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SELECTIVE TRUST IN PRESCHOOLERS: A SYSTEMATIC REVIEW [1]

Débora de Hollanda Souza [2], Orcid: http://orcid.org/0000-0003-1100-4755
Ana Carolina Messias [2 3], Orcid: http://orcid.org/0000-0002-8462-0949

ABSTRACT. Although the field of studies on selective trust has gained much attention in recent years, this line of research is not yet sufficiently publicized in Brazil. The present systematic review aimed to assess scientific evidence on selective trust in preschool children, as well as on possible variables influencing trust judgements. The search was performed in PSYCINFO, ScieloBrasil, PEPSIC and LILACS, using the keywords 'selective trust', 'epistemic trust' and their correspondents in Portuguese *confiança seletiva* and *confiança epistêmica*. From a total of 103 studies found, 45 empirical articles, published between 2008 and 2018, were analyzed using the PRISMA protocol. In contrast to a predominant view in many cultures that children believe everything they hear, they are not naïve consumers of information. Effects of individual and contextual variables on selective trust judgments are discussed, which point to promising future research directions.

Keywords: Selective trust; preschoolers; social cognition.

CONFIANÇA SELETIVA EM CRIANÇAS PRÉ-ESCOLARES: UMA REVISÃO SISTEMÁTICA

RESUMO. Embora o campo de estudos sobre confiança seletiva tenha ganhado destaque nos últimos anos, essa linha de pesquisa não é ainda suficientemente divulgada no Brasil. A presente revisão sistemática teve como objetivo avaliar a produção científica sobre confiança seletiva em crianças pré-escolares, bem como sobre possíveis variáveis que influenciam os julgamentos de confiança. A busca foi realizada nas bases de dados PSYCINFO, Scielo Brasil, PEPSIC e LILACS, utilizando-se as palavras-chave *selective trust*, *epistemic trust* e seus correspondentes em português 'confiança seletiva' e 'confiança epistêmica'. De um total de 103trabalhos, foram analisados 45artigos empíricos, publicados entre 2008 e 2018, seguindo o protocolo PRISMA. Contrariando uma crença predominante em muitas culturas de que as crianças acreditam em tudo o que ouvem, elas não são consumidoras ingênuas de informação. Discutem-se os efeitos de variáveis individuais e contextuais sobre os julgamentos de confiança seletiva que apontam para direções futuras promissoras de pesquisa.

Palavras-chave: Confiança seletiva; crianças pré-escolares; cognição social.

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[2] Universidade Federal de São Carlos, São Carlos-SP, Brazil.
[3] Email: anacarolinamessias@rocketmail.com

LA CONFIANÇA SELECTIVA: UNA REVISIÓN SISTEMÁTICA

RESUMEN. Aunque el campo de estudios sobre confianza selectiva ha ganado destaque en los últimos años, esta línea de investigación aún no ha sido suficientemente divulgada en Brasil. En la presente revisión sistemática se tuvo como objetivo evaluar la producción científica sobre confianza selectiva en niños preescolares, así como sobre posibles variables que influencian los juicios de confianza. La búsqueda fue realizada en las bases de datos PSYINFO, Scielo Brasil, PEPSIC y LILACS, utilizando las palabras clave *selective trust*, *epistemic trust* y sus correspondientes en portugués 'confiança seletiva' y 'confiança epistémica'. De un total de 103 estudios, se analizaron 45 artículos empíricos, publicados entre 2008 y 2018, siguiendo el protocolo PRISMA. Contrariando una creencia predominante en muchas culturas de que los niños creen en todo lo que oyen, ellos no son consumidores ingenuos de información. Se discuten los efectos de variables individuales y contextuales sobre los juicios de confianza selectiva que apuntan a futuras direcciones prometedoras de investigación.

Palabras clave: Confianza selectiva; niños preescolares; cognición social.

Introduction

There is a prevalent view in many cultures that children are prone to credulity and that they believe everything they hear (Marková & Gillespie, 2008). Recent experimental evidence, however, indicates that 3- and 4-year-old children are already capable of tracking an individual's past history and, based on this tracking, they can determine who is the reliable informant in situations where new information needs to be learned (Birch, Vauthier, & Bloom, 2008; Koenig, Clément, & Harris, 2004; Pasquini, Corriveau, Koenig, & Harris, 2007). This competence has been conventionally termed selective or epistemic trust in Developmental Psychology (Robinson & Einav, 2014) and the number of studies investigating the origins and cognitive mechanisms underlying this process has increased greatly in the last decade (Harris, Koenig, Corriveau, & Jaswal, 2018; Hermes, Behne, & Rakoczy, 2018).

To assess selective trust in young children, researchers have used variations of a simple paradigm (e.g., Corriveau, Meints, & Harris, 2009; Koenig et al., 2004; Pasquini et al., 2007): in a familiarization phase, children watch videos during which two individuals are asked to provide information (e.g., saying the name of familiar objects). Therefore, during this first phase, evidence about each individual's level of trustworthiness is made available. For example, one correctly labels all familiar objects and the other provides incorrect names (e.g., claims that the ball shown in the video is a chair). In a second test phase, unfamiliar objects are presented, and the two potential informants label them, using pseudowords (e.g., one names the object 'dax' and the other names it 'toma'). Finally, children are asked to tell the researcher which of the two names ('dax' or 'toma') is the correct name for the unfamiliar object.

Despite the attention that these studies have received at the international level, this phenomenon is still poorly explored by Brazilian psychological science. Selective trust in

more reliable informants raises important questions about the psychological processes through which children gain knowledge and also about the universality of these processes. Given the evidence on the effects of culture on the expression of trust and skepticism (Yamagishi & Yamagishi, 1994), it would be wrong to assume that trust manifests itself in the same way in different cultural groups.

Nisbett (2004), for example, argues that there are important differences between people raised in cultures that encourage independent thinking and those raised in cultures that encourage interdependence. Some cultures, for example, seem to emphasize independence and self-confidence, as is the case in the U.S. (Triandis, 1989). In some indigenous communities in the Americas, on the other hand, children are raised to collaborate early in daily household chores, assuming responsibilities and learning via the observation of adults (cf. Correa-Chávez, Mejía-Arauz, & Rogoff, 2015). It is possible that children from these cultures are better trained to combat misinformation and to demonstrate a skeptical attitude more readily when necessary. What can we expect from the development of selective trust in Brazilian children?

Some authors argue that Brazilian culture depends heavily on social ties and social solidarity (e.g., Chauí, 1993). Brazilian political institutions do not seem to be considered worthy of trust (e.g., DaMatta, 2004), but Brazilians have great confidence in their neighbors, friends and family; they trust members of the local community with whom they interact on a daily basis (Gouveia & Clemente, 2000). Additionally, there is an important aspect of Brazilian culture related to adherence to social norms and laws (DaMatta, 2004). According to DaMatta (2004, p. 45-46), in Brazilian culture, there is a "[…] dilemma between laws that should be applied to everyone and personal relations, clearly exclusive, that serve to escape or neutralize these norms".

Considering the potential contributions of research on the origin and development of selective trust and the scarce number of studies on this topic in Brazil, the present systematic review aimed to analyze the empirical studies that investigated this phenomenon in the period from 2008 to 2018. We sought answers to two main questions: How does selective trust develop during the preschool years (3 to 6 years)? What are the variables that can influence children's epistemic trust judgments during this period of development?

Method

This systematic review was conducted in accordance with the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)* protocol (Liberati et al., 2009).

Databases and search terms

The search was conducted in the databases SciELO (Scientific Electronic Library Online), PePSIC, LILACS (Latin American and Caribbean Literature in Health Sciences) and PsycINFO. The search terms used with the Boolean operators were 'selective trust OR epistemic trust' and their correspondents in Portuguese *confiança seletiva* OR *confiança epistêmica*.

Inclusion and exclusion criteria

The inclusion criteria used for the selection of studies were the following: a) empirical study reports; b) target population of typically developing preschool children (3 - to 6 - year-olds); c) full text available; c) text available in English, Portuguese or Spanish; d) published in the period between 2008 and 2018; e) published in a peer-reviewed journal.

The exclusion criteria, in turn, were: a) the central theme of the study was not selective/epistemic trust; b) target populations of school-aged children, adolescents or adults; c) target population of atypically developing children; d) clinical studies or therapeutic interventions; e) theoretical papers or literature reviews; f) prefaces, comment papers or book reviews.

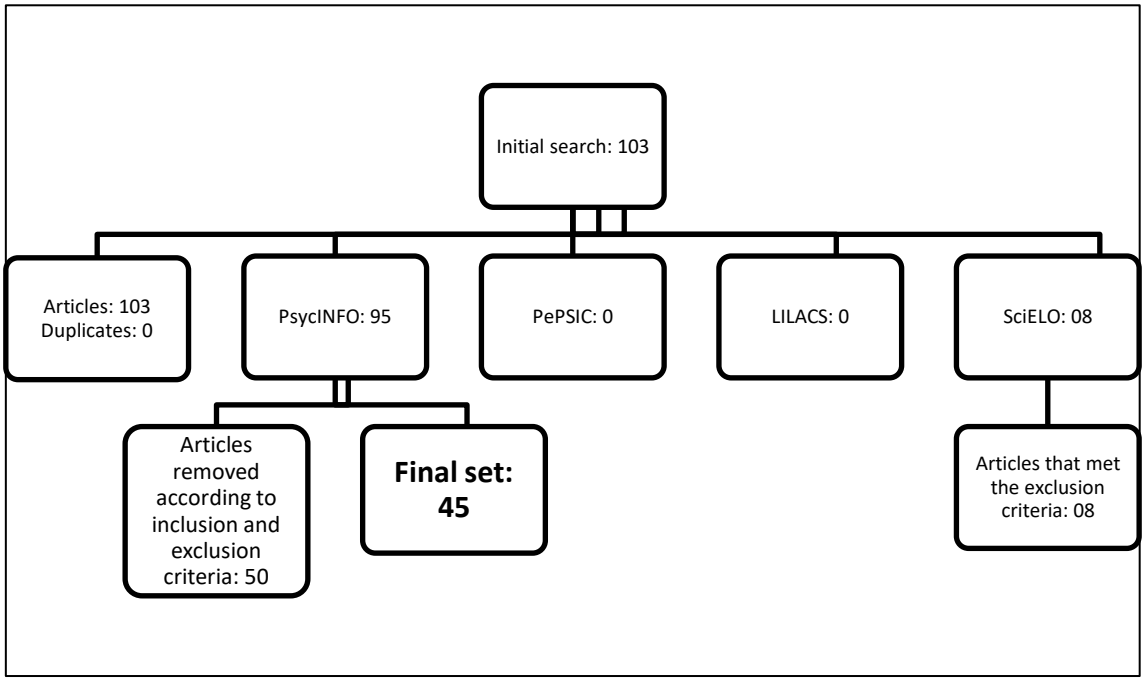
Procedure

Two independent judges conducted the search in July 2018. Disagreements were resolved after a second analysis and discussion between the two judges. In a second stage, with the help of the software Mendeley, titles and abstracts were analyzed using the inclusion and exclusion criteria.

Finally, the selected articles were read in full and analyzed according to the following categories of analysis: a) country where the study was conducted; b) journals where the articles were published; c) participants' characteristics (e.g., age, socioeconomic status, ethnicity); d) research design; e) type of selective trust task used; f) independent variables or variables of interest, in the case of correlational studies; g) main findings.

Results and discussion

Figure 1. Flowchart of the article selection process.



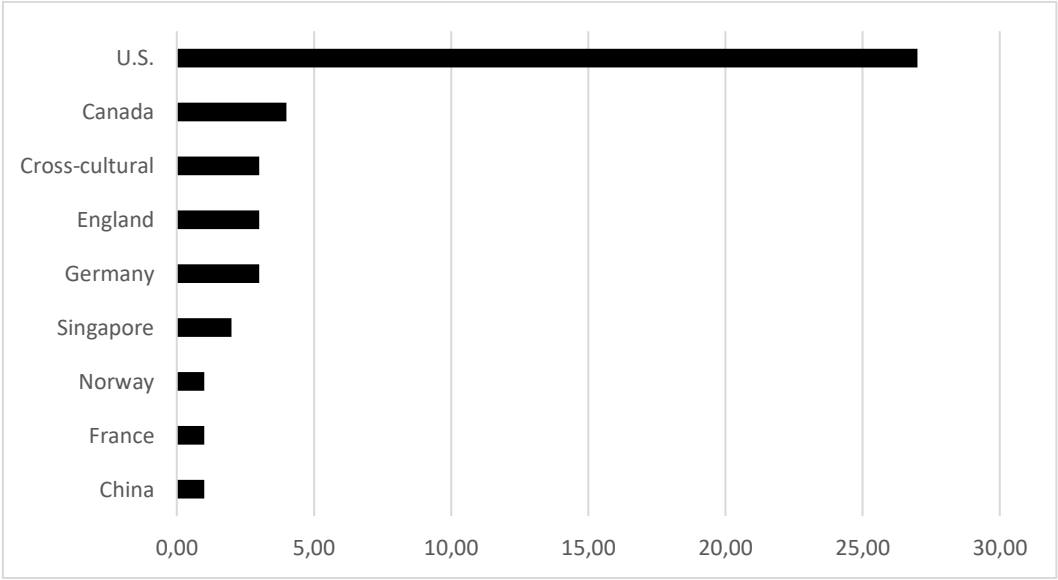
Source: The authors.

The search resulted in a total of 103 articles, 95 of those were obtained from the PsycINFO database and 08 from the SciELO database, but no duplicates were found. No results were found in the other two databases (PePSIC and LILACS) using the predefined search terms. Of the 103 articles, 58 were excluded based on the inclusion and exclusion criteria (50 excluded from PsycINFO and 08 from SciELO). The total number of articles read in full and analyzed, therefore, was 45 (Figure 1).

It is possible to observe an important growth in the number of scientific articles published on the topic of selective/epistemic trust in the last five years of the period investigated (2008-2018). In the first five years of the pre-defined period for this systematic review (2008 to 2012), the total number of published articles that met our inclusion criteria was 6. In the following five years (2013 to 2017), this number was 5 times higher: 30 published articles. In the first half of 2018 alone, 6 articles were published on the topic.

The vast majority of studies were conducted by researchers from different laboratories in the United States (27 of the 45 studies analyzed; 60%). Figure 2 illustrates the distribution of studies by country. It is important to note the three cross-cultural studies: one involved data collection in the U.S. and another in Germany; a second compared children from China, Turkey and England; and a third included data collection in the U.S. and in China.

Figure 2*.* Distribution of studies according to origin/country.



Source: The authors.

As can be seen in Table 1, the selected articles were published in 16 different journals, and 9 of them (56.3%) were from the Developmental Psychology field (e.g., *Child Development, Developmental Psychology, Cognition and Development, Journal of Experimental Child Psychology*). According to the latest QUALIS classification of journals, 4 of the 16 journals (25%) are A1, however, the other 12 journals have not been evaluated, which only suggests that Brazilian researchers have not published in these journals (of the 12 unclassified, 6 are from the developmental area). The appendix contains the references in Table 1 that were not cited throughout the present article.

Table 1. Distribution of articles by journal

Journal (Qualis)	Number of articles	References
British J. of Devt. Psychology (A1;FI: 1,54)	2	Brosseau-Liard, Penney, & Poulin-Dubois, 2015; Vanderbilt, Ochoa, & Heilbrun, 2018
Child Development (FI:5,02)	4	Lane, Wellman, & Gelman, 2013; Lane & Harris, 2015; Ronfard & Lane, 2018; Isella, Kanngiesser, &Tomasello, 2018
Cognition (A1; FI: 3,54)	4	Mascaro & Sperber, 2009; Gweon, Pelton, Konopka, & Schulz, 2014; Landrum & Mills, 2015; Stephens & Koenig, 2015
Journal of Cognition and Development (IF: 1,84)	3	DiYanni, Nini, Rheel, & Livelli, 2012; Danovitch &Alzahabi, 2013; Kim & Harris, 2014
Cognition and Emotion (IF: 2,37)	1	Gillis & Nilsen, 2017
Cognitive Development (IF: 2,06)	2	MacDonald, Schug, Chase, & Barth, 2013; Palmquist & Jaswal, 2015
Cognitive Science (IF: 2,25)	1	Kim, Paulus, & Kalishc, 2017
Developmental Psychology (IF: 3,34)	10	Fitneva & Dunfield, 2010; Chan & Tardif, 2013; Doebel & Koenig, 2013; Kushnir, Vredenburgh, & Schneider, 2013; Liu, Vanderbilt, & Heyman, 2013; Lucas, Lewis, Pala, Wong, & Berridge, 2013; Scofield, Gilpin, Pierucci, & Morgan, 2013; Hermes, Behne, & Rakoczy, 2015; Hagá & Olson, 2017; Kushnir & Koenig, 2017
Developmental Science (IF: 4,10)	2	Kinzler, Corriveau, & Harris, 2011; Hermes, Behne, Bich, Thielert, & Rakoczy, 2017
Evolution and Human Behavior (IF: 2,96)	1	Turner, Giraldeau, & Flynn, 2017
Frontiers in Psychology (A1; IF: 2,13)	1	Mills & Landrum, 2016
Infant and Child Development (IF: 1,22)	3	Brosseau-Liard, 2014; Einav, Rydland, Grover, Robinson, & Harris, 2018; Vanderbilt, Heyman, & Liu, 2018
Journal of Exp. Child Psychology (A1; IF: 2,98)	8	Fusaro, Corriveau, & Harris, 2011; Li, Heyman, Xu, & Lee, 2014; Taylor, 2013; Rakoczy, Ehrling, Harris, & Schultze, 2015; Bascandziev & Harris, 2016; Palmquist, Jaswal, & Rutherford, 2016; Li &Yow, 2018; Yow & Li, 2018
Psychological Science (IF: 4,90)	1	Einav & Robinson, 2011
Quarterly J. Exp. Psychology (IF: 2,49)	1	Barth, Bhandari, Garcia, MacDonald, & Chase, 2014
Social Development (IF: 1,81)	1	Einav, 2018

According to the Journal Citation Reports 2018 (Clarivate Analytics, 2018), four of the 16 journals (25%) have an impact factor ranging from 1 to 2 (*British Journal of Developmental Psychology, Journal of Cognition and Development, Infant and Child Development, Social Development*); seven (43.75%) have an impact factor ranging from 2 to 3 (*Cognition and Emotion, Cognitive Development, Cognitive Science, Evolution and Human Behavior, Frontiers in Psychology, Journal of Experimental Child Psychology, Quarterly Journal of Experimental Psychology*); two (12.5%) have an impact factor that varies between 2 and 3 (*Cognition, Developmental Psychology*); two (12.5%) between 4 and 5 (*Developmental Science, Psychological Science*) and only one of the articles (6.25%) reached an impact factor above 5 (*Child Development*).

Most selected studies had samples in the range of 50 to 150 participants (n = 28; 62.2%), followed by studies with samples of more than 150 participants (n = 13; 28.9 %) and finally those with less than 50 participants (n = 4; 8.9%). The paper reporting the largest sample (496 participants) consisted of a sequence of 5 studies conducted exclusively with Chinese children (Li, Heyman, Xu, & Lee, 2014). Among the articles that included information on ethnicity and socioeconomic status (n = 33), the vast majority reported that the sample was composed predominantly of white (87.9%) and middle-class (76%) children. Out of the 45 studies, 30 (66.7%) had only preschool children (3 to 6 years old) as participants; another 10 studies included school-age children (22.2%) and, finally, 5 of them included a comparison group of adults (11.1%).

It is important to note that most of the selected studies (n = 43; 95.6%) used cross-sectional designs to investigate possible age differences in performance in selective trust tasks. The other two studies evaluated a single age group: 4-year-old children (Kushnir & Koenig, 2017; Palmquist & Jaswal, 2015). In addition to the interest in the possible age effects, two of the 45 studies (4.4%) were also correlational in nature, investigating possible associations between performance in selective trust tasks and other measures. One of these studies (Lucas, Lewis, Pala, Wong, & Berridge, 2013), conducted in three different countries (Turkey, China and England), had false belief attribution, executive function and selective trust as their main measures. In another study (DiYanni, Nini, Rheel, & Livelli, 2012), researchers explored relationships between performance in the selective trust task, in theory-of-mind tasks and in an imitation task with an adult model.

An analysis on informant type (e.g., humans, animals or others) was also conducted. Among the selected studies, 33 (73.3%) used humans as informants in the selective trust task; eight (17.8%) used animals (puppets or dolls); one study (2.2%) included both and three studies (6.7%) had other types of agents as informants: schematic figures with a triangle or an elliptical head, computers and Elmo from Sesame Street. Still in relation to the procedure, 21 of the 33 studies with human informants (63.6%) used videos and/or photos to present the characters; another eight studies from this same group (24.2%) used puppets or dolls and four (12.1%) used drawings and stories.

Twenty-eight studies (62.2%) used the classic selective trust task, which involves presenting a contrast between two types of informants. Eleven studies (24.4%) used another paradigm in which a single informant is presented and the child needs to make decisions about whether or not to accept the information provided by him/her (single speaker paradigm). Three papers included both paradigms in different studies and three used other formats: one contrasted three informants (one consistent, one inconsistent and the other neutral; Gillis & Nilsen, 2017) and two other studies contrasted two groups of informants (Barth, Bhandari, Garcia, MacDonald, & Chase, 2014; Einav, 2018).

The variables investigated in the 45 studies were grouped into three distinct categories: a) participants' cognitive, socio-cognitive and linguistic skills (e.g., attribution of false belief, attribution of intention, executive function, being a speaker of a language that uses evidential constructions); b) characteristics or attributes of the informants (e.g., honesty, kindness, physical strength, beauty, their history of success or previous trustworthiness); c) characteristics of the communicative context (e.g., if the information is transmitted orally or in written text, if the informant points or names, if the information offered was obtained by direct observation or via the testimony of third parties).

Three studies specifically investigated possible associations between the ability to attribute false belief and selective trust. In a correlational study, DiYanni et al. (2012) used theory-of-mind tasks (two 'unexpected content' and two 'change-of-location') and children's performance in these tasks was positively correlated with selective trust performance. Surprisingly, 5-year-olds' performance in the selective trust task was negatively correlated with their performance on an imitation task during which the adult model made inappropriate tool choices. A possible explanation for this unexpected result, according to the authors, is that older children are more sensitive than younger ones (3- and 4-year-olds) to possible cues of unintended behavior from the adult model (e.g., after choice, he/she said 'Oops!'). Thus, 5-year-olds may be more lenient toward the inappropriate model because they can understand that a mistake occurred.

In 2013, Lucas and collaborators investigated associations between selective trust, false belief attribution and executive function in three different cultural groups: Turkish, English and Chinese children. The comparison with Turkish children was particularly informative because the Turkish language includes evidential constructions, that is, prefixes and suffixes can be used to identify the source of the information: if the information was obtained through evidence, from testimony or through deduction without available evidence. At the same time, previous studies suggested that Chinese children perform better in executive function tasks, which made this cultural comparison a valuable opportunity. In alignment with the previous study, a positive correlation between false belief and selective trust was found, but, contrary to expectations, performance in executive function tasks was not correlated with participants' selective trust.

Brosseau-Liard, Penney and Poulin-Dubois (2015), in turn, using a multilinear regression analysis, found that the performance in theory of mind tasks was a predictor of selective trust in the accuracy task (the child had to choose between two informants who differed in terms of their accuracy rates during an object naming task), but was not a predictor of performance in a strength task (the child had to choose who would lift a box: the strong or the weak individual).

Two other studies investigated possible effects of children's ability to attribute intentions to informants. Mascaro and Sperber (2009) found that even 3-year-old children take into account the informant's intention (beneficial or malevolent) in their trust judgments. Malevolent informants are not favored, and this pattern seems to be more evident starting at age 4. Vanderbilt, Heyman and Liu (2018)'s findings, in turn, suggest that 3- and 4-year-old children place less trust in informants who demonstrate ignorance than in informants who clearly intend to deceive others. The level of distrusting 4-year-olds is even higher than in the younger children.

The vast majority of studies found in the present review, however, investigated possible effects of different informants' characteristics used in selective trust tasks. Seven studies explored the role of informants' previous success and error rates in participants'

judgments. One of these studies was innovative as it investigated whether children detect when the agent/informant omits important information and whether they take this omission into account to guide their decisions (i.e., whom to trust) and their future behaviors (Gweon, Pelton, Konopka, & Shulz, 2014). Another original study investigated the relative value of the function of the informant's action in the familiarization phase (whether the action generated positive results or not) and how conventional the action was (Scofield, Gilpin, Pierucci, & Morgan, 2013). More specifically, children aged 3 and 4 in this study preferred an informant who was unconventional (i.e., did strange things like lifting the lid of a box with his elbows and not with his hands), but managed to achieve his/her goals and not the one who was conventional (i.e., did as expected), but was never successful.

Some studies have investigated the limits and scope of the informants' level of expertise. Lane and Harris (2015), for example, found that even 3-year-olds already demonstrate a clear preference for an informant who seems to be an expert on the subject in question. At the same time, these researchers found that, with age, children begin to give more importance to an assessment of how intuitive their informant's statement is. When he/she makes counterintuitive claims (e.g., "*Pleaks* are small objects. [...] If someone puts a *pleak* on the table, it will float on the table"), he/she is considered less trustworthy.

Kushnir, Vredenburgh and Schneider (2013) investigated the type of knowledge demonstrated by the informant. An informant who knew the names of new toys, but did not know how they worked, was preferred in naming tasks. In tasks that required the operation of new toys, children preferred the informant who did not know the name of the toys, but who had figured out how the toy worked.

Several studies have tested possible effects of different informants' attributes or traits on selective trust. Taylor (2013), for example, investigated the role of informant's gender. Two actors (one female and one male) were contrasted in four different conditions. In one condition, the female informant correctly named familiar objects, whereas the male informant named them incorrectly. In a second condition, the man was the accurate informant and the woman was the inaccurate. In the third condition, both named the objects correctly, and finally, in the fourth condition, the two informants gave incorrect names to the objects. Results showed that preschool children privilege informants' previous history of success, however, when accuracy rates are the same, children show a clear preference for the person of the same gender.

Another study that follows this direction is Bascandziev and Harris' (2016). With a sample of 132 participants aged 4 and 5, these researchers tested the effect of informants' attractiveness on trust judgments. In condition A, the two informants were equally attractive, but differed in terms of previous accuracy; in condition B, informants had the same accuracy history, but one was more attractive than the other; and finally, in condition C, informants differed both in accuracy and in attractiveness. When informants were equally attractive, children preferred the more reliable informant, however, when informants had the same accuracy rates, the preference was for the more attractive. Contrary to the authors' predictions, results from condition C suggest that children prefer the more attractive informant, even when he/she makes more mistakes than the less attractive informant.

Following the same direction, Kinzler, Corriveau and Harris (2011) demonstrated that children aged 4 and 5 prefer informants who are native speakers when they are compared to foreign informants who speak their native language with an accent, even when the two informants provide correct and comprehensible information.

Li et al. (2014), in turn, investigated possible effects of informant's honesty on selective trust in a sample of 496 Chinese children. Results from five studies reported in this article suggest an important developmental process: 4-year-olds are already able to distinguish honest from dishonest informants, but still have difficulty discriminating between honesty and another irrelevant dimension such as cleanliness. More specifically, unlike younger children, 5-year-olds tend to trust honest characters more than clean informants and are more suspicious of dishonest in comparison to unclean informants. In their decisions about whom to trust, they also show preference to characters who are unclean and honest over those who are clean but dishonest.

In a sequence of three studies, Isella, Kanngiesser and Tomasello (2018) investigated another attribute of the informant that seems to influence trust judgments in young children: the consistency between what they promise and what they do. In a first study, 6-year-old participants showed a clear preference for characters who had previously kept their promises. In the second study, 5-year-old participants selectively trusted informants who had fulfilled a prosocial promise (i.e., the character had promised his friend to water his plants because he had to go to school and had no more time). In the third study, 5-year-olds showed preference for the character who had kept a prosocial promise over the one who helped to water the plants, but who had not made any previous promises (helper).

Also in the category of informant's attributes, a study that deserves mentioning is MacDonald, Schug, Chase and Barth's (2013). The results of this study suggest that 4-year-olds selectively trust a more reliable informant when he/she is contrasted to a less reliable one and when both are part of the same group as the child (groups are sorted using an irrelevant criterion: shirt color). When the most reliable informant is in the other group (e.g., he/she is in the red shirt group and the informant is in the blue shirt group), children show preference to the member of their group, even if he/she is less reliable. In summary, the belonging of an informant to the same group as the child (even when groups are created based on an arbitrary and irrelevant criterion such as shirt color) compromises selective trust judgments.

Finally, in the category of studies investigating the role of aspects of communicative context, we call attention to two studies. Palmquist and Jaswal (2015) demonstrated that 4-year-old children already recognize the function of different forms of providing information. More specifically, they prefer an informant who has a history of correctly pointing to objects (when requested) than someone with an unreliable history in a task during which hidden objects need to be found. However, there is also an interesting asymmetry with regard to the way information is presented, that is, whether the information is provided by the pointing behavior or whether it is provided by the naming of objects (pointer x labeler). Children expect that someone, who correctly names objects, is also someone who correctly points to where objects are hidden; on the other hand, they do not expect that someone who has a history of pointing correctly will also be good at naming objects.

In a similar direction, Stephens and Koenig (2015) presented children aged 3 and 4 a scenario during which two informants provided testimonies about the names of objects (semantic condition) or about the place where they should be (episodic condition). Children in the semantic condition, who were exposed to an informant who incorrectly named an object, had the expectation that the informant would make mistakes both when the requested information was semantic (i.e., object naming) and when it was episodic (i.e., object location). Nevertheless, when children were exposed to an informant who made mistakes about where the objects had been placed (episodic condition), they did not

necessarily extend this surveillance to the other domain. In other words, they did not think this informant would necessarily also name objects incorrectly.

Final considerations

The present systematic review suggests that the phenomenon of selective/epistemic trust is of particular interest to Developmental Psychology. However, the vast majority of studies conducted in the last ten years were with English-speaking children, and the samples consisted predominantly of white and middle-class children. There is, therefore, an important gap in the accumulated knowledge about the phenomenon. It is possible that the developmental pattern observed in the selected studies, as well as the effect of the variables tested, may be different in children who speak other languages (cf. Lucas et al., 2013), who belong to other cultural, ethnic and socioeconomic groups. Results clearly point to the need of expansion and diversification of samples in order to advance knowledge about this development process.

Although it is necessary to recognize the still limited power of a possible generalization, the data presented here suggest that important changes in epistemic trust judgments occur during the preschool period. If, on the one hand, there is robust evidence that, contrary to a predominant belief in many cultures, very young children are not naive consumers of information (i.e., that they believe everything they hear), it seems that the acquisition of some sociocognitive skills (e.g., attribution of false belief, attribution of good or bad intentions, the ability to evaluate their own knowledge and that of others) explains, or at least, is associated with important advances in children's epistemic surveillance during this specific period of development.

In response to the first question raised in this review on the development of selective trust in preschool years, the articles, together, reveal that 3-year-olds are already able to track informants' accuracy history and this tracking does not depend on how information is conveyed (e.g., oral or written information; Vanderbilt, Ochoa, & Heilbrun, 2018). At the same age, they are also able to discriminate an informant with bad intentions from another who has good intentions (Mascaro & Sperber, 2009). They also prefer informants who seem to have knowledge or expertise on the subject in question (Lane & Harris, 2015) and take into account an informant's previous success rate, choosing someone who demonstrates having been more successful in their actions, even when these actions seem strange or unconventional (Scofield et al., 2013).

The trust judgments of 3-year-olds are still limited, probably due to a still incipient theory of mind (e.g., Brosseau-Liard et al., 2015; Lucas et al., 2013). For example, 3-year-olds seem to believe that people who have positive attributes (they are cool, smart or honest) will also have more knowledge, even when they demonstrate they do not have relevant information (Lane, Wellman, & Gelman, 2013). They still find difficulty in differentiating honesty from an irrelevant attribute such as cleanliness in a selective trust task (Li et al., 2014). Finally, they are less skeptical than their school-age peers when the informant makes claims that violate their intuitions (Lane & Harris, 2015).

The studies reviewed here reveal that both informants' attributes or traits and aspects of the communicative context have effects on children's decisions in new learning situations which depend on informants. It is worth noting here studies investigating informants' attractiveness (Bascandziev & Harris, 2016), his/her honesty or dishonesty (Li et al., 2014),

his/her gender (Taylor, 2013), positive attributes such as being cool and intelligent (Lane et al., 2013), prosociality (Palmquist, Jaswal, & Rutherford, 2016), his/her accent (Kinzler et al., 2011), the consistency between promising and keeping the promise (Isella et al., 2018) and even beliefs in magical events (Kim & Harris, 2014). Furthermore, results suggest that children's epistemic vigilance becomes stronger as children progress in their socio-cognitive development, especially with regard to theory of mind (e.g., Brosseau-Liard et al., 2015).

In summary, the field of studies on epistemic trust has shown that, much earlier than imagined, children are competent enough to select reliable sources of information and they take into account various elements (e.g., informants' characteristics, information modality, previous success and accuracy) in new learning situations. On the other hand, the evidence also suggests that as they grow up, children become more and more critical in their consumption of information.

These results, therefore, point to a very active field of study in Developmental Psychology and a promising line of research for Human Development science in Brazil. It is important to note, however, that the number of studies on the topic published in the period from 2008 to 2018 is probably much higher than the number presented here. This difference is due to the fact that many studies investigating selective/epistemic trust include other terms as descriptors or keywords, such as accuracy (e.g., Corriveau et al., 2009), informants (Van Reet, Green, & Sobel, 2015) or children's information and attitudes (Bascandziev & Harris, 2014). Despite this limitation, the fact that there is more research on the topic makes the value of this field of study evident. We hope, therefore, that this systematic review will attract more Brazilian researchers to the phenomenon of selective trust and its origins.

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Débora de Hollanda Souza: Ph.D. in Developmental Psychology from the University of Texas at Austin. Associate Professor, Psychology Department, UFSCar, Professor from the Graduate Program in Psychology (PPGPsi/UFSCar), member of the National Institute of Science and Technology on Behavior, Cognition and Teaching (INCT-ECCE) and coordinator of the Research Group on Sociocognitive and Language Development. https://orcid.org/0000-0003-1100-4755

Ana Carolina Messias: Master in Psychology from Universidade Federal de São Carlos (UFSCar). Ph.D. student from the Graduate Program in Psychology (PPGPsi/ UFSCar) and member of Research Group on Sociocognitive and Language Development. http://orcid.org/0000-0002-8462-0949