# THE "ALL OF THE ABOVE" PROBLEM

## Confusion and Disempowerment Among Change-Seeking ESS Undergraduate Students

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## 1 The study

Students and faculty from Yale-NUS College conducted a multi-year survey of U.S. undergraduates enrolled in environmental studies and science (ESS) programs.

‣ 31 questions, 1200+ students, and 71 ESS programs randomly selected from a list of all U.S. programs compiled by the National Council of Science and Environment
‣ Assessed students' assumptions about social change and how they approach environmental problems
‣ Questions touched on topics ranging from the effectiveness of green consumption to the role of education, policies, value-change, and crises in driving environmental change

## 3 Undergraduates' voices

### Confusion and disempowerment

" This was definitely an interesting topic to discuss. There were many initial, surface thoughts, that seemed more or less clean cut. **But the more time I pondered, the more I realized how complicated the issue, methods, solutions, and enacting social change is.** It's also really easy to say one thing, but then do another.
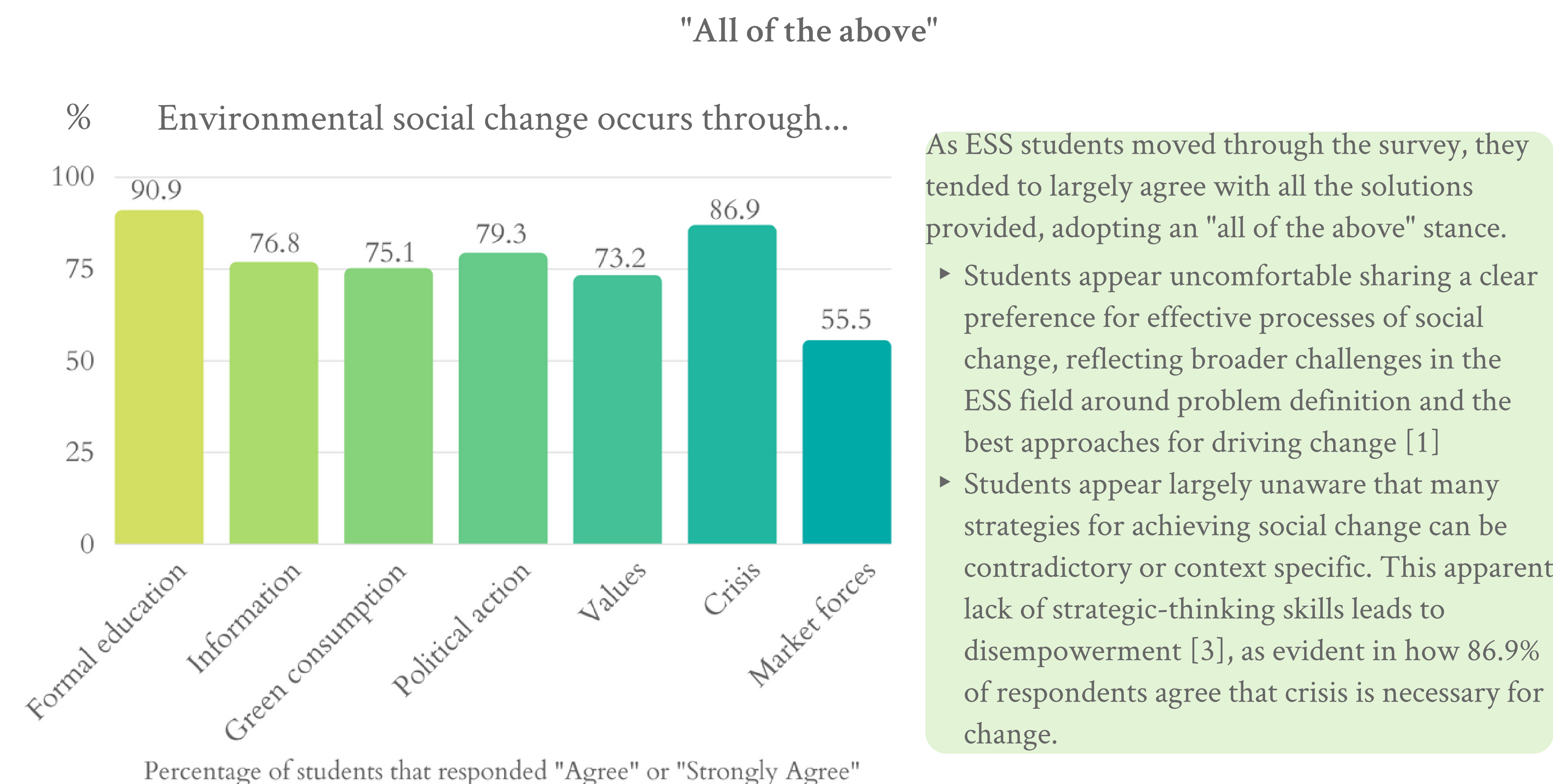
"It's hard to distinguish who will help us move toward a more sustainable, greener future. For the general populace, it can be difficult to get things done. Do we rely on corporations to move toward sustainable practices? Should we hope for the demise of oil and gas companies? Do we try and move politicians down an environmentally-conscious path? Do we need to spread awareness through media for significant change? **It looks both bleak and hopeful. It's frustrating.**

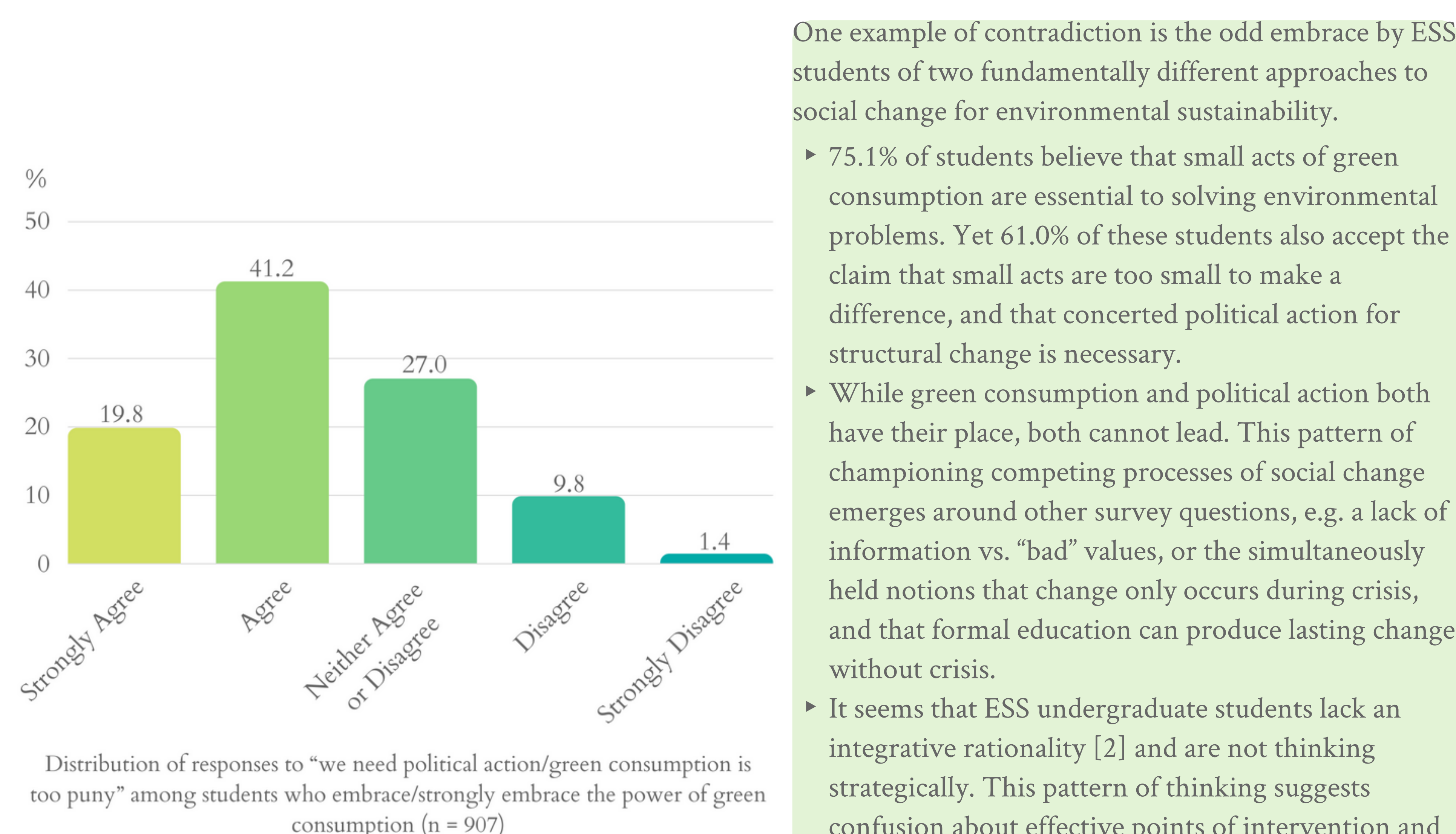### But also a handful of critical thinkers

We cannot analyze "people" or "society". These categories are too broad. **We need to focus on different sectors among society, and formulate the adequate strategies to empower** or mitigate their lifestyles.

I think it is also important to think about the voices that are not heard in these types of rhetoric ... **It is also important to think about the disconnects and connects at different scales**, where a certain type of policy could work in a small scale setting such as the state and city level, but may encounter problems at the national and international level. "

## 2 Surprising results

### "All of the above"



%  Environmental social change occurs through...

Percentage of students that responded "Agree" or "Strongly Agree"

As ESS students moved through the survey, they tended to largely agree with all the solutions provided, adopting an "all of the above" stance.

‣ Students appear uncomfortable sharing a clear preference for effective processes of social change, reflecting broader challenges in the ESS field around problem definition and the best approaches for driving change [1]
‣ Students appear largely unaware that many strategies for achieving social change can be contradictory or context specific. This apparent lack of strategic-thinking skills leads to disempowerment [3], as evident in how 86.9% of respondents agree that crisis is necessary for change.

### Students contradict themselves



Distribution of responses to "we need political action/green consumption is too puny" among students who embrace/strongly embrace the power of green consumption (n = 907)

One example of contradiction is the odd embrace by ESS students of two fundamentally different approaches to social change for environmental sustainability.

‣ 75.1% of students believe that small acts of green consumption are essential to solving environmental problems. Yet 61.0% of these students also accept the claim that small acts are too small to make a difference, and that concerted political action for structural change is necessary.
‣ While green consumption and political action both have their place, both cannot lead. This pattern of championing competing processes of social change emerges around other survey questions, e.g. a lack of information vs. "bad" values, or the simultaneously held notions that change only occurs during crisis, and that formal education can produce lasting change without crisis.
‣ It seems that ESS undergraduate students lack an integrative rationality [2] and are not thinking strategically. This pattern of thinking suggests confusion about effective points of intervention and change.
‣ We caution that this mindset will produce dissonance and confusion when ESS students leave college and begin to promote solutions in their professional lives

## 4 Making sense of the data from an undergraduate perspective

As ESS undergraduates, we understand how students may be overwhelmed and compelled to agree with the solutions presented to us. We hypothesize that this confusion and disempowerment arises from a lack of integration between the disparate courses offered in the ESS curriculum.

‣ Courses under different professors typically celebrate different and sometimes contradictory understandings of key processes and drivers of social change (e.g. elite-driven policy change vs. public mobilization vs. technocratic and market solutions vs. cultural change through the arts and humanities)
‣ Students are introduced to each theory separately, and the theories make sense to us in the contexts in which they are taught. Students thus tend to agree with all of them.
‣ There is often little space in the current curriculum to integrate these competing perspectives, or understand when to apply them effectively
‣ Students are left to process and contextualize these ideas on their own [3]. Our results suggest that this crucial integration does not occur with sufficient power or effect.

## 5 A persistent problem

These challenges of integration, clarity, and student empowerment are not new, and appear to persist.

‣ In 1998, Soule and Press [4], among others, highlighted the dangers of "multi-disciplinary illiteracy" in ESS programs
‣ In 2011, scholars noted that ESS programs continued to be fragmented with ambiguous goals and poorly rationalized curricular, producing students with "trained incapacities" [1]
‣ Our results and experiences as undergraduate students reveal that an unexamined multiplicity of social change ideas result in confusion and disempowerment among change-seeking students. Rather than producing students with strategic problem-solving skills, ESS programs yield students who struggle to reconcile contradictory theories of social change.

References
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