 1.29$), $t(91) = 13.25$, $p < .001$; and enduring an ice bath ($M = 5.08$, $SD = 1.65$), $t(91) = 6.27$, $p < .001$.

Were Participants Able to Construct Hazing Ordeals With Roughly Equivalent Dysphoria?

Mostly. Recall that participants were tasked with creating an equivalently dysphoric replacement for each Set A ordeal using different ordeals from Set B (e.g., Figure 2). For analysis, we generated Pearson correlations between the unpleasantness ratings of the Set A ordeals and the total unpleasantness ratings of their replacements. Positive, significant (and nontrivial) correlations constitute model-supportive findings. For drinking heavily ($r = .31$, $p = .002$), being mocked while undressed ($r = .35$, $p < .001$), and enduring an ice bath ($r = .31$, $p = .003$), participants' original unpleasantness ratings correlated significantly and positively with the total unpleasantness of their replacements. For being

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Table 1
Descriptive Statistics and Correlations (Study 1)

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Drinking In-Principle Fungibility	5.65	1.28																			
2. Paddling In-Principle Fungibility	5.51	1.34	.50**																		
3. Mocking In-Principle Fungibility	5.78	1.29	.41**	.45**																	
4. Bathing In-Principle Fungibility	5.08	1.65	.43**	.51**	.44**																
5. Drinking Replacement Dys.	13.87	10.12	.18	.01	.11	.15															
6. Paddling Replacement Dys.	11.26	9.88	.03	-.08	-.07	.10	.67**														
7. Mocking Replacement Dys.	11.34	9.20	.09	-.01	.07	.18	.65**	.85**													
8. Bathing Replacement Dys.	10.48	9.28	-.05	-.08	-.02	.07	.51**	.64**	.59**												
9. Drinking Replaced Efficacy ^a	4.61	1.71	.05	-.15	-.13	-.11	-.19	-.16	.00	-.18											
10. Drinking Replaced Efficacy ^b	4.38	1.54	.00	-.03	-.01	.04	.14	.03	.11	-.10	.35**										
11. Drinking Replaced Efficacy ^c	3.20	1.48	-.04	-.14	-.10	-.34**	-.14	.08	.08	.06	.19	-.11									
12. Paddling Replaced Efficacy ^a	4.75	1.66	.00	-.10	.06	.07	-.19	-.23*	-.16	-.23*	.50**	.30**	.02								
13. Paddling Replaced Efficacy ^b	4.51	1.49	.00	-.08	.05	.07	.19	.04	.20	.07	.21*	.52**	-.13	.25*							
14. Paddling Replaced Efficacy ^c	3.42	1.59	-.19	-.13	-.09	-.30**	-.16	-.14	-.19	-.13	.07	-.07	.62**	.20	-.30**						
15. Mocking Replaced Efficacy ^a	4.68	1.74	-.03	-.19	-.02	.00	-.15	-.14	-.15	-.08	.53**	.24*	.10	.59**	.25*	.13					
16. Mocking Replaced Efficacy ^b	4.48	1.58	-.04	-.02	.05	.00	.03	.03	.07	-.01	.20	.44**	-.11	.25*	.41**	-.10	.37**				
17. Mocking Replaced Efficacy ^c	3.25	1.56	-.11	-.17	-.09	-.37**	-.18	-.26*	-.20	-.18	.28**	-.07	.59**	.12	-.12	.59**	.19	-.26*			
18. Bathing Replaced Efficacy ^a	4.88	1.65	-.04	-.11	-.09	.02	-.03	-.04	-.00	-.23*	.50**	.27*	.03	.52**	.26*	.14	.59**	.19	.11		
19. Bathing Replaced Efficacy ^b	4.47	1.59	.00	-.02	-.05	.09	.09	-.03	.09	-.14	.35**	.58**	-.14	.28**	.64**	-.15	.29**	.57**	-.05	.36*	
20. Bathing Replaced Efficacy ^c	3.47	1.62	-.15	-.08	-.01	-.28**	-.12	-.19	-.21*	-.18	.01	-.12	.45**	.12	-.18	.73**	.14	-.18	.60*	.10	-.26*

Note. Dys. = Dysphoria.

^aThis new event would be an effective replacement for the standard event. ^bIf this new event were much less unpleasant, it would be an effective replacement for the standard event.

^cIf this new event were much more unpleasant, it would be an effective replacement for the standard event.

* $p < .05$. ** $p < .01$.

paddled ($r = .12, p = .265$), however, the relationship was smaller and nonsignificant.

Did Participants Believe That Hazing Ordeals With Equivalent Dysphoria Were Fungible?

Only slightly. For all Set A ordeal replacements, average participant agreement with their efficacy was significantly above the scale midpoint ($\mu = 4$), as determined by single-sample t tests: drinking heavily ($M = 4.61, SD = 1.71$), $t(91) = 3.42, p < .001$; being paddled ($M = 4.75, SD = 1.66$), $t(90) = 4.30, p < .001$; being mocked while undressed ($M = 4.68, SD = 1.74$), $t(91) = 3.77, p < .001$; and enduring an ice bath ($M = 4.88, SD = 1.65$), $t(90) = 5.10, p < .001$. Note, however, that average agreement levels were only slightly higher than the midpoint of the scale (i.e., “Neither Agree nor Disagree”).

A similar pattern of responding was observed in follow-up questions about whether changes in unpleasantness would impact efficacy (e.g., Figure 4, Q20 and Q21). When participants considered a replacement ordeal that was much *less* unpleasant, they reported higher efficacy agreement levels for all Set A ordeals (all $ps < .03$), but average agreement was again very close to the scale’s midpoint (4.38–4.51, Table 1). Conversely, when considering a replacement that was much *more* unpleasant, they reported lower agreement levels for all Set A ordeals (all $ps < .003$), but average agreement remained very close to the scale’s midpoint (3.20–3.47, Table 1).

Study 1: Discussion

Study 1 provides some initial evidence for the prediction that hazing ordeals are *in-principle* fungible. Although this is theory-consistent, it is not without ambiguity. One way to interpret in-principle fungibility is as a straightforward reflection of social desirability. That is, given the option to endorse an unspecified replacement for a hazing ordeal (e.g., Figure 1), participants may do so to falsely signal their willingness to use a *nonhazing* replacement. We suggest, however, that this response pattern would predict near-ceiling levels of agreement. That is, participants would “Strongly Agree” with the possibility of an effective replacement. The fact that participants were more muted in

their agreement suggests to us a greater probability of honest responding, likely because they did not need to reveal the details of their preferences.

As predicted by Fungible Dysphoria, participants appeared capable of reasoning about dysphoria in a roughly additive manner. However, participants were only slightly in agreement with the efficacy of their constructed replacement ordeals. Although there are a number of possibilities for this pattern of responding, we were particularly concerned about the contribution of social desirability, as the questions at issue were the most susceptible to its influence (e.g., Figure 4). Specifically, to answer in a way consistent with Fungible Dysphoria, participants needed to select a set of bluntly described hazing ordeals and then endorse them as “effective.” It is possible that no preparatory mitigations can fully remove the morally valenced nature of such a task. Furthermore, without intending to, we had created a situation in which the most socially desirable answer was ambivalence (i.e., “Neither Agree nor Disagree”). This is why: If participants created a replacement ordeal and then endorsed it as an *effective* replacement, they would be personally endorsing hazing. If they described it as *ineffective* replacement, they would be endorsing the *existing* hazing ordeal, not rejecting hazing. The only socially desirable option was to avoid strongly endorsing both the old and the new ordeal. To address this concern, we needed to make alterations to our survey that would allow participants to answer equivalent questions without morally implicating themselves.

Study 2: Epsilon and Zeta

Survey Changes

Before gathering data from Epsilon and Zeta, we made alterations to our survey to reduce the threat of socially desirable responding on key questions. We settled on an “indirect” and “forgiving” approach (Tourangeau & Yan, 2007). We will first describe the changes and then summarize their intended impact and interpretation:

1. The final paragraph of the Fraternity Y vignette was altered to make all induction changes explicitly contingent upon

the approval of actives (emphasis in original):

“This year, you have been placed in charge of Fraternity Y’s pledging process. Although Fraternity Y has a standard set of challenges, **the person in charge of the challenges (that’s you) is explicitly allowed to make any changes they want to these events, but actives must approve them.**”

2. Step II was altered such that rating the unpleasantness of Set B ordeals no longer also involved rating Set A ordeals. Ratings of Set A ordeals were moved to Step III (e.g., Figure 5).
3. Step III used new questions that incorporated the approval of actives (see Figure 5).
4. Step IV added new explanatory text that incorporated the vignette change (see Figure 6).

Thus, in the modified survey, participants still imagined themselves as Pledge Educators, but they answered key questions in the terms of what actives wanted (i.e., fellow incumbents). This was done so that participants could project their own preferences onto actives and thus indicate them indirectly. It also allowed participants to construct replacement hazing ordeals in a “forgiving”

manner, that is, without having to indicate that they personally endorsed their use.

Descriptive Statistics

A total of 182 active members of Epsilon ($n = 109$) and Zeta ($n = 73$) participated in the study. Two of these participants (one from each fraternity) were excluded for failing an attention check. Table 2 presents descriptive statistics and bivariate correlations for the rating scales in Study 2.

Did Participants Regard Hazing Ordeals as In-Principle Fungible?

Yes. For all Set A ordeals, average participant agreement with the possibility of effective replacement was significantly above the scale midpoint ($\mu = 4$), as determined by single-sample t tests: drinking heavily ($M = 5.37, SD = 1.52$), $t(178) = 12.10, p < .001$; being paddled ($M = 6.11, SD = 1.19$), $t(178) = 23.66, p < .001$; being mocked while undressed ($M = 5.97, SD = 1.36$), $t(178) = 19.35, p < .001$; and enduring an ice bath ($M = 5.14, SD = 1.71$), $t(179) = 8.97, p < .001$.

Figure 5
Example of New, Indirect Efficacy Task

Fraternity Y has a standard pledging event where **pledges endure drinking alcohol until they are nauseated and vomiting.**

14. How unpleasant do you think this event is for pledges?

	1	2	3	4	5	6	7	8	9	10	
Not at all Unpleasant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extremely Unpleasant

15. You have decided to replace this event. If you replace this event, **the actives will want a replacement that is...**

	1	2	3	4	5	6	7	8	9	10	
Not at all Unpleasant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extremely Unpleasant

16. If your replacement event **does NOT match the level of unpleasantness that actives want, they will reject it.**









Strongly Disagree	Disagree	Disagree Slightly	Neither Agree nor Disagree	Agree Slightly	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note. Likert scales were assessed as 1–7.

Figure 6

Example of New, Indirect and Forgiving Preference-Matching Replacement Task

17. Select **one or more challenges** to create a replacement event that **matches the level of unpleasantness that actives will want**, even if it is different than what you want:

-  **Exercises:** pledges exercise until they are completely exhausted (e.g., push-ups, squats).
-  **Hot peppers:** pledges eat hot peppers until they are nauseated.
-  **Shaved heads:** pledges have their heads shaved.
-  **House cleaning:** pledges spend all day thoroughly cleaning the chapter house.
-  **Personal errands:** pledges spend all day running personal errands for actives.
-  **Sleep deprivation:** pledges are deprived of a day of sleep.
-  **Food deprivation:** pledges are deprived of a day of food.
-  **Weighted backpacks:** pledges spend all day carrying heavy weights in their backpacks.

Were Participants Able to Construct Hazing Ordeals With Preference-Matching Dysphoria?

Partially. For Study 2, we gave participants the up-front option of indicating a desire for a dysphorically nonequivalent ordeal, as measured by what actives want (e.g., Figure 5). Thus, we tested for correlations between (a) the amount of dysphoria that actives want (and by inference, participants) and (b) the total unpleasantness of participants' constructed replacements to match this want (e.g., Figure 6). A significant, positive correlation was found for being mocked while undressed ($r = .21, p = .004$) and enduring an ice bath ($r = .23, p = .002$), but not for drinking heavily ($r = -.03, p = .692$) or being paddled ($r = .10, p = .174$).

Did Participants Want Equivalently Dysphoric Ordeal Replacements and Believe That Equivalently Dysphoric Ordeals Were Fungible?

No. To answer in a manner consistent with Fungible Dysphoria, participants needed to do

both of the following: First, indicate preferences for replacement ordeals (e.g., Figure 5, Q14) with roughly equivalent dysphoria to Set A ordeals (e.g., Figure 5, Q15). Second, indicate that dysphorically nonequivalent replacements would be rejected (e.g., Figure 5, Q16).

To the first point, participants did not generally indicate preferences for dysphorically equivalent replacements: Enduring an ice bath showed a positive, significant correlation ($r = .26, p < .001$), but this was not the case for drinking heavily ($r = -.10, p = .162$), being paddled ($r = .05, p = .511$), or being mocked while undressed ($r = .05, p = .503$).

To the second point, participants indicated some agreement with the idea that nonmatching replacements were likely to be rejected for drinking heavily ($M = 4.59, SD = 1.46, t(178) = 5.41, p < .001$, and enduring an ice bath ($M = 4.27, SD = 1.49, t(178) = 2.42, p = .017$, but agreement levels were very close to the scale midpoint ($\mu = 4$). No significant difference was observed for being paddled ($M = 4.15, SD = 1.58, t(178) = 1.28, p = .204$, or being mocked while undressed ($M = 4.05, SD = 1.68, t(178) = .41, p = .689$).

Table 2
Descriptive Statistics and Correlations (Study 2)

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Drinking In-Principle Fungibility	5.37	1.52																			
2. Paddling In-Principle Fungibility	6.11	1.19	.34**																		
3. Mocking In-Principle Fungibility	5.97	1.36	.31**	.58**																	
4. Bathing In-Principle Fungibility	5.14	1.71	.44**	.30**	.42**																
5. Drinking Rep. Preferred Dys. ^a	6.18	2.00	-.29**	-.16*	-.19*	-.27**															
6. Drinking Nonpreferred Rep. ^b	4.59	1.46	-.20**	-.11	-.08	-.18*	.52**														
7. Drinking Replacement Dys. ^c	13.15	9.60	.10	.11	.08	.03	-.03	.02													
8. Paddling Rep. Preferred Dys. ^a	6.07	2.12	-.12	-.08	-.11	-.17*	.58**	.45**	.01												
9. Paddling Nonpreferred Rep. ^b	4.15	1.58	-.05	-.23**	-.19**	-.21**	.27**	.57**	-.04	.50**											
10. Paddling Replacement Dys. ^c	12.23	9.38	.15	.09	.08	.08	.10	.15*	.45**	.10	.17*										
11. Mocking Rep. Preferred Dys. ^a	5.52	2.15	-.21**	-.12	-.10	-.09	.49**	.29**	-.09	.57**	.34**	.09									
12. Mocking Nonpreferred Rep. ^b	4.05	1.68	-.07	-.18*	-.08	-.17*	.18*	.44**	-.09	.36**	.68**	.14	.43**								
13. Mocking Replacement Dys. ^c	11.26	9.13	.00	.03	.00	.03	.08	.17*	.35**	.07	.07	.67**	.21**	.16*							
14. Bathing Rep. Preferred Dys. ^a	5.46	2.00	-.06	-.02	.02	.09	.37**	.37**	-.07	.54**	.31**	.11	.50**	.24**	.06						
15. Bathing Nonpreferred Rep. ^b	4.27	1.49	-.16*	-.05	.01	-.18*	.40**	.66**	-.05	.45**	.58**	.15*	.39**	.56**	.16*	.47**					
16. Bathing Replacement Dys. ^c	10.57	7.78	.10	.14	.08	.20**	.08	.11	.36**	.11	.08	.62**	.21**	.16*	.63**	.23**	.19*				
17. Drinking Difference Index ^d	2.31	2.27	.09	-.05	.00	.10	-.47**	-.38**	.21**	-.46**	-.23**	.04	-.40**	-.24**	.07	-.41**	-.42**	.05			
18. Paddling Difference Index ^d	2.57	2.56	.15*	.11	.14	.23**	-.48**	-.42**	.10	-.78**	-.52**	.01	-.54**	-.37**	.02	-.48**	-.45**	-.04	.53**		
19. Mocking Difference Index ^d	2.52	2.57	.06	.03	.06	.08	-.35**	-.16*	.20**	-.52**	-.27**	-.04	-.62**	-.29**	-.00	-.41**	-.39**	-.12	.59**	.60**	
20. Bathing Difference Index ^d	1.80	2.19	.18*	.03	.02	.17*	-.43**	-.35**	.18*	-.51**	-.33**	-.06	-.43**	-.22**	-.04	-.40**	-.43**	-.08	.41**	.69**	.55**

Note. Dys. = Dysphoria; Rej. = Reject.

^a“You have decided to replace this event. If you replace this event, the actives will want a replacement that is...” ^b“If your replacement event does NOT match the level of unpleasantness that actives want, they will reject it.” ^cTotal unpleasantness value of constructed replacement. ^dAbsolute value of the arithmetic difference between preferred and replaced dysphoria (see study 2 Discussion).

* $p < .05$. ** $p < .01$.

Study 2: Discussion and Post Hoc Analyses

Study 2 again finds evidence for the *in-principle* fungibility of hazing ordeals. However, in our modified survey, we gave participants the freedom of constructing replacement ordeals at any level of comparative unpleasantness (not just matching unpleasantness) and then indicating the importance of maintaining that level of comparative unpleasantness. Responses were considerably less consistent with Fungible Dysphoria, as compared with Study 1.

Given that Fungible Dysphoria predicts that equivalent exchanges can be made among ordeals with matching dysphoria, we were interested in individual variation in the preference for matching dysphoria. Specifically, we wanted to know whether a participant’s relative preference for matching dysphoria conditioned their responses to other questions. To operationalize this preference, we constructed a variable that we will call the “Difference Index.” The Difference Index is the absolute value of the difference between the *perceived* dysphoria of a standard ordeal from Set A and the *preferred* dysphoria of its replacement. For example, in Figure 6, this would be the absolute value of the difference between Q14 and Q15. Participants with a lower Difference Index for an ordeal are expressing a preference that is more consistent with Fungible Dysphoria.

We used the Difference Index to examine two predictive effects. First, we tested whether a lower Difference Index was associated with a greater likelihood of rejecting ordeals that deviated from preferred dysphoria. This was the case for all Set A ordeals: drinking heavily ($r = -.38, p < .001$), being paddled ($r = -.52, p < .001$), being mocked while undressed ($r = -.29, p < .001$), and enduring an ice bath ($r = -.43, p < .001$).

Second, we tested whether participants with a lower Difference Index were more accurate when creating preference-matching replacement ordeals. This was examined using regression models predicting a replacement’s preferred dysphoria with an interaction term comprised of the total dysphoria of its constructed replacement and the Difference Index (Table 3). In these regressions, a significant interaction term indicates that the relationship between a replacement ordeal’s total dysphoria and its preferred dysphoria is conditioned on the preference for matching dysphoria. Among the four Set A ordeals, we observed a significant interaction term for drinking heavily, $t(173) = -3.53$,

Table 3
Regressions Predicting Preferred Dysphoria of Replacement Ordeals (Study 2)

Predictor	Drinking heavily ^a		Being paddled ^b		Being mocked while undressed ^c		Enduring an ice bath ^d	
	<i>b</i>	95% CI	<i>b</i>	95% CI	<i>b</i>	95% CI	<i>b</i>	95% CI
Intercept	6.23**	[5.98, 6.48]	6.07**	[5.89, 6.26]	5.52**	[5.28, 5.77]	5.49**	[5.23, 5.75]
Difference Index	-0.41**	[-.52, -.29]	-0.72**	[-.80, -.64]	-0.53**	[-.63, -.43]	-0.39**	[-.52, -.27]
Replacement Ordeal Unpleasantness	0.04**	[.01, .08]	0.03**	[.01, .05]	0.05**	[.03, .08]	0.06**	[.02, .09]
Difference Index × Replacement Ordeal Unpleasantness	-0.01**	[-.02, -.01]	-0.02**	[-.03, -.01]	-0.01	[-.02, .01]	-0.01	[-.03, .01]

^a $F_{3,173} = 24.28^{***}, R^2 = .296^{**}$. ^b $F_{3,172} = 103.10^{***}, R^2 = .643^{**}$. ^c $F_{3,174} = 44.69^{***}, R^2 = .435^{**}$. ^d $F_{3,174} = 16.70^{***}, R^2 = .225^{**}$.
* $p < .05$. ** $p < .01$. *** $p < .001$.

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$p < .001$ (Table 3) and being paddled, $t(173) = -2.94$, $p = .004$ (Table 3). For these ordeals, individuals with a low Difference Index ($-1 SD$) did indeed evidence a larger positive relationship between their constructed replacements and their preferred level of dysphoria (e.g., Figure 7). Individuals with an average Difference Index, in contrast, evidenced a less positive relationship, and individuals with a large Difference Index ($+1 SD$) evidenced a negative relationship.

We believe that these findings may reflect a key framing issue: There is a difference between making a change to an induction process *where all other elements are assumed to be held constant* and making a change without this assumption. Fungible Dysphoria predicts a preference for matching dysphoria at the level of the individual ordeal only in the first circumstance. In the latter, there is little need to care about carefully matching the dysphoria of a replaced ordeal, because compensatory modifications can be made elsewhere in the induction. To put this

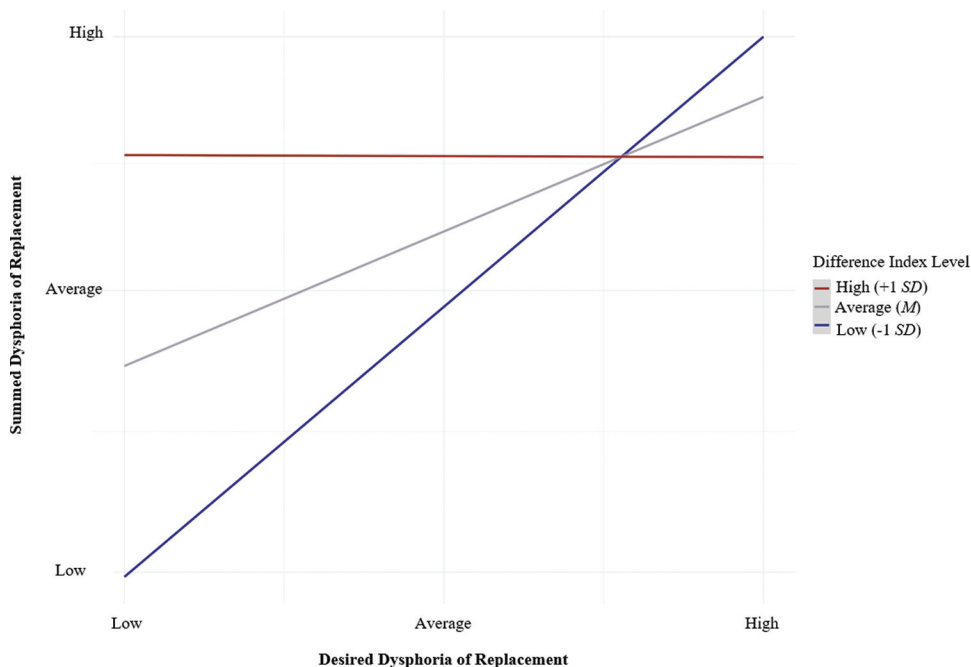
in the language of the model, the DYSPHORIA of other ordeals can always be adjusted upward or downward to reach TOTAL DYSPHORIA GOAL—a few more strikes with a paddle, a few less drinks, and so forth. The Difference Index may partially reflect the heterogeneity with which these contrasting implicit assumptions were made by participants as they completed the survey.

General Discussion

Making fine-grained predictions about hazing requires engaging with its relevant cognitive psychology and using models that are at least roughly compatible with real-world hazing regularities. Fungible Dysphoria is a partial, cognitive model of hazing implementation that is intended to meet these criteria. In this research report, we have provided preliminary evidence for some predictions of this model, in particular for a psychology that regards hazing ordeals as fungible *in principle*, and one that may be able to reason about dysphoria in a

Figure 7

Interaction of Desired Dysphoria of Replacement and Difference Index in Predicting Summed Dysphoria of Replacement for the Drinking Heavily Ordeal



Note. Both predictors were mean-centered before creating the interaction term. See the online article for the color version of this figure.

roughly additive manner. However, direct tests of whether dysphoria was the key continuum of intuitive fungibility revealed considerably more ambivalence and heterogeneity in participant responses. We suspect that these findings were partially a product of socially desirable responding (Study 1) and differing assumptions regarding induction changes (Study 2). In the latter case, post hoc analyses provided indirect evidence for this interpretation, but more direct tests are required for substantiation. Regardless, we believe that our analyses highlight the need for considering the interaction between ordeal-level and induction-level intuitions when testing hazing theories.

It is also possible that Fungible Dysphoria is incorrect and that an alternative cognitive model would directly predict our pattern of findings. However, it is not clear what that model would be—as noted in our Introduction, the question of cognitive ritual cost estimation has been largely unexplored. Approximately 18 years ago, Sosis et al. (2007) observed that “Estimating fitness costs of ritual activities is challenging for both researchers and ritual participants. It is unclear how individuals determine, for example, how much costlier a ritual back scar is than a week of isolation or a day of fasting” (p. 245). Since that time, researchers have used a variety of different cost operationalizations (e.g., Barker et al., 2019) and have done work on possible moderators of cost perception (Lang et al., 2025), but have not yet answered the foundational question of how ritual costs are estimated, compared, and combined. Although Fungible Dysphoria is not a totalizing theory of ritual costs, it is a testable and tractable entry point that starts with an important and well-recognized subset: hazing practices.

Because of Fungible Dysphoria’s potential to parsimoniously explain some observable regularities in hazing behavior, we suggest that it merits further refinement and experimental testing (see What Fungible Dysphoria Is Designed to Explain section). However, we caution that follow-up tests require careful attention to the validity-protective efforts described in our Method section. Declining to show the same concern with how, when, and where similar surveys are used may create comparatively higher levels of socially desirable responding. Even with our extensive mitigations, we believe we faced some degree of socially desirable responding. Furthermore, we grappled with the tension between using survey language that was blunt and clear (but could cause socially desirable responding) and using survey language that was

indirect and forgiving (but could invite alternative theoretical interpretations). One can find analogous tension in our use of a vignette pertaining to a hypothetical fraternity. Using a hypothetical fraternity helped mitigate issues of anonymity and social desirability but may have lessened participants’ attachment toward the specific ordeals at issue. Although improved surveys might assist with some of these concerns, their full resolution will likely require converging lines of evidence from different research methods (e.g., in-depth interviews). We continue to give these challenges considerable thought as we plan follow-up studies.

We have tested Fungible Dysphoria among United States college fraternities because they are highly prone to haze and tend to invest substantial effort in the process (e.g., Allan & Madden, 2008; Arnold, 1995; Cimino et al., 2024; Jones, 2004; Walker, 1967). As such, college fraternities may serve as model organizations for understanding hazing processes, in much the same way that model organisms are used for understanding lower-level processes (e.g., cell differentiation). Nonetheless, as with the use of a model organism, the use of a model organization carries with it important caveats. Fraternities, for example, have much in common with other men’s associations in industrialized and preindustrialized societies (e.g., Hayden, 2018; Massingill, 2023), but they have many differences as well. Predicting *which* differences will matter and *when* they will matter is not straightforward, and thus any cross-cultural or cross-organizational generalization must be made with caution (Cimino et al., 2019; Henrich et al., 2010).

The Utility of Fungible Dysphoria

Although researchers do not agree on the causes or consequences of hazing, they are broadly in agreement about the fact that hazing is complex and multicausal (e.g., Allan & Kerschner, 2020; Biddix et al., 2024; Cimino, 2011; Parks, 2022). We share in this consensus, and we emphasize that simple models like Fungible Dysphoria cannot (even in principle) act as complete descriptions of the cognitive processes involved in the implementation of hazing. We suggest, however, that starting with simple models has practical utility for researchers, as they make clearer predictions and are easier to build upon. Furthermore, models can have utility that extend beyond their strict predictions, particularly in prompting new interpretations or research questions. To be clear, the idea that the dysphoria of

hazing is in some way important to the phenomenon is not what is new or illuminating. Dysphoria has long been seen as a key mediator of hazing's distal effects, whatever those might be (e.g., group solidarity, dominance over newcomers). This intuition dates back to some of the earliest studies of the phenomenon (e.g., Whiting et al., 1958). But while many authors have sought to provide explanations of what dysphoria does to hazingees (e.g., Aronson & Mills, 1959; Cimino, 2013; Gill, 1996; Keating et al., 2005; Whitehouse, 1996), none have explained how such dysphoric practices are initially cognitively constructed. Fungible Dysphoria foregrounds this problem and thus prompts more attention to certain real-world regularities. For example, many lengthy hazing processes have more than a single vector of dysphoria—that is, they use a variety of ordeals with differing qualia. The aforementioned fraternity “Alpha” focused on nausea (from consumed substances) and muscle fatigue (from exercise). Once one adopts the perspective that these choices reflect intuitively quantified dysphoria exposures, such decisions make more sense. Specifically, Alpha was dealing with varying groups of inductees who proceeded through a weeks or months-long process. Using more than a single vector of dysphoria allowed them to (a) reduce the possibility of inductee habituation and (b) account for inductees who might be unusually resistant (or unusually susceptible) to a specific vector. Or consider a set of related issues: In lengthy hazing inductions, hazers have many options as to how dysphoria will be distributed across time. Hazers could make choices that (approximately) distribute dysphoria equally across events, or with linear increases, or in an s-curve, and so forth. Most real-world descriptions of hazing processes do not have sufficient detail to make strong inferences about the temporal distribution of dysphoria. However, there are hazing processes with dramatic and clearly noted temporal changes in dysphoria (e.g., Cimino, 2016; McCarl, 1976). This is most observable in college fraternities, who will often backload an immense amount of dysphoria into the final week of an induction, sometimes called “Hell Week” (e.g., Cimino, 2016; Stone, 1946; Walker, 1967). Although the decision to dramatically ramp up dysphoria at the end of an induction can be *accommodated* by most theories of hazing, we know of no theory that directly predicts this choice *a priori*, nor that would make a strong *a priori* prediction about the use of any specific distribution of dysphoria (e.g., linear, quadratic). We suggest that

how hazers regulate exposure to dysphoria across time constitutes a mostly neglected explicandum. Fungible Dysphoria invites attention to these and other important issues in the study of hazing.

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Received July 11, 2025

Revision received September 12, 2025

Accepted September 15, 2025 ■