

OCR English Literature GCSE

An Inspector Calls: Character Profile

Eric Birling

This work by [PMT Education](https://www.pmt.education) is licensed under [CC BY-NC-ND 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)



First Impressions

Character in context

It's crucial to have an understanding of the character Eric Birling, to have a greater sense of the message of the play *An Inspector Calls*.

Eric is the son of Mr and Mrs Birling and Sheila is his sister. Eric is employed by his father Birling and Co. and is instantly portrayed as having a **drinking habit** by Priestley (perhaps attempting to drown his sorrows).

Drawn by
Sarah
Stubington



The **stage directions** dictate that Eric is in his “**early twenties, not quite at ease, half shy, half assertive**” and demonstrates his **naivety**. Priestley uses Eric as **symbolic of redemption**; no matter the **atrocities** committed in the past, he has the capacity to **change and improve**.

- Priestley presents Eric in a **sympathetic light** through Eric's opposition to Mr Birling's **capitalist and individualistic** attitudes.
- The audience's feeling of sympathy for Eric is increased by the evident lack of a good role model as a father.
- Priestley portrays society's norms as the reason for the **immoral behaviour** of Eric (his rape of Eva) - he is simply following in the footsteps of other men.
- Eric is presented as **naive and ignorant** of the true extent of the suffering of the **lower-class**.
- **Remorse and regret** is clearly shown by Eric while he **accepts responsibility** for his actions, yet he rejects taking sole responsibility for her **suicide**.
- The character of Eric can be seen as a **source of optimism**; anyone can change for the better.

Innately moral

Priestley portrays Eric Birling as able to make the distinction between right and wrong throughout the play. It is important to understand why Priestley presents Eric in this **favourable fashion**.

Eric's emotional response to the news of Eva's death shows that he has morals. Priestley demonstrates this through the **stage directions** “**[involuntarily] My God!**”.

- Priestley's use of the **adverb** “**involuntarily**” demonstrates the **moral nature** of Eric as he could not suppress his **emotional reaction**; it is involuntary.
- Eric would not choose to reveal his emotions within a patriarchal society which **condemns feminine traits** such as **excessive emotion** as the disorder “**hysteria**”.

Here, Priestley attempts to convey the message that emotion is human and thus necessary for society to improve. Furthermore, he wants the audience to react like Eric did and feel instinctively emotional.

Eric's reaction to her death is contrasted with Mr Birling's who Priestley describes in the **stage directions** as “**rather impatiently**” and dismissing her suicide with “**yes yes. Horrible business**”.



Here, Priestley makes the distinction between the older and younger generation and their differing attitudes to the lower classes.

Socialist views

Priestley portrays Eric to have personal views which are inherently **socialist**. It is important to consider why Priestley exhibits Eric as possessing these views (despite his **atrocious** act of raping Eva).



<https://www.bbc.co.uk/programmes/profiles/5MqqrFYCZvS7s9HDJw2Fb0R/eric-birling>

- Eric condemns his father's **capitalist** view of his workers and challenges this through the question ***"why shouldn't they try for higher wages?"***.
 - It is clear that Eric is able to empathise with the **lower-classes** and can recognise the need for better workplace rights and the even more desperate need of ridding society of the practice of **exploiting labourers**.
- Priestley presents Eric, with the **capacity for empathy and emotion**, which therefore separates him (and Sheila) from the other characters, who are unable to experience such emotions.
 - This is done to demonstrate Eric as **morally superior** and as a character, which the audience should align themselves with.

Aware of hypocrisy and corruption

The upper-class' internal **corruption** and **hypocrisy** is acknowledged by Eric, explicitly, throughout the play. It is important to understand why Priestley demonstrates Eric as not completely **naive**, but aware of levels of corruption in society.

- Eric initially sees Mr Birling's **hypocrisy** in the determination to achieve ***"lower costs and higher prices"***, yet, denying Eva and his employees a higher wage.
 - Eric exclaims his discontent with such **hypocrisy** as ***"why shouldn't they try for higher wages"*** as ***"we try for the highest possible prices"***.
- He realises that there is no **meritocracy** and that a ***"good worker"*** does not constitute better treatment, but that **capitalism** exists fundamentally to exploit workers and create profit.
- Eric recognises how his father is **hypocritical** in hiding his views from Inspector as he ***"[Laughs bitterly] I didn't notice you told him that it's every man for himself"***.
 - Eric lets out a ***"bitter"*** laugh because he realises Mr Birling's **hypocrisy**, yet, there is no humour to be found in the **moraleless capitalism**, which his father abides by.

Reluctantly conforms to the class system

Priestley portrays Eric as too weak to be able to stand up to the way his father treats the lower classes. Eric knows and understands it's **immoral**, wrong and ridiculous but sits by and **conforms**. It is important to understand why Priestley presents Eric as continuing to abide by the social conventions of exploiting those in the lower-classes and failing to meaningfully oppose this system.

Exam tip -

For visual learners, see Figure 1 at the bottom of the document for a diagram of the social hierarchy



Priestley demonstrates Eric's discomfort towards his family's lifestyle and privilege, through the **stage directions** "**not quite at ease**". These **foreshadow** Eric's attitude throughout the entire play; he is not quite at ease with his father's behaviour, nor is he quite at ease with his own.

Eric is eager to be done with talk of their engagement as he realises the ridiculousness of the toasts for a marriage which is merely a **transaction**. Even though he disapproves, he is portrayed as powerless to do anything. This is evident as Eric interrupts his father's engagement speech and protests "**[not too rudely] Well don't do any (speechmaking). We'll drink to their health and have done with it.**"

→ Although Eric interrupts through the **stage directions**, he does it "**[not too rudely]**" as he doesn't have the power to challenge his father directly yet is not quite at ease with the **capitalist** purpose of his sister's marriage.

Anyone is capable of immorality

Initially Eric is portrayed as a positive character who has morals, he disapproves of Mr Birling's individualistic **business rhetoric** (speech). However, the revelation of Eric's rape of Eva demonstrates that sin is not beyond anyone. It is important to consider why Eric is exhibited in this way by Priestley.

- Eric acknowledges that Mr Birling's "**respectable friends**", such as "**alderman Meggerty**" are acting immorally, but Eric is too weak to stand up for his own beliefs. Therefore, he ends up going along and copying them.
- Arguably, alcohol is Eric's response and coping mechanism to the **hypocrisy** and **materialism** of his family.
 - There are also **lower-class connotations of alcoholism**.
- Through suggesting that it is Eric's perceived **lack of influence**, which **precludes** (prevents) him from making change, Priestley teaches that people need to stand up for reform regardless of who they are in society.
 - Therefore, everyone should unite in dissent, rather than disregard their morals (otherwise they may end up accepting what's wrong like Eric did).
 - Even Eva, who is the exemplar of morality, is forced to **immoral prostitution** out of desperation.

Why is Eric like this?

The audience's sympathy for Eric is maintained by Priestley throughout the play in an attempt to keep him **redeemable**. We are shown potential reasons for Eric's behaviour which can allow the audience to sympathise with him. Priestley attempts to encourage a **positive perception** of Eric through a **deflection of blame** onto his parents and the society in which he lives.

Parenting

Eric's childhood has been within a "**not cosy and homelike**" environment. Instead he has been raised by a "**cold woman**" and a father who is "**not the kind of father a chap could go to when he's in trouble**". Priestley therefore encourages the audience to view Eric as the product of poor parenting. Through denying **Eric care or compassion** throughout his childhood, Eric's parents have **condemned** him to treating others with the same **callousness** (cruel disregard for others) by offering no support, they have **stunted his moral development**.



Priestley preceded the Inspector's arrival with a **series of lectures** delivered from Mr Birling to Eric and Gerald. Considering the **capitalist, individualistic** and **patriarchal content** of Mr Birling's speech, perhaps Priestley uses this to show the audience that Eric is being shaped by the values of his father. He has been taught to disrespect women and disregard the lower-classes therefore

Normal male behaviour

Priestley provides a legitimate explanation for Eric's **immoral actions**. We are shown by Gerald that "**respectable**" men use prostitutes therefore Eric has learnt to associate prostitution with the normal behaviour of the upper-class. His behaviour is therefore **normalised**.

- **Contextually**, Eric's behaviour can also **be excused** (to a certain degree) as, within 1912 society, women were perceived as being inferior to men in all aspects of life. This meant their value was measured through the **utility of their bodies** and **sexual appeal**.

Unreliable narration

Eric is left to tell the story about what he did to Eva which means his narration is likely to be **unreliable**. His **biased** telling of the story (to make himself look less bad) enables the audience to take what they want from the story and ignore anything they don't want to believe.

- He says "**and that's when it happened**". The use of the **pronoun "it"** allows the audience members to fill in the gaps about what 'it' is that Eric did to Eva. Thus, Priestley manipulates the audience into perceiving Eric as **redeemable** as they **retain their own opinion** of whether he actually did rape Eva
 - This implies that it is Priestley's intention for Eric to be favoured by the audience and serve as a **medium for socialist ideas** and **converted capitalists**.
- Priestley uses the **euphemistic phrase "that state when a chap easily turns nasty"** as a substitute for Eric's admittance of being drunk.
 - Priestley's choice of colloquial language **normalises** Eric's lack of restraint which implies that it's the alcohol which caused him to act in that way, not his lack of morals. This prompts the question of whether he would have abused Eva if he was sober.

Throughout the play the audience is encouraged to consider whether Eric's actions are really **reflective of his true character**, or whether society has **conditioned** him to behave in this manner.



<https://theconsultingdetectivesblog.com/2015/09/08/an-inspector-calls-promotional-pictures/>



Final impressions

Genuine regret

Eric is portrayed by Priestley as **repentant and remorseful** for his **immoral** actions towards Eva. It is important to understand why Priestley presents Eric as **experiencing regret**.

- Eric immediately recalls his actions as “**yes I remember** - “. Priestley does this to demonstrate Eric’s authentic regret, as he still thinks about Eva and the impact of his actions.
- Priestley’s **linguistic** use of **euphemistic phrases and dramatic exit** shows that Eric feels guilty and doesn’t want to think about what he did, as he’s ashamed of his actions.
- Priestley uses the **third-person** when Eric is recalling the events of his relationship with Eva, such as “**when a chap**”. This allows Eric to **disassociate himself** from his cruel actions.

Limited responsibility

Priestley portrays Eric as only **partially accepting responsibility** for the death of Eva Smith. It is important to understand why Priestley presents Eric as **failing to accept full responsibility** for his actions and feel **sufficiently guilty**.

Priestley reinforces Eric’s **evasion of responsibility** as he excuses his behaviour by comparing his **exploitation of Eva** to the use of prostitutes by Mr Birling’s “**respectable friends**”.

- Here, Eric implies that he is not **responsible** for how he acted, due to a lack of good role models to follow.

“**that state when a chap easily turns nasty**”. Here, Eric insinuates that **alcohol-fuelled** violence is a state familiar to all men and is therefore acceptable. Priestley’s use of the **colloquial noun** “**chap**” suggests Eric is **trivialising** the situation and doesn’t feel **guilty** to a great extent.

Eric’s attempts to **divert blame** away from himself – be it the influence of **immoral men** or his own **intoxication** – causes him to be perceived as similar to the older generation as he is **avoiding responsibility**.

- It is this avoidance of **responsibility**, which Priestley places the blame for society’s problems on.
- Priestley attempts to cure this with the character of the Inspector, which causes Eric to be consequently depicted as **unsympathetically**.



Relationships with other characters

Mr Birling

Priestley presents Eric as in **direct opposition** to Mr Birling ideologically. It is important to consider why Priestley portrays this **father-son relationship as opposing**.

Eric consistently challenges and opposes Mr Birling's opinions and capitalist attitudes.

- Eric raises the question of "**what about war**", which is opposed by Mr Birling who is staunchly confident in "**the Germans don't want war**".
- Mr Birling's proud claim of striving for "**lower costs and higher prices**" is rejected by Eric, who questions "**why shouldn't they try for higher prices**" and that she simply "**can't go and work somewhere else**".
- Mr Birling's **maxim** (rule of conduct): "**If you don't come down sharply on some of these people, they'd soon be asking for the earth**", is rejected by Eric as "**I think it was a damn shame (that Eva died)**" and that you "**can't blame her**".

Priestley places these characters in **juxtaposition** to mirror the conflict between **capitalism and socialism**. Eric's opinions are **socialist** by nature – he is standing up for worker's rights and exposing the **corruption and exploitation of capitalism**.

- Priestley's portrayal of Mr Birling as dislikeable is achieved through playing on Mr Birling's **ignorance surrounding world affairs** (e.g. the impending world war) through **dramatic irony**.
 - His lack of emotion towards Eva's death (dismissing it "**rather impatiently**") also contributes to his abhorrent presentation.
 - By standing in opposition to his father, Eric is viewed favourably by the audience.

Mrs Birling - the uncaring mother

Priestley portrays Eric as lacking a **caring** and maternal mother. Mrs Birling has greater concern for the way in which Eric and Sheila **present themselves** as upper-class citizens, rather than their own wellbeing. It is important to consider why Priestley portrays Mrs Birling as **indifferent** to Eric's **welfare**.

Mrs Birling, inadvertently, diverts blame onto Eric for Eva's suicide as "**He should be made an example of. If the girl's death is due to anybody, then it's due to him**".

- However, upon realising that Eric is indeed Eva's partner she refuses to accept this as the truth: "**Eric, I can't believe it. There must be some mistake.**"
- Mrs Birling refuses this fact as it **jeopardises** the **reputation** of the Birling family, which she values over her son's loss of a child.
- Eric's outrage towards his mother, who is similarly **unsympathetic** and fails to even apologise, is demonstrated by Priestley: "**Then - you killed her... and the child she'd have had too – my child – your own Grandchild – you killed them both – damn you, damn you.**" and "**You don't understand anything. You never did. You never even tried.**"



Mrs Birling expresses her disappointment in her son as “***Eric I’m absolutely ashamed of you***”. Here, it is clear Mrs Birling still hasn’t accepted any **responsibility** and more importantly Mrs Birling shows no **remorse**.

- It is important to note that Mrs Birling only expresses this after the Inspector’s leave, as perhaps, she knew that he would object to her saying this.
- Eric responds to this with “***well, I don’t blame you. But don’t forget I’m ashamed of you as well - yes both of you***”. This shows that Eric has, conversely, accepted responsibility as “***I don’t blame you*** (Mrs Birling)” for being “***ashamed***”.
- Mrs Birling remains **unsympathetic** towards Eric despite denying aid to her **to-be-granddaughter’s mother** and effectively providing the final blow to Eva before committing suicide.

Sheila

Both Eric and Sheila are portrayed as appreciating the importance of the Inspector’s message. In aligning the two characters, Priestley is clearly showing the difference between the younger generation and the older generation in their attitudes towards others.

- Both of the **younger-generation** characters are in opposition (or at least appear to be) to the **older-generation’s beliefs of capitalism and individualistic tendencies**.
- Through this, Priestley suggests that people must work together despite their differences for the shared aim of **bettering society**.
 - Even if their ideas are different, it is **imperative** to still work together in order to reach this goal.
- The Inspector acknowledges their age as making them “***more impressionable***”, to both the **ideologies** of their parents and the ideology of **socialism** that the Inspector **propagates** (spreading).



<https://theconsultingdetectivesblog.com/2015/09/08/an-inspector-calls-promotional-pictures/>

Does he change as much as Sheila?

Eric’s agreement with some **socialist ideas** is not to the same extent as Sheila’s comprehensive **conversion to socialist ideology**. It is important to consider if Eric’s favouring of the Inspector is merely due to Eric’s agreeable nature and why Priestley portrays **Eric’s socialist ideas** as being weak.

Priestley conveys this **ambivalence** (uncertainty) in Eric’s mindset through a heightened emotional state as he acts erratically in the **stage directions** changing quickly from “***[shouting]***” to “***[quietly]***”.



- Perhaps Eric has been **emotionally overwhelmed** by the Inspector and is, therefore, not speaking seriously when he supports the inspectors view. Instead, it is a **superficial**, impulsive level of agreement.
- Arguably, Eric finds **moral sanctuary** in agreeing with the Inspector as it is easier to do this than to argue with him.

The influence of a lot of alcohol must also be taken into account, as **Eric's speech is tainted with intoxication** his degree of seriousness is thrown into doubt. This altered state of consciousness may lead to Eric not accepting **socialism** once sober and calm.

Priestley leaves the play on a **dramatic cliff-hanger**, leaving the audience to predict the characters' response to the second death of a mysterious girl.

- Maybe Priestley does this to **force the audience** to consider how they, themselves, would respond to the death and question whether their response would be **moral**. This will then reflect onto their own life decisions and prompt questions on how they live their lives.
- Priestley encourages the audience to consider the consequences of different attitudes held by different characters in the play.
- Arguably, he intends for the audience to compare their own attitudes to that of the characters in the play - causing the audience to view the **physical manifestations** of their own set of beliefs.

Eva

Priestley's portrayal of Eric's relationship with Eva goes against tradition, due to its **inter-class nature**. It is important to understand why Priestley deliberately chooses this affair to be **inter-class** and what **social impact** this has.

Eric's abuse of Eva and violence towards her is not explicitly revealed, as Eric uses **euphemisms** when referring to their relationship (and potential rape) such as "**that's when it happened**", "**I was in a state where a chap easily turns nasty**" and he "**threatened to make a row**". This deliberate use of **vague euphemistic language** hides the true extent of Eric's **immoral behaviour**.

Eric's **vague language implies** that it is likely to be rape as his **euphemisms** reveal his guilt and desire to avoid facing what he did. However, this doubt over what Eric actually did allows Eric to **remain redeemable**, in the eye of the audience. He can be used by Priestley as an example for the audience of accepting **greater social responsibility** and as evidence that they can change their ways to make up for their **past immorality**.

Their **sexual relationship** takes an unconventional turn as Eva's role evolves, essentially from partners to a more **maternal relationship** as "**In a way she treated me – as if I were a kid. Though I was nearly as old as she was.**" Eva realises Eric's **immaturity and ignorance** to the **societal conventions** of 1912 British society, which essentially forbids **inter-class relationships**. Therefore, she felt obliged to "**refuse (Eric's stolen) money**" as she did not belong to Eric's class and their relationship could not be public. This refusal of Eric's money contradicts the **lower-class**



stereotype of **immoral scavengers**, which Mrs Birling propagates as she exclaims “**as if a girl of that sort would ever refuse money**”.

Eric’s relationship with Eva

Eric’s treatment of Eva is **symbolic** of the abuse the working-class are subjugated to by the upper-class.

The Inspector’s “**line of enquiry**” finishes with Eric where his offence is shown to have pushed Eva over the edge, resulting in her suicide. Priestley makes Eric’s offence against Eva the most severe and least forgivable. The other characters abused Eva **indirectly** and therefore seem **less responsible** for her suicide. This is exemplified through Mrs Birling and Sheila using their **intangible influence** to cause Eva to lose her job and be **refused charity**, respectively. Then she was abused emotionally through removing their companionship.

Eric combines these offences in an offence that is **both physical and emotional** as he abuses Eva using his social influence and physically overpowers her. He uses physical force to gain entry into Eva’s house despite “**she didn’t want me to go in**”. Then Eric continues to emotionally harm Eva as he proceeds to “**turn nasty**”.

It is the combination of these wrongdoings that causes his actions to be perceived by the audience as **excessively immoral**. However, it is also this **explicit immorality** that offers hope for the audience. If Eric can change his ways and redeem himself, then there is a possibility for everyone in the audience to do the same.

Possible ‘Topic Sentences’

- Priestley uses Eric to reveal the inequality in society between men and women and the way in which the upper classes abuse their power.
- Priestley portrays Eric sympathetically as he is the opposite of Mr Birling and challenges his father’s claim of innocence.
- However, Eric does not initially show remorse, and this serves to reinforce Priestley’s development of him as an unsympathetic character.
- On the other hand, Priestley could be using Eric’s seemingly normal outward appearance to make a point about his actions being due to the influence of the society the Inspector is so heavily critical about.

Exam tip -

A ‘Topic Sentence’ is the first sentence of your argument. This should convey the overall point you are making. It should reference Priestley explicitly and his ideas.

Exam tip -

Topic sentences should always link back to the question at hand. Also, try to link these sentences together (e.g. discuss the initial, transitional and final portrayals of a character).



Eric quote bank by theme

Theme	Quote	Analysis
Responsibility	<i>“you killed her – and the child...your own grandchild”</i>	<p>Priestley encourages the audience to sympathise with Eric. Despite the Inspector’s attempts to enlighten the Birling family that they are all jointly responsible, Eric’s accusation of blame upon his mother is tantamount (equivalent) to Mrs Birling’s blame of the “father”.</p> <p>By merely placing all the blame upon his mother, with “you killed her,” Eric attempts to absolve himself from any blame.</p>
	<i>“You don’t understand anything. You never did. You never even tried”</i>	<p>Eric continues to undermine himself as he berates his mother “You don’t understand anything. You never did. You never even tried”. Priestley’s use of repetition and hyperbole creates a parody of the sweeping statements we might expect a teenager to use in an argument with their parents.</p>
Gender inequality	<i>“[Suddenly guffaws] I don’t know - really. Suddenly I felt I just had to laugh.”</i>	<p>Priestley’s use of the stage directions to portray Eric as he “suddenly guffaws” occurs directly after Gerald tells Sheila that he will “be careful” after she has told him that she is suspicious of Gerald’s time away from her in the summer.</p> <p>Perhaps this sudden “guffaw” indicates that Eric knows that Gerald is routinely unfaithful. Eric would certainly see this first hand as they both attend the Palace Bar specifically with the intention of picking up women or prostitutes.</p>
	<i>“She wasn’t the usual sort”</i> <i>“She didn’t know what to do”</i>	<p>Priestley reveals Eric’s previous experiences with prostitutes, as Eva “wasn’t the usual sort”. The adjective “usual” implies that visiting prostitutes is the norm for Eric. Eric’s</p>





		<p>observation that “she didn’t know what to do” implies both that he is attracted to Eva’s innocence, and also that he might realise that she is a woman he can exploit because of her ignorance.</p>
	<p>“I hate these fat old tarts”</p>	<p>Eric’s proclamation of “I hate these fat old tarts” reveals his disgust at his own hypocrisy in frequenting the palace bar, looking for sex. Priestley implies, through Eric, that - for all men - it is a social norm to pay for sex.</p> <p>The upper-class’ use of prostitution symbolic of their exploitation of the female lower-class, who are the prostitutes that are abused by high-class men.</p>
Guilt	<p>“I insisted – it seems”</p>	<p>On Eric’s visit to Eva’s lodgings: “I insisted – it seems”. Priestley’s use of the verb “insisted” implies that Eric may have physically overwhelmed Eva’s resistance. Priestley’s use of the ambiguous verb phrase “it seems” reveals Eric’s attempt to forget his immoral actions, and distance himself from his guilt.</p>
	<p>“in that state when a chap easily turns nasty”</p>	<p>Priestley demonstrates Eric’s subconscious attempts to distance himself from his actions by switching from first person to third person as he refers to himself as “a chap” rather than ‘I’. Eric’s trivialisation of such violence of a possible rape, through the colloquial use of “a chap” is an attempt by Eric to soften the harshness of his actions.</p>
	<p>“I threatened to make a row”</p>	<p>Eric’s violent language, “I threatened”, is softened through the euphemistic use of “a row”. Priestley demonstrates Eric’s attempts to convince himself that his actions were to a lesser extent of immorality than they actually were.</p>



Morality	<p>“(Involuntarily) My God!”</p>	<p>Eric’s emotional response to the news of Eva’s death as Priestley demonstrates his innate rectitude (morality) through the stage directions. Priestley’s use of the adverb “involuntarily” demonstrates the moral nature of Eric as he could not suppress his emotional reaction; it is involuntary. Eric would not choose to reveal his emotions, within a patriarchal society which condemns feminine traits, such as excessive emotion.</p>
Capitalism vs Socialism // Class	<p>“[not too rudely] Well, don’t do any. We’ll drink to their health and have done with it.”</p>	<p>Eric is eager to be done with talk of their engagement as he realises the ridiculousness of the toasts for a marriage which is merely a transaction. Eric disapproves, however, he is powerless to do anything. This is aptly demonstrated by Priestley through the stage directions as Eric interrupts “[not too rudely]” as he doesn’t have the power to challenge his father directly yet is not quite at ease with the capitalist purpose of his sister’s marriage.</p>
	<p>“Why shouldn’t they try for higher wages?”</p> <p>“you said yourself she was a good worker”</p>	<p>Eric questions “why shouldn’t they try for higher wages?” as he believes that the capitalist system ought to be fair to both employers and employees. He puts forward a moral form of capitalism, pointing out to Birling, “you said yourself she was a good worker”, implying that she should be financially rewarded for this.</p>

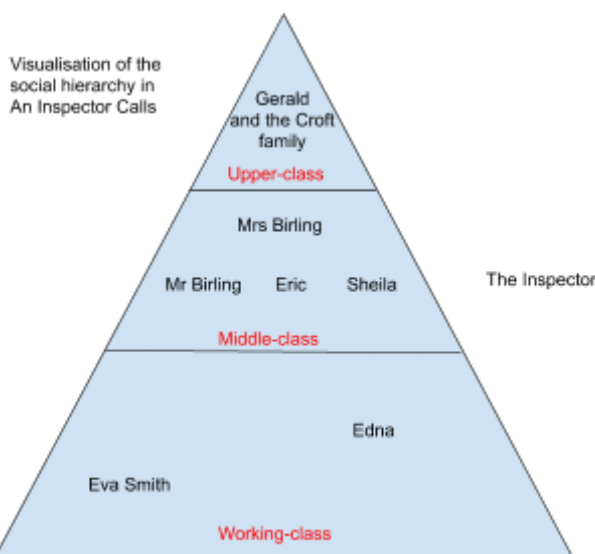


Figure 1

