“Critically evaluate Piaget’s theory of cognitive development”

Being mentally and physically active from birth with regards to cognitive development, children are argued by Piaget (1954) to actively shape their own development in response to experience. This assumption shaped Piaget’s four stage cognitive development model and the sources of continuity (assimilation, accommodation and equilibration) that underpin it (Siegler et al., 2017). Readily accounting for children’s nature across age groups and how nature and nurture interact to propel intellectual growth, Piaget provides an in-depth examination of numerous developmental topics - namely language use, memory, perspective-taking and reasoning (Siegler et al., 2017). The plausibility, breadth and longevity of this theory alone accounts for its position as one of the best-known cognitive development theories currently (Siegler et al., 2017). However, recent theoretical and methodological critiques have questioned the current and future relevance of Piagetian theory. Because of such, a critical evaluation is aimed to determine the theoretical strength of the four-stage model, where it stands in relation to strong critique, and why – despite significant fundamental weaknesses - it retains dominance in a developing body of cognitive developmental literature. Thus, an evaluation of the most poignant theoretical threats to the longevity of this theory, as well as how competing theories and current research could undermine Piaget’s conclusions, follow.

Foremost, although Piaget offered a plausible and broad account of the relation between a child’s thinking and their cognitive growth, common criticisms (Siegler et al., 2017) denote an apparent failure to adequately explain how underlying mechanisms facilitate this growth accordingly. Particularly, three completely plausible sources of continuity were suggested as mechanisms for development – assimilation, accommodation and equilibration – but interconnections of these mechanisms to propel cognitive development were arguably not explained convincingly (Siegler et al., 2017). Accordingly, without a comprehensive
explanation of how these mechanisms operate – the whole theoretical basis of Piaget’s developmental stages could be partly discredited in the literature. In this way, “precise characteristics of the mechanisms that give rise to children’s thinking and that produce cognitive growth” are necessary for a more comprehensive account of children’s development (Siegler et al., 2017). Information-processing theories (Klahr, 1978) account for mechanisms underlying cognitive development extensively through modelling computer simulations for many aspects of development – including but not limited to: object permanence (Munakata & McClelland, 2003), categorisation (Rogers & McClelland, 2004) and word learning (McMurry, Horst & Samuelson, 2012). Hence, this competing theory, with its detailed account of mechanisms, accounts for weaknesses in Piagetian literature and therefore also undermines its theoretical basis.

Within Piaget’s work methodological issues are also apparent (Baillargeon, 1987). When critically evaluating such, the type of complex testing used on children for much of his research did little to accurately assess children’s actual cognitive competence (Miller & Baillargeon, 1990) as testing did not fully control performance factors: such as the nature of the task (Lourenço & Machado, 1996) and how to measure object permanence with the most accuracy. Piaget’s test of object permanence at the preoperational stage of development is a prime example of a task said to conclude such false-negative errors (Donaldson, 1987; Halford, 1989; Siegal, 1991). This is apparently due to Piaget’s misunderstanding of 1) the nature of the task and 2) how to measure object permanence in children as a result. Initially in this test, children that actively searched for a hidden object met the criteria of recognising object permanence and so this intelligence was concluded to emerge at 8 months approximately (Piaget, 1937). However, recent alternative object permanence tests (Baillargeon, 1987; Baillargeon & Graber, 1987; Miller & Baillargeon, 1990) that used the surprise reaction in children as the main criteria for object permanence argued that “by 3
months of age, infants at least suspect that objects continue to exist" (Siegler et al., 2017). This research was believed to seriously question Piaget’s claims regarding 1) the age at which objects become cognitively permanent and 2) how mechanisms support this emergence (Baillargeon, 1987). Expanding on this, McGarrigle and Donaldson (1974) argued that in order to study children’s cognitive development in task-lead interventions, the tasks need to make human sense methodologically, in accordance with the child’s comfortable ability to demonstrate recognition of objects i.e. facial expressions in infancy may be more telling of knowledge than hand movements at this stage. Piaget may not have accounted for this idea in his work and therefore yielded a different conclusion as a result – one that produced false-negative errors according to more recent evaluations (Baillargeon, 1987; Baillargeon & Graber, 1987; Miller & Baillargeon, 1990).

Further to the above, Piaget has been critiqued historically over his use of terminology in the published literature – famously, the idea of egocentrism. This concept, according to Piaget (1954), represented a limit in children’s thinking at the preoperational stage of development as according to this understanding, children could only perceive the world from their own perspective. Demonstrating this concept, Piaget (1954) asked children to depict a dolls visual point of view from different chairs at a table – which required overcoming an egocentric point of view for the 4-year-olds partaking in the study. Piaget’s subsequent conclusions from this study: that pre-operational children could not overcome an egocentric state to understand positioning from the dolls perspective, had led to various methodological and theoretical challenges that dispute this conclusion profusely. Namely, Hughes and Donaldson (1979) argued - through a variation of the three mountains task that involved children identifying places within a structure that an individual could hide from a policeman - that children can indeed overcome an egocentric state at this age and in this way take other people’s perspectives into account. This finding has indeed sparked an interest into revising
the concept of egocentrism in Piagetian terminology to reduce ambiguity and defend this construct (Kesselring & Müller, 2011) in the literature.

Since Piaget’s developmental interests encompassed children understanding the world through their own efforts (Siegler et al., 2017), he is commonly criticised for neglecting the extensive role of sociocultural influence on child development – which is said to shape development to a far further degree than is readily acknowledged by Piaget (Winegar & Valsiner, 1992). Children, of course, do not exist within a social vacuum as Piagetian theory has been suggested to assume (Broughton, 1981) and therefore the lack of social influence in the Piagetian literature appears to undermine the countless contributions that social factors have in determining developmental pathways for children, while “falling prey to genetic individualism” (Forman, 1992). However, these critiques appear to undervalue Piaget’s treatment of social factors as he indeed argued that thought exchanges and co-operation with others was necessary to develop cognitive operations as an individual (Piaget, 1967). The paramount value of societal collective-interaction in achieving individual intellectual constructions was also highlighted by Piaget (1967) which partly refutes claims of inattention to societal influences on development. In addition, since Piaget was focused on establishing the origins of necessary knowledge (Lourenço & Machado, 1996) it is argued that social factors are epistemologically irrelevant in this aim as, according to Smith (1993), necessary knowledge exceeds social regularities.

Theoretically, Piaget idealises children’s thinking as wholly consistent at certain stages of development – although this does not account for the obvious variability in children’s thinking that is seen in reality (Field, 1987). In this way, since each stage in the development model is characterised by a different way of thinking, Piaget argued that all children, upon entering each stage of development, think consistently and characteristically of that stage – across the many concepts of cognitive development (Piaget, 1954). This idea is observed to
be an over-generalisation that does not account for individual differences – rather, it oversimplifies the complexity involved in patterns of cognitive intelligence and understanding (Siegler et al., 2017).

To conclude, it is evident that Piaget’s theory of cognitive development is subject to certain methodological and theoretical critiques. Although these critiques undermine aspects of the theory to an extent, these weaknesses should not discredit the theory wholly as the broadness and depth in which children’s development is addressed remains one of the most insightful intellectual accomplishments in the current literature (Siegler et al., 2017). When taking alternative theoretical explanations into account – especially that of the information-processing model, the mechanisms involved in such could be argued to complement Piaget’s understanding and provide an explanation for the functioning of mechanisms that Piaget described plausibly in the literature. Therefore, the increasing prominence of such theories (Siegler et al., 2017) should not be ignored – rather used in conjunction with Piagetian understanding to attain a comprehensive understanding of cognitive development in children.

Word Count: 1403
References


Candno: 184157


Instructor

Well done. This is a clear and well structured essay. You engage in critical evaluation throughout and back your points up with studies effectively, demonstrating evidence of wider reading.

Some of your sentences were a little long. This makes your points difficult to follow. In future, try to keep your sentences short to make your points clearer.

In order to improve your mark you could have included a little more detail on the methodology used in the studies you use to back up your points.
Comment 5

Good. Could you detail this task

Comment 6

I'm not sure what you mean by this

Comment 7

Good
### CRIT. EVAL.

#### Excellent

Evidences "an impressive level of depth...and originality", and/or "considerable critical originality and insight" and meets criteria for lower grades [refer to outstanding 1st marking criteria]

#### Very Good

Some evidence of "original or critical thought" and/or "originality and flair" and meets criteria for lower grades [refer to clear 1st marking criteria]

#### Good

Has "evidence of critical thought about the topic and not simply a reproduction of standard arguments" [refer to 2:1 marking criteria]

#### Satisfactory

Has "reasonably competent but somewhat predictable and lacking in originality" [refer to 2:2 marking criteria]

#### Needs Improvement

Has "little appreciation of the debates or the different interpretations that might be drawn from particular evidence" [refer to 3rd marking criteria]

#### Poor

The "arguments given are largely unsubstantiated", and/or may "contain no answer to the question" [refer to fail marking criteria]

### KNOW. & UND.

#### Excellent

Demonstrates "commanding knowledge and understanding of the topic" and meets criteria for lower grades [refer to outstanding 1st marking criteria]

#### Very Good

Makes "extensive use of primary sources" and/or shows "a thorough understanding and appreciation of the material" and meets criteria for lower grades [refer to clear 1st marking criteria]

#### Good

Evidences use of a "wide variety of material" and/or "clear understanding of the issues raised" [refer to 2:1 marking criteria]

#### Satisfactory

Shows "evidence of reading the basic material for the topic and a reasonable understanding of it, but with some signs of weakness" e.g., signs of confusion / some lapses of clarity [refer to 2:2 marking criteria]

#### Needs Improvement

This "indicates a very basic understanding of the topic, but has not gone beyond this" and/or shows "limited scope" [refer to 3rd marking criteria]

#### Poor

This is "incomplete and inaccurate", and/or may show "minimal evidence of information beyond the level expected from a lay person" [refer to fail marking criteria]

### WRITING

#### Good

Writing
<table>
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<th>Grade</th>
<th>Description</th>
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<tr>
<td>EXCELLENT</td>
<td>Shows &quot;truly exceptional quality&quot; and meets criteria for lower grades [refer to outstanding 1st marking criteria]</td>
</tr>
<tr>
<td>VERY GOOD</td>
<td>The &quot;standard of English is good with minimal errors&quot; and this is &quot;well presented and properly referenced&quot; and meets criteria for lower grades [refer to clear 1st marking criteria]</td>
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<tr>
<td>GOOD</td>
<td>The &quot;standard of English is good, and spelling and grammar is reasonable&quot; and &quot;all sources are properly cited&quot; [refer to 2:1 marking criteria]</td>
</tr>
<tr>
<td>SATISFACTORY</td>
<td>The &quot;standard of English is reasonably competent&quot; [refer to 2:2 marking criteria]</td>
</tr>
<tr>
<td>NEEDS IMPROVEMENT</td>
<td>The standard of English was “basic with grammatical and spelling errors” [refer to 3rd marking criteria]</td>
</tr>
<tr>
<td>POOR</td>
<td>The standard of English was very poor; and/or may have &quot;disconnected fragments&quot; [refer to fail marking criteria]</td>
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**STRUCTURE**

**Very good**

Structure/ Organisation

<table>
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<th>Grade</th>
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<tr>
<td>EXCELLENT</td>
<td>Shows &quot;an impressive level of ...clarity&quot;, may be &quot;equivalent to…a high quality Psychology journal&quot; and meets criteria for lower grades [refer to outstanding 1st marking criteria]</td>
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<tr>
<td>VERY GOOD</td>
<td>Is an example of &quot;a clear structure and developing a coherent argument&quot; and meets criteria for lower grades [refer to clear 1st marking criteria]</td>
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<tr>
<td>GOOD</td>
<td>Is &quot;well structured, clearly written and well presented&quot; [refer to 2:1 marking criteria]</td>
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<tr>
<td>SATISFACTORY</td>
<td>Is &quot;reasonably well-structured and the material is coherently presented&quot; [refer to 2:2 marking criteria]</td>
</tr>
<tr>
<td>NEEDS IMPROVEMENT</td>
<td>Shows &quot;signs of confusion, and/or poor organisation&quot; [refer to 3rd marking criteria]</td>
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<tr>
<td>POOR</td>
<td>A &quot;poorly argued answer&quot; and/or &quot;very poorly organised&quot; [refer to fail marking criteria]</td>
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