

Graduating into a global pandemic: the experiences of Chemistry and Chemical Engineering graduates

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The role of knowledge in graduates' lives

- Debates around how important the knowledge that students engage with in their degrees is in their future lives;
- HE about a personal commitment to knowledge (sacred) vs HE about employability (profane) (cf. Bernstein 2000);
- In this presentation, focus on graduates' perceptions of the importance of the knowledge they gained at University.

Understanding Knowledge and Student Agency (UKSA) Project 2015-2019

- Longitudinal study of students studying Chemistry and Chemical Engineering over the 3 or 4 years of their undergraduate degree in 12 departments in England, South Africa and US;
- Interviews with around 10 case study students per department in each year of their degree.

Graduate Experiences of Employability and Knowledge (GEEK) Project 2020-2023

- Continuing to follow the same students (now mainly graduates);
- Looking at how they draw on the knowledge and experiences at university in their later lives;
- For this presentation, I will focus on the students who studied Chemistry in England and South Africa (n=30).

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International Research Team

UK Team: *Paul Ashwin, Jan McArthur, Kayleigh Rosewell, Dee Daghish.*

South Africa Team: *Reneé Smit, Margaret Blackie, Ashish Agrawal.*

US Team: *Jenni Case, Nicole Pitterson, Alaa Abdalla, Benjamin Goldschneider.*

Students' personal projects in their first year

- Finding out what I can do with my subject;
- Personal development through my subject;
- Becoming a professional in the area of my subject;
- Becoming another kind of professional;
- Getting a job/starting a business.

In most cases these projects remained stable over the course of their degrees and after graduation.

Graduating into a pandemic

- Most graduates (n=18) engaged in further study (Honours, Masters, Teacher Training, PhDs);
- Of those who are working (n=11), 7 are mostly professional jobs and 4 in non-graduate roles that they see as temporary;
- One graduate was unemployed as they were shielding from Covid-19;
- Personally affected by the pandemic but, for most graduates, it did not appear to have impacted on achieving their personal projects;
- However, a significant impact on a small number of graduates.

Perceptions of importance of Chemistry knowledge

In these early days post-graduation:

- Graduates who were clear about the role of knowledge in their personal projects as students, tended to describe it as a very important way of understanding and interrogating the world;
- Graduates who were not clear about the role of knowledge, tended to describe generic skills they gained from studying chemistry. These graduates appeared to be less clear about their future trajectories.

When I studied chemistry I thought it would just literally be, I will go into a job, I can write reports and that's it. But it has actually affected [me] a whole lot more. It's ended up benefiting me in more than just work, but just in general life, you just know things. And because you know something you can draw the line between two dots, if that makes sense? ... You can actually go to papers and know how to read scientific information or scientific journals, without having someone translate them for you, and sometimes translate them incorrectly. But you don't know that if you've only been exposed to what's been told to you, you might be misinformed. Not by anyone's fault or by any malicious means, but that's how things get translated. Some things are lost in translation. It's that ability to just be exposed to it and then it's useful for the rest of your life, I would hope.

(Hayden, Graduate from Europium, Technician)

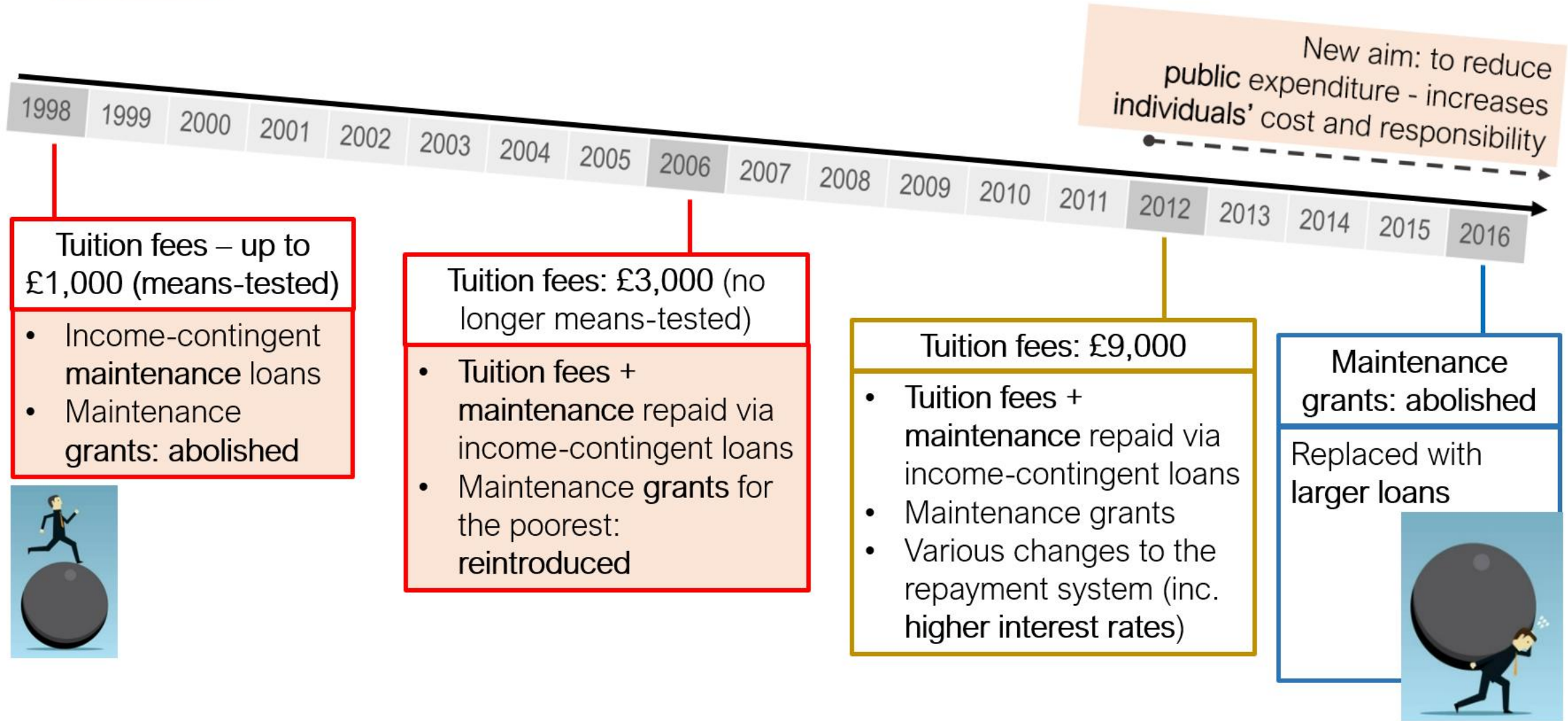
Tentative conclusions

- Students/graduates value academic knowledge when they see what role it plays in achieving their personal projects;
- No sense that a focus on employment reduces graduates' commitment to knowledge;
- Not about 'sacred' vs 'profane' but how the 'sacred' plays a role in the 'profane'.

Graduates' responses to student loans in England: 'it's me, not you'

Prof. Claire Callender and Dr. Susila Davis
UCL Institute of Education
CGHE Conference | 25 May 2022

Each funding reform adds to the burden on student loan debt



In England today...

- £ All **but the wealthiest students** have to take out student loans.
- £ More students than ever take out student loans
- £ Students borrowing more money than ever before and **graduating with higher levels of student debt**
- £ Graduates will be repaying loans **most of their working lives**

	Tuition fee loans	Maintenance loans
2019/20	95% of undergraduates	91% of undergraduates

- **£45,900** of debt on average at graduation

Methods: In depth interviews

Sample of 98 graduates:

- 48 paid fees of £3,000
- 50 paid fees of £9,000

Semi structured interviews
via telephone on...

Coding and analysis in
NVivo in two stages

- Respondents selected based on broad demographic targets
- Oversampled low SES and non-white graduates

- graduates' attitudes towards their student loans
- the advantages and disadvantages of loans and their features
- the influence of student loans on their lives
- reflections on using a loan-based system to finance undergraduate study

- Inductive
- Axial (Boeije, 2010; Saldaña, 2016)

Student loans and symbolic violence

Harris, Vigurs and Jones' (2020) conceptualise student loans as **symbolic violence** where:

“**two unequal agents**, or groups of agents, contrive to repress the agent, or groups of agents, that have lesser structural power (Bourdieu & Passeron, 1977 p. 4). The notion specifically captures the way in which people play a role in reproducing their own subordination through the **gradual internalisation** and **acceptance** of those ideas and structures that tend to subordinate them (Connolly & Healy, 2004 p. 15).” (Harris, Vigurs and Jones, 2020: 133) [present authors' emphasis]

Symbolic violence: 'it's me, not you'.

- “**Gentle, invisible violence**” – such as “trust, obligation, personal loyalty, hospitality, gifts, debts” (Bourdieu, 1990: 127) – where unequal power imposes certain meanings onto actions, behaviours and **capital without the individual realising** (Bourdieu, 1990; Bourdieu & Passeron, 1977). Goal of symbolic violence = **misrecognition** ⇒ to **persuade** the **dominated** to “**embrace the interests**” of, and **trust the dominant group** – by “**constructing parameters for rational action**” that make it **difficult or impossible** to even **consider life outside** of these **limited parameters** (Woolford, 2004: 118)
- The individual seems like a ‘**willing accomplice**’ because they see value in acquiring certain capital. Student loan borrowers “enter into a contract with their **state lenders** to gain qualifications that they often regard as prerequisite for their career advancement or personal growth (Harrison, Vigurs and Jones, 2020: 133), and become **complicit in their indebtedness** (Bourdieu & Wacquant, 1992)

Symbolic violence: 'it's me, not you'.

Main signal: Onus is on the **individual**

- 'Misrecognition' of loans or state lender's intentions as a 'help' or 'support', leading to 'indebtedness'.
Example 1: **Trusting and submitting to the system** without question.
Example 2: 'Grateful' to participate in HE through loans, sometimes without understanding the full implications until later. Becoming a **willing accomplice and complicit in their indebtedness**.

Example statements

- "The fact that **[the Student Loans Company] did lend me the money...it was quite a substantial amount of money, so I guess I feel trust**"
- "I don't sort of like question the [amount owed]. . . Because you **class it as something almost government-related**, so you sort of **trust the figure**, I suppose."
- "[Student loans] were amazing because it **enabled people in a similar situation to me to be able to go to university without having to worry**"; "I'm **grateful** for it"; "[Loans] enabled me to get to sort of achieve the job and career that I enjoy . . . It was **worth the debt**".

Symbolic violence: 'it's me, not you'.

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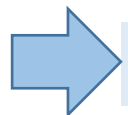
- Individual **internalisation (self blame)** of the impact of student loans on respondents' lives as their fault. Or feelings of **shame or embarrassment** if going to university and taking out loans hadn't led to something 'useful' or they didn't realise full implications of loans until later.
- **Individual acceptance** of loans in respondents' lives and **rationalisation**. Questioning the system either doesn't arise or is seen as too painful.

- "I was so young and **so naïve**, I used to get that £2500 every term and you'd pay it on your housing and then you'd go shopping and you didn't really have an awareness of that you had to pay this money back"
- "If I was upset with how much I was repaying, [SLC would say]: 'Too bad, that's what you agreed to at the beginning.' This is going to be **quite embarrassing** to say. . . when I was 17, applying for the student loan, I'm not sure if I read it all correctly or if I read it all properly"
- "I've already **come to terms** with [loan repayments]"; "I find myself somewhat **resigned** to [how much I owe]"
- "I just think [taking out loans] is **one of those things** that you just think 'that's **part of the life process**' and I guess you've **accepted** it before you've even received your total debt, before you finish university. So, I guess I was **mentally prepared**".

What else did we find?

Some of the more negative responses could not be characterised as ‘gentle’ or ‘hidden’. They had more **visceral attributes** and signs of **recognition – as against misrecognition – that student loans weren’t as good as respondents had imagined originally**. This **additional and distinct** type of response manifested in graduates:

- **Identifying and being critical of** loan features that they initially didn’t understand or weren’t aware of (such as interest rates), but now have a negative impact on their lives as graduates
- **Questioning** the student **loan system and its structure** – e.g. who it really serves, the motivations behind the system, and loan features such as interest rates and tuition fee rates.



Indicating the emergence of: **structural violence**

Structural violence: it's you, not me'.

- Embedded structures, 'normal', '**everyday**', "**social arrangements and distributions of capital that put people and populations in [avoidable] harm's way**" (Montesanti and Thurston, 2015: 3). E.g. social mobility rhetoric masks structural inequality which produces "false promise of hope or 'cruel optimism' about future prospects" (McDowell et al, 2020: 1).
- **Acknowledges** the "interconnected and compounding violence" of systems e.g. health, education, political (Nandagiri, Coast and Strong, 2020: 84) and **inequality in the distribution of power** (Galtung, 1969) that threaten "**economic security, well-being, and dignity**" and **stifle people's opportunities** (Rootham and McDowell, 2017: 411).
- **Enables a "recognition of the violence** that is perpetuated" through "inequitable social institutions and economic restructuring", which produce and reinforce inequality. **Shifts attention away from individuals and onto systems or "those in power"** (Massé, 2007: 7) that put people in harm's way (Rootham and McDowell, 2017: 411). "Recognizing the operation of structural violence" necessitates asking painful questions about "how and why we tolerate it" (Du Nann Winter and Leighton, 2001: 3).

Structural violence: 'it's you, not me'.

Main signal: Onus is on **system / structures**

- **Realisation** of the **everyday social arrangements** that put people in **harm's way**, usually accompanied by **anger** or **dissatisfaction**. A recognition of the **false promises** and **initial optimism** that encouraged individuals to go to university and take out loans.

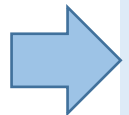
- “[Student loans] are **designed to get you in debt**. . . It’s trying to help vulnerable people. . . in that you don’t have to pay it back, maybe, for your whole life; but then again, there’s still **interest** and you’re still **throwing money away each month**, so it’s still sort of like **greedy**, I think, on the Student Loan Company’s side.”
- “[I feel] **scepticism**. . . the main goal to achieve is . . . to get a qualification, you know. . . Once you’ve achieved that, **it doesn’t necessarily mean that because you’ve got these honours or you’ve got these certificates, that you’re guaranteed a job**. It’s far from that. It’s **not all happy-happy at the end of it...**”

Structural violence: 'it's you, not me'.

Main signal: Onus is on **system / structures**

- **Acknowledgement** by graduates that student loans **stifle their opportunities or potential.**

- “Being contacted by Student Loans Company, that probably **exacerbated feelings** of, ‘all right, **so I should get a job that’s going to earn me enough to pay back at the threshold.**’ That’s the expectation. And that’s **reinforced by government**”
- “I was **driven** in the end **not to choose to do a master’s** because I was **aware of the considerable debt** I had and not wanting to increase that further”
- “I’m currently **saving for a deposit** on a house and these savings contributions are somewhat **hindered** because unfortunately, my monthly income has to be set aside to repay that loan. . . [which] does **delay the eventual outcome of the house purchase**”.



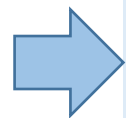
Impact on housing: Graduates **who did not borrow for HE** were more likely to own their home and less likely to rent or live with their parents (de Gayardon, Callender and DesJardins, 2021: 1).

Structural violence: 'it's you, not me'.

Main signal: Onus is on **system / structures**

- **Recognition of implications** of participating in HE through loans and **questioning the system** rather than blaming individual selves. **Less acceptance of the status quo** and **more awareness of the structures that perpetuate the system** or how things are seen or accepted / assumed as 'common sense'.

- "I just thought, 'How ridiculous? Why have they even put the prices up of studying if they're not going to recoup the money anyway?' . . . If I was only paying £3000 a year, I might not even have had to have taken out a loan."
- "[University] shouldn't be a 'pay to play' system"
- "We live in a world where people say being a sheep is good... like by doing what's the norm... If you know someone that's paid their house off within 10 years, you think, 'Wow.' . . . And I think that's the thing the same with the student loan: it's the norm to have it; it's **not frowned upon anymore because it's uncontrollable**".



Negative features of loans: Graduates **recognised** high tuition fees, levels of debt, and interest rates (Callender and de Gayardon, 2021)

Implications and conclusions (1)

- We have **moved beyond** exploring only **symbolic violence** in relation to student loans.
- We focused on **graduates' lived experiences** of the loan system and repayments rather than those of current students.
- This paved the way for the emergence of **structural violence in addition to symbolic violence**.
- **Symbolic** and **structural violence** shed light on the **relationship** between the **graduate borrower** and the **state lender**.
- Some graduates **willingly or unknowingly and uncritically internalise government rhetoric about student loans**, seeing loan debt as just a **fact of life**. Others are **more resistant** to the rhetoric and are critical of it.
- Our analysis helps **expose the assumptions** that **policy makers** make about student loans and about how student loans effect graduates.
- It exposes how the **state lures students and graduates** into debt to **pay for upward social mobility** and **greater social and economic opportunities**.

Implications and conclusions (2)

- **Symbolic violence** of loans **takes off the political agenda** any consideration of alternative ways of funding HE, and concerns about the burden of student loan debt.
- These **relationships between the borrower and lender matter** as the government shifts yet more of the costs of higher education and the burden of student loan debt onto graduates' shoulders and away from the state.

Thank you!

Questions and thoughts...

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