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Children’s emerging understanding of death

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### Abstract

Children’s understanding of death has been a topic of interest to researchers investigating the development of children’s thinking and clinicians focusing on children’s coping with the death of a loved one. Traditionally, researchers in cognitive development have mainly focused on death from a biological perspective. Current research suggests that exploring religious and spiritual conceptualizations might enrich our understanding of how children come to think about death. In particular, we review different methodological approaches that suggest that children form their understanding of death by engaging in conversations and question asking with family members, consuming cultural products, and actively participating in cultural rituals. We also provide some examples on how children combine different belief systems to form their understanding of death. Finally, we discuss recent research on how socialization with regards to death might be related to coping and bereavement after the death of a loved one.

*Keywords:* Understanding of death, explanatory co-existence, culture

### 63 Children's emerging understanding of death

64 Exploring children's death understanding has a long tradition in developmental  
65 psychology (Piaget, 1929). Traditionally, it was believed that children were incapable of  
66 understanding the meaning of death until around 10 years of age (Carey, 1985; Piaget, 1929).  
67 However, changes in how death is conceptualized and related changes in methodology have led  
68 researchers to conclude that children have an earlier emerging understanding of death (Gutiérrez,  
69 Menendez, Jiang, Hernandez, Miller, & Rosengren, 2019; Rosengren, Miller, Gutiérrez, Chow,  
70 Schein, & Anderson, 2014; Speece & Brent, 1984). In this paper, we review research on  
71 children's death understanding and examine how theoretical and methodological changes have  
72 led to a more nuanced view of children's thinking about death.

### 73 **Conceptualizing death**

74 Traditionally, researchers considered death to be a unitary concept, poorly understood by  
75 children until the ages of 9 or 10 (Piaget, 1929). Carey (1985) argued that children only come to  
76 understand death when they know that it was caused by the breakdown of the bodily systems  
77 necessary to maintain life. More recently, in an effort to define death as a multi-faceted concept,  
78 Speece and Brent (1992) proposed four key sub-components of death: universality (all living  
79 things die), finality (death is final and irreversible), non-functionality (death leads to the  
80 cessation of biological and psychological processes), and causality (death can be caused by  
81 different factors). By conceptualizing death in terms of these different sub-components,  
82 researchers have revealed that children acquire an understanding of death at an earlier age  
83 (Speece & Brent, 1984; 1992). Prior to age 5, children begin to develop an understanding of  
84 universality, followed by an understanding of finality (Rosengren et al., 2014; Slaughter, 2005).  
85 By 5 years of age, most children understand that death leads to the cessation of bodily processes,

86 and by age 6, children have the more sophisticated understanding that death can be caused by  
87 many factors, not just old age (Panagiotaki, Hopkins, Nobes, Ward, & Griffiths, 2018).

88         Although deconstructing death into these sub-components has been fruitful, it also has  
89 one glaring issue: this approach has treated death as a purely biological concept. This can be  
90 problematic because for many individuals and cultures, death is also understood through a  
91 religious or spiritual lens (Astuti, 2000; Gutiérrez et al., 2019; Watson-Jones, Busch, Harris, &  
92 Legare, 2017). In order to examine these non-biological concepts of death, some researchers  
93 have proposed a fifth sub-component of death, non-corporeal continuity, which focuses on  
94 beliefs in the afterlife (Bering & Bjorklund, 2004; Bering, Blasi, & Bjorklund, 2005; Rosengren  
95 et al., 2014). Other researchers have acknowledged that cultures vary greatly with respect to the  
96 rituals and practices surrounding death (Kagawa-Singer, 1998; Lobar, Youngblut & Brooten,  
97 2006) and have studied how individuals growing up in different cultures come to understand  
98 death (Astuti, 2000; Busch, Watson-Jones, & Legare, 2017; Rosengren et al., 2014). An  
99 important finding resulting from these efforts is the idea that biological and religious concepts of  
100 death often co-exist in the minds of both children and adults (Busch et al., 2017; Gutiérrez et al.,  
101 2019; Legare, Evans, Rosengren, & Harris, 2012).

### 102 **How do children acquire their understanding of death?**

103         A key question is not only when do children understand death, but how do they come to  
104 this understanding? Traditionally, researchers believed that children understood death from a  
105 uniquely biological perspective (Piaget, 1929). Research from this perspective sought to only  
106 characterize children's biological understanding of death. In contrast, we believe that children  
107 form their understanding of death by combining their biological reasoning with information from  
108 their cultural environment - including information from religious and spiritual contexts. Using

109 qualitative and quantitative methods allows researchers to examine how children make sense of  
110 the different information presented to them.

111 *Biological reasoning.* The traditional view has been that children's understanding of  
112 death arises from a general understanding of biology. In one study from this perspective,  
113 Slaughter and Lyons (2003) provided children a lesson on the body and its systems, and then  
114 examined their understanding of death. They found that children who learned about the body had  
115 a better understanding of the causes of death. This and other research suggests that children's  
116 understanding of death is rooted in their understanding of life, the body, and other biological  
117 concepts (Rosengren et al., 2014; Slaughter & Lyons, 2003).

118 While biological reasoning is clearly important for an understanding of death, we argue  
119 that children's understanding of death emerges as the result of an interaction between their  
120 biological reasoning, their experiences with death-related rituals, and parental socialization.  
121 Thus, children's understanding of death is the product of children making sense of a variety of  
122 biological and spiritual information about death. Examples of this can be seen in cross-cultural  
123 work that shows that children (and adults) often incorporate religious and spiritual beliefs into  
124 their understanding of death (Astuti & Harris, 2008; Gutiérrez et al., 2019; Watson-Jones et al.,  
125 2017). In order to examine how children come to understand death, it is important to take a  
126 socio-cultural approach that examines how children make sense of information that can appear to  
127 be in conflict (e.g., biological views of death and religious ones vary greatly on issues of  
128 finality). We argue that biological and religious information about death, which are often seen as  
129 being in conflict with each other, is often presented together in children's media and parental  
130 conversations. This suggests that these different views are not presented as contradictory to  
131 children. Additionally, children are not simply absorbing this information, but rather asking

132 questions and participating in cultural rituals which furthers their conceptual development  
133 (Rogoff, 1998).

134         The idea that children actively construct knowledge from available information implies  
135 that culture plays a central role in children's emerging understanding of death. There has been a  
136 breadth of research that shows cultural differences in how children conceptualize death (Astuti &  
137 Harris, 2008; Bering & Bjorklund, 2004; Gutiérrez et al., 2019; Lane, Zhu, Evans, & Wellman,  
138 2016; Panagiotaki, Nobes, Ashraf, & Aubby, 2015; Watson-Jones et al., 2017). Knowing that  
139 there are cultural variations in children's understanding of death raises the arguably more  
140 interesting question of *how* culture influences children's conceptualizations of death. Below we  
141 draw from research on children's understanding of death and the broader cognitive  
142 developmental field to argue for three potential ways cultures influence children's understanding  
143 of death. We contend that differences in cultural norms related to how openly parents discuss  
144 death (Gutiérrez et al., 2019), the presence of death-related content in children's media (Lee,  
145 Kim, Choi, & Koo, 2014), and the extent to which children actively participate in cultural rituals  
146 surrounding death all impact children's understanding of death. Although there is evidence that  
147 culture also influences how people think about the biological world (ojalehto, Medin, Horton,  
148 Garcia, & Kays, 2015), we do not discuss this at length given that we are not aware of any work  
149 that connects different types of conceptualizations of biology specifically to children's reasoning  
150 about death.

151         *Parental conversations and question asking.* One source of information about death that  
152 has received considerable attention is parent-child conversations. Although some aspects of  
153 death may be clearly observable (e.g., a dead animal cannot jump), others are less readily  
154 observable (e.g., whether a spirit continues to exist). Harris and Koenig (2006) suggested that

155 children rely on testimony from adults to build their understanding of phenomena that are  
156 generally unobservable. Testimony from adults have also been proposed to influence children's  
157 endorsement of death and afterlife beliefs (Lane & Harris, 2014).

158         One issue with children potentially learning about death from adult testimony is that  
159 western societies have been viewed as attempting to shield children from death and death-related  
160 experiences (Ariès, 1974; Rosengren et al., 2014 ). At first glance, this “modern interdiction of  
161 death” (Ariès, 1974) might lead to the assumption that families rarely engage in conversations  
162 about death. However, the fact that parents in western countries may not volunteer information  
163 about death does not mean that children do not request this information. Chouinard (2007)  
164 proposed that children's question asking might be a central mechanism in children's cognitive  
165 development. As children acquire more domain knowledge, their ability to ask questions  
166 improves and they ask more focused questions to fill specific knowledge gaps (Ronfard,  
167 Zambrana, Hermansen, & Kelemen, 2018). Given that recent reports have found that many  
168 parents indicate that their children begin to ask questions about death as young as three years of  
169 age (Renaud, Engarhos, Schleifer, & Talwar, 2015), and that these questions were often sparked  
170 by a recent death in the family (Bridgewater, Menendez & Rosengren, under review), question  
171 asking might also be a key mechanism that children use to learn about death.

172         Researchers examining children's understanding of death have examined the content of  
173 children's questions and how parents respond (Gutiérrez et al., 2019; Rosengren et al., 2014).  
174 The results of these studies are surprisingly consistent, suggesting that young children  
175 predominantly ask questions about the sub-components of death, typically in very general terms  
176 (“What happens to people when they die?”), but some questions are more specific (“How old are  
177 you when you die?”). Many of these questions focus on the causes of death. Given that causality



178 is the last sub-component that children come to understand, they may be asking questions about  
179 the sub-components they least understand in order to enrich their knowledge. This work,  
180 although quite informative, has relied exclusively on parents' retrospective reports, making it  
181 difficult to relate children's questions to their current death understanding.

182         An interesting finding emerging from research on children's questions about death, is that  
183 there appears to be a mismatch between the content of children's questions and parents'  
184 responses. Children predominantly ask questions about the biological sub-components of death,  
185 but parents often provide religious information in response (Bridgewater et al., under review;  
186 Gutiérrez et al., 2019). Children also rarely ask specific questions involving religious aspects of  
187 death, yet parents' responses often include religious or spiritual elements (e.g., references to  
188 Heaven). One potential reason for this mismatch might be that children's questions can be  
189 interpreted quite broadly, allowing parents to provide responses from whichever belief systems  
190 they find most comforting. For example, if a child asks, "What happens to people when they  
191 die?" a parent could provide a biological response "your body stops working" or a religious  
192 response "you go to Heaven." Parents might assume that children might find biological  
193 responses disturbing as they suggest the end of a relationship with the deceased (rather than a  
194 continued spiritual relationship as many religious explanations suggest), and they might also  
195 underestimate their children's ability to understand biological based information (Bluebond-  
196 Langner, 1978; Gaab, Owens, & MacLeod, 2013). Some parents combine biological and  
197 spiritual information either in the same answers or across multiple answers (Bridgewater et al.,  
198 under review). The fact that parents at least sometimes combine biological and spiritual  
199 information suggests that children are exposed to multiple belief systems about death, and that at

200 least some children are likely acquiring a view of death that incorporates multiple belief systems  
201 at once.

202         *Consumption of media.* Children might also learn about death by observing how death is  
203 portrayed in media. A number of researchers have examined how death is portrayed in children's  
204 books (Lee et al., 2014) and animated films (Cox, Garrett, & Graham, 2005; Tenzek & Nickels,  
205 2017). In order to examine how frequently death is portrayed in children's books, Rosengren et  
206 al. (2014) examined parents' reports of their children's favorite books and Caldecott Medal  
207 winners (an award for distinguished picture books given by the Association for Library Service  
208 to Children). They found that only 3% of these books depicted death. This stands in stark  
209 contrast to the top animated children's films, 75% of which contained a death (Bridgewater et al.,  
210 under review). However, many of the deaths portrayed in animated films were not depicted  
211 explicitly (e.g., the death occurred off-screen). This indicates that although children's books  
212 rarely portray death, children's films often do. One potential reason for the difference might be  
213 that depicting death implicitly is easier to portray in films than it is in books. This seems to be in  
214 line with findings that *books with images* portray death more often than *books without images*,  
215 even though books without images are generally meant to be read by older children (Poling &  
216 Hupp, 2008).

217         Researchers have also examined children's books designed specifically for bereaved  
218 children. Although the majority of these books contain information about the biological sub-  
219 components of death, many included religious and spiritual perspectives (Rosengren et al.,  
220 2014). Books, as cultural artifacts, depict a view of death that matches that of the culture of its  
221 writers. For example, researchers found that books about death from Western European countries  
222 depicted spiritual aspects of death more often than books from East Asian countries (Lee et al.,

223 2014). This is in line with studies that show that children and adults in Western countries are  
224 more likely to think about spiritual aspects of death than children and adults in East Asian  
225 countries (Lane et al., 2016). Therefore, it is likely that children receive culturally consistent  
226 information about death from their parents and the media, possibly containing both biological  
227 and non-biological perspectives on death.

228       *Participation in cultural rituals.* Recent studies have focused on the social functions of  
229 rituals, paying special attention to the role of rituals in defining groups and facilitating group  
230 cohesion (Watson-Jones & Legare, 2016). Here, we focus on children's learning through  
231 observing and participating in cultural rituals (Rogoff, Mejía-Arauz, & Correa-Chávez, 2015).  
232 Ethnographic work by Gutiérrez, Rosengren, and Miller (2015) showed that children in Puebla,  
233 Mexico often participate in and help prepare for the *día de los muertos* (Day of the dead)  
234 celebration. During this celebration, families create *ofrendas* (altars) for dead relatives and place  
235 food for their visit. The majority of the children that participate in this celebration indicate that  
236 their dead relatives came to visit and that the dead consumed the food placed on the *ofrendas*,  
237 even though these same children understand that death is irreversible and that physical functions  
238 (like eating) stop after death (Gutiérrez et al., 2019). Other studies on children's death  
239 understanding have used ethnographic field work to enrich quantitative approaches and improve  
240 our understanding of how children's experiences with death rituals help shape their  
241 understanding of death (Astuti, 2000).

242       One conclusion to be drawn from past research is that children form their emerging death  
243 understanding by combining aspects of biological reasoning with concepts and symbols drawn  
244 from religious and broader cultural contexts. There is evidence that children first come to a  
245 biological understanding of death prior to integrating spiritual or religious dimensions, using

246 their existing biological concepts of death to constrain their religious understanding (Astuti &  
247 Harris, 2008; Giménez & Harris, 2005; Lane & Harris, 2014). Ultimately, people often combine  
248 these different models, resulting in the co-existence of different explanatory beliefs (Busch et al.,  
249 2017; Legare et al., 2012). These co-existence models can be target-dependent (where the belief  
250 system used depends on the context) or blended (where two or more belief systems are combined  
251 in one explanation). Examples of target-dependent models can be seen in research that looks at  
252 how children's responses to questions about death are different depending on whether they are  
253 presented with a religious or a secular context (Astuti & Harris, 2008; Giménez & Harris, 2005;  
254 Lane et al., 2016). One example of the blended model is presented by Rosengren et al. (2014, pg.  
255 27) in which a child stated that her deceased mother was in heaven (a spiritual understanding),  
256 but that her mother was tired because she had to stand on the clouds for very long (imparting  
257 biological traits to spirits). These blended models can be difficult to identify, but some  
258 researchers have successfully used a combination of qualitative and quantitative approaches to  
259 examine how children blend different belief systems (Gutiérrez et al., 2019; Rosengren et al.,  
260 2014). However, future work should explore how and when children combine different beliefs.

### 261 **Ramifications of children's understanding of death**

262         Recent research suggests that different understandings of death influence how people  
263 respond to death. Research focusing on non-bereaving children has shown that a greater  
264 biological understanding of death is related to lower death anxiety (Slaughter & Griffiths, 2007)  
265 and to beliefs that people should feel sad after the death of a loved one (Gutiérrez et al., 2019).  
266 Clinical research focusing on bereaving children suggests that fear and anxiety may make it  
267 difficult for children to reason about death (Ellis, Dowrick, & Lloyd-Williams, 2013).  
268 Additionally, open communication between parents and children about death has positive

269 consequences for children's coping (Christ, 2000; Field, Tzadikario, Pel, & Ret, 2014). One  
270 study examined this issue in a retrospective manner by asking adults to remember how open their  
271 parents were when discussing death and how much their parents shielded them from death  
272 (Martinčková et al., 2018). These researchers found that people who recalled their parents being  
273 open to talking about death reported better coping after a death in childhood, which in turn was  
274 associated with better coping in adulthood. These data suggest that parent-child conversations  
275 about death might be important for children's coping and death understanding. Future work  
276 should examine this issue more in-depth.

### 277 **Future directions**

278         There are a number of important directions for future research. First, although there is  
279 research examining children's cognitive and affective understanding of death separately, very  
280 few studies explore both of these constructs in the same investigation. Future work should  
281 examine how children's cognitive and affective understanding relate and how religion influences  
282 both constructs. Second, while there is research on the death-related content present in children's  
283 media, there is currently little research on whether parents or children engage with this content.  
284 Although researchers report that children ask parents questions about death portrayed in movies  
285 (Bridgewater et al., under review), we don't know much about if and how parents might use  
286 different forms of media as tools to teach children about death. Finally, there is very little  
287 research on how losing a loved one influences children's understanding of death. This is a  
288 difficult issue to study prospectively, out of concern for the privacy of bereaved families. Past  
289 research with bereaving populations has involved clinicians and focused almost exclusively on  
290 children's coping skills, not on their understanding of death. Research with non-bereaving  
291 children often asked whether the children have experienced the death of a loved one, but few

292 examine whether there are differences in children's understanding of death between children  
293 who have and have not lost a loved one (but see Panagiotaki et al., 2018).

#### 294 **Conclusions**

295 Children seem to have a fairly sophisticated understanding of death by the age of six.  
296 They appear to actively construct their understanding of death by asking adults questions,  
297 consuming cultural products, and participating in cultural rituals. These sources often provide  
298 information that maps onto different belief systems, leading children to potentially combine  
299 these systems to create a concept of death that is deeply rooted in both their biological reasoning  
300 and their cultural symbolic system. Given this dynamic process of knowledge construction, we  
301 suggest that it is important to use a variety of methods to gain a comprehensive view of  
302 children's understanding of death, and how this understanding may vary by context and culture.  
303 To understand children's conceptualizations of death, we need to explore in greater detail  
304 children's experiences with the death of a loved one, their affective responses to death, and how  
305 religious beliefs may shape their reasoning about death. While preliminary evidence suggests  
306 that children's understanding of death might be related to how they cope with the death of a  
307 loved one both in childhood and adulthood, future research should examine this relation in more  
308 detail.

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