

1994 a

Magical feeling and thinking in childhood and adolescence: a developmental perspective

Heinz Streib

This article presents a critique and modification of the understanding of magical thinking as it is taken for granted and has influenced developmental theories of faith or religion and religious education. It is argued that magic is not the world view of children only. Magic cannot be confined to the early stages of development. It remains one of the forms of logic in adolescence and adulthood. This point of view is supported by the recent discussion on magic in ethnology. Moreover, recent reflection and research in developmental theory suggests a revision of the devaluation of magical thinking. This has implications for religious education: to pay attention to and to nurture the continuity and the transformation of magical thinking.

Although we are all familiar with magic, most people in Western societies pretend to 'know' nothing about it most of the time. Following the development of scientific rationality, adults in our culture are supposed to have developed beyond the magic stages of thinking. Nevertheless, the Western scientific elite apparently 'knows' something about magic; scientists appear to be able to comprehend and to identify magic - the more distant the perspective, the more precisely. I focus here on developmental psychology, since a perspective on magical feeling and thinking in childhood and adolescence cannot preclude the developmental aspects: there is development in magical feeling and thinking and it has to be accounted for. Piaget's perspective seems to be the leading one in regard to magic. Therefore the point of departure for this study has to be Piaget and the theories expressing the cognitive-structural paradigm.

1 PIAGET - MAGIC IN A COGNITIVE-STRUCTURAL PERSPECTIVE

If we accept Piaget's discovery of the development of logical operations in children and adolescents, it leads us to discern different ways of understanding. In the understanding of Biblical stories for example, especially of miracle stories, a pre-causal or magical understanding is followed by a concrete-operational explanation of miracles. This can be demonstrated, as widely known, for the story of the burning bush or of Jesus walking on the water. A competence to de-mythologise and to explain the scope and functions of such stories involves still higher logical operations.

However, the Piagetian sequence of logical development seems to encounter problems which cannot easily be explained within his framework. How should we

211

understand instances of re-enchanting our world? How do we explain that adults who supposedly reached or developed beyond concrete-operational logic favour 'alternative' ways of healing, seek magical healing. How are we to understand adolescents who are trained in mathematics and physics and are working with computers and who nevertheless become fascinated with the occult, ask ghosts for answers to life's questions and experiment with magic?

Certainly, Piaget's view of structural development of cognition belongs to the most revealing scientific discoveries in our century. His work is a great collection of examples for magical thinking in childhood. This is not the place to deal extensively with his theory or to quote examples; I only want to highlight a basic feature of his perspective and raise some questions.

Piaget views the intellectual development of the child as a journey from egocentrism toward increasingly higher decentration. The child perceives himself or herself as the centre of the world. At first, the child's ego and the child's tools of thinking are perceived as merged with the world. Later, the child is able to separate and differentiate. In this process, Piaget (1951) distinguishes four stages:

- 1 The tools of thinking are not differentiated from the things (*absolute realism*);
- 2 The tools of thinking are distinguished from the things, but projected into the things (*immediate realism*);
- 3 Thinking is assumed in both one's own body and the things in the outer world (*mediate realism*);
- 4 The differentiation between inner thinking and outer reality has been accomplished (*subjectivism or relativism*).

This perspective of cognitive development, however, also suggests the development of magical thinking and its decline. Piaget identified magical thinking with feelings of 'participation' which lead the child to an 'animistic' understanding of the world and to 'artificialism' in regard to the origin of things (Piaget, 1951; 1967). *Participation* is defined (with Levy-Bruhl) as mutual influence of phenomena or things which have no spatial or causal relation. *Magic* then is the use of the relations of participation to change reality. *Magic* and participation however have a twofold source: in regard to the *inner* order, the 'realism' which means the fusion of thinking with the things and of the ego with the outer world, and, in regard to the *social* order, the transference from the relations to persons onto the immediate environment of the physical world. *Animism* is the view that all things in the world are bestowed with 'life' and 'consciousness'. Animism is a derivative of participation, since, under the impact of the differentiation between ego and world, the ego is seen as equipped with magical power and the things in the outer world equipped with consciousness and life. *Artificialism* is a view about the origin of the things: they are the product of 'human' handicraft. Artificialism is merged with magic and with animism at first. However, it is the way out of the magic world, because later, after age 7 or 8, 'artificialism' is decreasing and falls into contradiction with the animistic understanding.

Piaget discerns four levels of 'artificialism':

- 1 *diffuse artificialism*: animism and artificialism and magic merge;
- 2 *mythological artificialism*: giving words and stories to the feelings of participation;
- 3 *technical artificialism* (age 7/8 to 9/10): under the influence of increasing understanding of technical-mechanical causality, the 'artificialism' decreases (is not applied to every 'thing') and begins to contradict animistic understanding;
- 4 *immanent artificialism* (9/10+): 'nature' is thought to be the artist (sculptor) who created things.

The final level of 'artificialism' allows us to construct 'identifications' between things: for example, stones and soil are two aspects of the same substance; air can be the source of steam or water and of fire; lightning is a metamorphosis of the clouds or smoke into fire and so on. On this final artificialistic level, Piaget finds the steps toward further development. They mark the transition from pre-causality - which Piaget calls 'artificialistic causality' - to the 'higher' forms of causality.

Why is magic abandoned? For Piaget, it is not direct experience, nor is it pedagogical instruction, which leads the child to abandon animism, artificialism and magic. It is due to mental changes, that is, decreasing egocentricity, and social changes, that is, separation from the parents. After a certain age, the parents are no more seen as almighty, and the things in the world seem not to care about the ego so much. Hence the animistic, artificialistic and magic world views do not provide adequate tools for coming to terms with the world.

2.1 QUESTIONS REGARDING THE DECLINE OF MAGIC IN INDIVIDUAL DEVELOPMENT

Here, however, at the point of transition, the most interesting questions arise. Piaget himself called the occurrence of spontaneous magic in adulthood the 'counter-evidence' - without a comment about the implications for his developmental perspective. He mentions the occurrence of involuntary imitation, uneasiness, and 'monoideistic wishes'. Even though his examples of magic in adulthood highlight rather the residual magic in the marginal 'irrationalities' in everyday behavior, Piaget draws far-reaching conclusions.

Every realism² leads to magic. In adulthood there remains a residual of such realism in imitation, in anxiety and in wishing. This realism prompts, even though much less extensively than for the child, some clear attitudes of participation and even magic. (Piaget, *Das Weltbild des Kindes*, 1988, p.155, my translation)

If however, we do not accept the limited focus of Piaget's examples and take account of the occurrence of magic in adult thinking as a basis for world view and for the

apprehension of 'reality', the 'counter-evidence' is even stronger. Is the Piagetian paradigm counter-evidenced by the fact that magical thinking and feeling is still operating in the concrete-operational and even in the formal-operational stage of development? The examples are abundant. Adults may favour esoteric ideas, 'alternative' ways of healing, but also the 'spells' to create economic welfare in eastern Germany. For young people, one example of such magic 'residuals' is occult practices. Is it a counter-evidence to Piagetian theories, when young people who are assumed to have reached at least the concrete-operational stage of cognitive development 'are playing with the devil' (Sparkes, 1989) and with the ghosts, and engage in occult practices?³

Two explanations seem possible: either the Piagetian paradigm - at least the principles for the logic of development: irreversibility and sequentiality - are counter-evidenced and we have to admit that there is regression in development onto earlier stages; or there are factors other than 'operations of logic' in the Piagetian sense and the development involved which we have to account for. The latter would imply not only a 'milestone sequence,' but a multi-factorial perspective on development. Before hinting at such an enlarging of the perspective to include more dimensions, let me suggest a first step: could it not be that magic continues to be part of life and thought, merely changing its form according to the mental capacities of thinking and perception? Could it not be that magical feeling and thinking changes, in a stage-like development of 'artificialisms,' beyond Piaget's stage of 'technical artificialism' so that something like the 'immanent artificialism' remains one of our adult 'forms of logic'? What is the reason for the hesitation in calling a world view 'magical', when it presents God as companion to whom we can talk and pray, a magic world view which co-exists with the competence to use early formal operations?

My question is not, in the first place, whether Piaget's understanding of cognitive development is correct, and whether it can be verified by empirical research.⁴ The question is rather whether Piaget's perspective describes the whole story of magic and its development in childhood and adolescence. To ask my question more specifically, are the 'magical' (animistic and artificialistic) explanations on the one hand and explanations in terms of physical-technical causality on the other alternatives? Can they be used simultaneously without paying attention to their logical relation? Are they complementary explanations which can be related to each other consciously?⁵

In their research, Buggle and Westermann-Duttlinger (1987) confirm the Piagetian assumption: they found that the majority of the 5- and 6-year-old children they interviewed gave animistic answers, while in their group of 7- and 8-year-olds the majority of answers were non-animistic. But their more important result is that animistic answers are not a universal reaction scheme, but always occur together with non-animistic answers. Children at a young age are able to put causal explanations alongside their animistic answers. Buggle and Westermann-Duttlinger (1987, p.19) therefore hypothesise that animistic thinking may be not merely a temporary stage in development, but a form of conceptualisation still important in adulthood. Buggle (1987) further presses the question of whether animism is only a cognitive phenomenon and maintains that the 'animistic' language, for example the animistic metaphors in Goethe's work, cannot be explained and reduced to mere metaphorical or aesthetical intentions. There may exist, besides the 'officially' correct interpretation of the world by natural science, an interpretation of

nature which satisfies the longings for a world which has a soul and with which we can communicate. This animistic interpretation may be nurtured by the fear of loneliness and apathy in society. Buggle concludes:

Animism is not merely a developmental and cognitive deficiency phenomenon, but an alternative form of world perception and world interpretation which is determined by a series of different variables, especially wishful thinking . . . and which we encounter not only in children, but also in informed adults besides or in combination with physicalistic explanations of reality . . . (Buggle, 1987, p.34, my translation)

3 MAGIC AS A GENUINE CO-EXISTING DOMAIN OF 'LOGIC' - CONTRIBUTIONS FROM ETHNOLOGY

This may be the point to introduce the ethnological discussion about magic. The understanding of magic as the lowest stage of a developmental scale is not unique to psychological theories of cognitive development. What Piaget outlined in ontogenetic perspective reflects the traditional evolutionary perspective in ethnology and sociology of religion, which presents a sequential relation between magic, religion and science. Despite the differences in their perspectives, Weber (1958 [1905]; 1961 [1919]), Durkheim (1915 [1912]), and Malinowski (1954 [1925]) look 'down' on magic from a standpoint of (Western) 'rationality' which is rather identified with technical rationality. Hence, magic appears as 'pseudo-science,' as 'irrational' and 'primitive'. Malinowski's comment on the crudity and irrelevance of magic can serve as an example.

Looking from far and above, from our high places of safety in developed civilisation, it is easy to see all the crudity and irrelevance of magic. But without its power and guidance early man could not have mastered his practical difficulties as he has done, nor could man have advanced to the higher stages of culture. (Malinowski, 1954, p.90)

A fresh approach is introduced, in the ethnological discussion by Evans-Pritchard (1990 [1937]). This is based on his rich field experience in Azande communities. Evans-Pritchard found that Azande witchcraft and magic has a logic of its own.

The Zande mind is logical and inquiring within the framework of its culture and insists on the coherence of its own idiom. If witchcraft is an organic substance its presence can be ascertained by post-mortem search. If it is hereditary it can be discovered in the belly of a close male kinsman of a witch as surely as in the belly of the witch himself. (Evans-Pritchard, 1990, p.16)

Evans-Pritchard contends that the Azande use two kinds of logic, not in contradiction to each other, as for example demonstrated in their medicine.

Azande attribute nearly all sickness, whatever the nature, to witchcraft or sorcery: it is these forces that must be worsted in order to cure a serious illness.

This does not mean that Azande entirely disregard secondary causes but, in so far as they recognize these, they generally think of them as associated with witchcraft and magic. Nor does their reference of sickness to supernatural causes lead them to neglect treatment of symptoms any more than their reference of death on the horns of a buffalo to witchcraft causes them to await its onslaught. On the contrary, they possess an enormous pharmacopoeia (I have myself collected almost a hundred plants, used to treat diseases and lesions, along the sides of a path for about two hundred yards), and in ordinary circumstances they trust to drugs to cure their ailments and only take steps to remove the primary and supernatural causes when the disease is of a serious nature or takes an alarming turn. (Evans-Pritchard, 1990, p.195)

The primary aim of magic practice is not to effect changes in the objective, concrete world, but to defend against mystical influences and impediments.

. . . its main purpose is to combat other mystical powers rather than to produce changes favorable to man in the objective world. (Evans-Pritchard, 1990, p.199)

As a further refinement of Evans-Pritchard's perspective, Tambiah (1968; 1973; 1990) suggests understanding the 'logic' of magical assumptions and actions and the 'power' of magical words in the terms of linguistic theory. From his perspective, the kind of 'logic' which magic involves can be made more plausible. The contrast with technical 'logic' comes into sharper relief. In contrast to technical action, magic belongs in the domain of 'meaning making', of anticipating the future, of 'rationalising' the past, of coping with existential problems.

Analogical thought of Western science and of primitive ritual have different implications. Like 'illocutionary' and 'performative' acts ritual acts have consequences, effect changes, structure situations not in the idiom of 'Western science' and 'rationality' but in terms of convention and normative judgment, and as solutions of existential problems and intellectual puzzles. These orders of thought and action after all are to be found in Western societies as well - they co-exist with science and thrive outside its field of action or relevance. (Tambiah, 1973, p.226)

This brief reference to ethnology shows that there has been a parallel 'discovery' of an understanding of magic: it involves a 'logic of its own' and belongs to a different domain than the one we are used to defining in terms of technical rationality and causality. Moreover, the two domains of logic appear to co-exist and therefore cannot be understood correctly when arranged in a sequential or hierarchical relation of incompatibility.

4 IMPLICATIONS FOR DEVELOPMENTAL THEORIES OF RELIGION AND FAITH

From this perspective, we have to raise the question of whether it is adequate that in the structural-developmental theories of *religion and faith* the Piagetian notion of magic is usually adopted and taken for granted. *Feelings of participation, animistic*

understanding of the world, and 'artificialism' are features of the lower stages of development. Such magical thinking and feeling is abandoned and overcome by subsequent and irreversible transitions in structural development. The development of faith and religion is aligned with the *cognitive-structural* perspective which explains the development of causal relations, for example in mathematics or physics.

In comparison with that of Fowler (1981), Oser's (1988; Oser and Gmünder, 1984) perspective on religious development seems to be more in line with the Piagetian paradigm. This is true despite the fact that his theory emphasises new dimensions and claims to analyse religion as a unique domain. It may be that Döbert's (1991) criticism, that Oser's Stage Three is a dead-end for religious development, has some ground. Does development not consistently lead to atheism, if goals like 'autonomy' and 'rationalisation' are established? In other words, why should not religion decline, if magic declines or is abandoned after Stage Two?

In adopting a critical perspective on the assumptions about ritualisation and its development in Oser's theory, Heimbrock (1988; cf. 1990; 1991) maintains that there is ritualisation in other developmental stages than merely in Oser's Stage Two. Heimbrock suggests that these can be understood as 'modifications of the specific human capacity to play, in the entire developmental journey,' and as 'purpose-free expressive action.' Therefore, Heimbrock finds Fowler's stages, especially in the aspect of 'Symbolic Function' more adequate than those of Oser, since Fowler assumes a 'post-critical return' to the understanding and use of symbols.

Fowler develops a perspective which departs from Piaget, but, as I understand his theory, includes aspects of 'function' and 'content'. This causes the Piagetian model to twist into a spiral.⁶ Fowler's claim that faith has its own logic which he calls 'logic of conviction' resembles Evans-Pritchard's perspective on magic. Although, in Fowler's work, the puzzle of the two kinds of logic has not been resolved satisfactorily, he develops a more comprehensive perspective. This can be maintained in reference to the dimensions of 'function' and 'content' in 'symbolic functioning'. Fowler's sequence of 'Symbolic Functioning', however, locates the magic-numinous understanding only in Stage One. This implies the decline of magic after the transition to the higher stages.

A first summary: the theories which are rooted in the structural-developmental tradition, but focus on *religion* and therefore cannot easily omit magic, require critical evaluation in regard to the relation between magic and religion, in regard to their understanding of magic as developmentally the lowest stage and in regard to the goal of development: autonomy and reflexivity.

Finally, to enlarge and clarify my own point of view, I tend to agree with Döbert (1991) who argues that, in the analysis of social cognition, moral consciousness, ego-development and religious or faith development, we touch only surface phenomena - except the dimension of the 'deep structures' of cognitive-structural development. This is true also for the understanding of magic, I suppose. Therefore, in regard to magical feeling and thinking, especially in regard to aspects other than cognitive structures, there are more questions than answers. I want to ask some of these questions.

In developmental theories, we observe a preoccupation with the cognitive-structural aspects of development. Is it possible to pay attention to psychosexual and societal factors and to the relation between these other factors, as well? Fowler's theory may be an example of this in the domain of faith development: Although Fowler is aware of various factors for faith and faith development - and he has been explicit about his multi-dimensional perspective, in his *Model of the Dynamics of Adult Faith*⁷ -, the focus of faith development theory (Fowler, 1981) and research (Moseley et al., 1986) shows that it has been elaborated in close affinity with and careful distinction from the cognitive-structural paradigm. As I have done in my dissertation (Streib, 1991) in regard to Fowler's theory, I take the hints toward a multi-dimensional perspective as 'growing edges' from which I expect a more comprehensive and more adequate understanding. A more comprehensive understanding of magical feeling and thinking in childhood and adolescence would have to take psychosexual-unconscious and social-cultural factors into account. Fowler's comprehensive model can be indicative for that. We can refer as well to the perspective of Döbert (1986; 1991) who charges Kohlberg's, Habermas's, and also Oser's theories with disregarding the aspects of 'content' and the societal aspects in their models of development. Döbert holds that it is the most plausible assumption that development involves both, changes of 'structure' and changes of 'content' (cf. Streib 1991, p.182ff). Further, Döbert (1991) calls special attention to the 'functions' which religiosity or morality have to perform. Döbert proposes to understand development not as a sequence of 'stages', but as a 'milestone sequence', which Loevinger (1982, p.167) has described. This could be a starting point for developing a developmental perspective of magic as a *multi-dimensional (multi-factorial)* phenomenon.

The psychosexual factors have special significance for the impact of magic in adolescence. The analysis of the experience of, and ability to deal with, contingencies (experience and function) in the course of psychosexual development has to pay attention to magic and its developmental course. If Blos (1974) is correct that adolescence is the process of a 'second individuation' and involves 'regression in the service of the ego', then the adolescent involvement with magic appears in a different light: could it be that adolescents regress and re-live the encounter with the good and the evil 'ghosts' of their childhood, when they engage in occult practices? This is what Helsper (1992) found in his interpretation of interviews with 'satanistic' adolescents.

5 CONCLUSION

To summarise briefly and precisely my perspective on magical feeling and thinking in childhood and adolescence as it relates to religion and to religious education, I conclude with some theses.

1 Religion and magic

1.1 Religion and magic can be distinguished, but they cannot be separated.

1.2 The religion not only of children, but also of adolescents and adults includes a magical dimension.

1.3 Religion and magic have common ground. One of the expressions of this common ground is their unique kind of logic: the 'logic of participation'.⁸

1.4 Religion cannot be adequately understood in terms of (technical) rationality or in terms of the 'logic of rational certainty' (Fowler). This is true also for magic.⁹

1.5 An understanding of religion and magic involves a kind of (first or second) naivete.

2 Religious development and magic

2.1 Magical feeling and thinking changes in a stage-like development of 'artificialisms'. Beyond Piaget's stage of 'technical artificialism' something like the 'immanent artificialism' remains one of our adult 'forms of logic', namely magical thinking.

2.2 It would be a mis-perception of children and adolescents to analyse their thinking, feeling and acting only with the scientific screen of cognitive-structural development which consistently supposes the 'decline of magic'.

2.3 A developmental perspective of religious development is misleading, when the 'logic of participation' (magic) is seen as only one of the early stages which is left behind in the development of the higher stages.

3 Religious education and magic

3.1 Education should have as one of its aims the promotion of cognitive development; religious education should not hesitate to nurture religious development in the way Fowler and Oser are suggesting.

3.2 However this should not be the primary aim and perspective. Especially in religious education, the primary aim cannot be 'development', if 'development' is understood exclusively in terms of cognitive-structural development.

3.3 The aim of religious education is to nurture the growth - in continuity and change - of faith and religion as children, adolescents and adults grow and change. Further, the aim of religious education is to promote the ongoing development of an ever more adequate understanding of one's own religion.

3.4 If it is true that the 'logic of participation' is one of the dimensions of religion, we should pay attention to this dimension in religious education.

3.5 If it is true that this 'logic of participation' describes common ground between religion and magic, religious education cannot exclude or devalue magic easily, but has to pay attention to its transformations.

3.6 The 'logic of participation' (magic) needs space for its play (*Spielräume*) where it can express itself. This means, for the religious educator, joining the child in his or her embeddedness in the first naivete.¹⁰

3.7 Finally, religious education should accompany persons in their transformation towards further steps in development (for example, towards a second naivete).

NOTES

- 1 Piaget gives no argument for his very limited focus, but calls it 'taken for granted' that he leaves aside 'every "superstition", i.e. every custom or every conviction' and every imagination in 'fantasy and dreams' where 'we find easily many perceptions of participation.' (Piaget, 1951, p.150).
- 2 As explained above, 'realism', for Piaget, is the fusion of thinking with the things and of the ego with the outer world.
- 3 Empirical research shows that 2% or 5% of German adolescents are regularly involved with the occult; fascination and one-time experience with occult practices amount to about 20% or 30% (Mischo, 1991; Zinser, 1990; 1991; Müller, 1989). For a review of empirical research see Streib (1993). Intensive research by means of narrative interviews with 'satanistic' adolescents has recently been completed by Helsper (1992).
- 4 For research on childhood animism before 1969, see Looft and Bartz (1969); Buggle and Westermann-Duttlinger (1987) refer to the more recent research.
- 5 Oser and Reich (1987), in a survey of a small (non-representative) sample analysed the competence to consciously and explicitly employ complementary thinking as a way of relating two 'theories'; they found that under the age of 10 the majority (over 70%) do not, and beyond the age of 10 the majority do consider complementarity of explanations.
- 6 See Fowler, 1981, p.275.
- 7 Fowler's *Model of the Dynamics of Adult Faith* (Fowler, 1982, p.200) integrates the six components which Fowler sees as playing a role in the dynamics of 'faith' into a figure. Here, time and marker events, in the light of which we understand 'what time it is in a person's life', are seen to play a significant role as well as the operational structures of knowing and valuing in 'faith'. The 'structuring power of the contents of faith' is accounted for explicitly. The shape of the 'life structure' is referred to. The 'powerful role of the dynamic unconscious' is a distinct component (and is not subsumed under, and integrated into, the operation of 'faith'-knowing). The factor of the force-field of our lives, the economic, political, ideological, environmental, and relational influences, as well as the influence of religious communities and their symbolic representation are integrated into a component.
- 8 Cf. also Tillich's (1946; 1963) definition of magic as 'psychic participation' and his conviction that magic permeates religion, even the relation to God or the gods.
- 9 'The idea of a psychic participation of beings in each other by sympathetic contact excludes the application, not only of the notions of causality, substance, and ego in their ordinary sense, but also the category of identity.' (Tillich, 1946, p.361)
- 10 Here the lively discussion among German religious educators on the possibility and legitimacy of first naivete (Bucher, 1989; 1992; Grom, 1989; Kuld, 1990; Oser and Reich, 1990) is interesting. Bucher's (1989) 'Plädoyer für die erste Naivität' has provoked considerable reaction.

REFERENCES

- Blos, P (1974), 'The Second Individuation Process of Adolescence', *The Psychoanalytic Study of the Child*, Vol. 22, pp.162-86.
- Bucher, A (1989), "Wenn wir immer tiefer graben ... kommt vielleicht die Hölle", *Kat.Bl.*, 114, pp.654-662.
- Bucher, A (1992), *Bibelspsychologie. Psychologische Zugänge zu biblischen Texten*, Stuttgart: Kohlhammer.
- Buggle, F (1987), 'Einige generelle Aspekte und Fragen zum empirischen und theoretischen Stand der Animismus-Diskussion. Animismus: Ein wesentlich kognitives Phänomen?', in Buggle and Westermann-Duttlinger (1987), pp.22-37.
- Buggle, F, and Westermann-Duttlinger, H (1987), *Animismus als alternative Weise des Welterlebens. Theoretische Überlegungen und empirische Forschungsergebnisse*, (Forschungsberichte des Psychologischen Instituts der Albert-Ludwigs-Universität Freiburg, Nr.41) Freiburg.
- Döbert, R (1986), 'Wider die Vernachlässigung des "Inhalts" in den Moraltheorien von Kohlberg und Habermas', in Edelstein, W and Nunner-Winkler, G (eds), *Zur Bestimmung der Moral*, Frankfurt: Suhrkamp, pp.86-125.
- Döbert, R (1991), 'Oser and Gmünder's Stage 3 of Religious Development and Its Social Context: A Vicious Circle', in Fowler, Nipkow and Schweitzer (1991), pp.162-179.
- Durkheim, E (1915), *The Elementary Forms of Religious Life*, London.
- Evans-Pritchard, E E (1990), *Witchcraft, Oracles and Magic among the Azande*, Oxford: Clarendon Press.
- Fowler, J W (1981), *Stages of Faith*, San Francisco: Harper & Row.
- Fowler, J W (1982), 'Stages of Faith and Adults' Life Cycles', in Stokes, K (ed.), *Faith Development in the Adult Life Cycle*, New York: W H Sadlier, pp.178-207.
- Fowler, J W, Nipkow, K E and Schweitzer, F (eds) (1991), *Stages of Faith and Religious Development*, New York: Crossroads.
- Grom, B (1989), 'Zurück zum alten Mann mit Bart?', *Kat.Bl.*, 114, pp.790-793.
- Heimbrock, H-G (1988), 'Ritual als religionspädagogisches Problem', *Jahrb.d.Religionspäd.*, Bd.5, Neukirchen-Vluyn: Neukirchener, pp.45-81.
- Heimbrock, H-G (1990), 'Ritual and Religious Education', *British Journal of Religious Education*, 12, pp.145-150.
- Heimbrock, H-G (1991), 'Religious Development and the Ritual Dimension', in Fowler, Nipkow and Schweitzer (1991), pp.193-207.
- Helsper, W (1992), *Okkultismus - die neue Jugendreligion. Die Symbolik des Todes und des Bösen in der Jugendkultur*, Opladen: Leske+Budrich.
- Kuld, L (1990), 'Kinder denken anders. Anmerkungen zur Kontroverse um die "Erste Naivität"', *Kat.Bl.*, 115, pp.180-190.
- Loevinger, J (1982), *Ego Development: Conceptions and Theories*, San Francisco: Jossey-Bass.
- Looft, W R and Bartz, W H (1969), 'Animism revised', *Psychological Bulletin*, 71, pp.1-19.
- Malinowski, B (1954), 'Magic, Science and Religion', in *Magic, Science and Religion and Other Essays*, Garden City: Doubleday and Co., pp.17-92.
- Mischo, J (1991), *Okkultismus bei Jugendlichen. Ergebnisse einer empirischen Untersuchung*, Mainz: Matthias-Grünewald-Verlag.
- Moseley, R, Jarvis, D and Fowler, J W (1986), *Manual for Faith Development Research*, Atlanta: Center for Faith Development, Emory University.
- Müller, U (1989), *Ergebnisse einer Umfrage unter bayrischen Schülern und Schülerinnen zu Okkultismus und Spiritismus*, Regensburg: Roderer.
- Oser, F (1988), *Wieviel Religion braucht der Mensch? Erziehung und Entwicklung zur religiösen Autonomie*, Gütersloh: Güterloher Verlag.
- Oser, F and Gmünder, P (1984), *Der Mensch - Stufen seiner religiösen Entwicklung. Ein strukturalistischer Ansatz*, Zürich/Köln: Benzinger.
- Oser, F and Reich, H (1987), 'The Challenge of Competing Explanations. The Development of Thinking in Terms of Complementarity of "Theories"', *Human Development*, 30, pp.178-186.
- Oser, F and Reich, H (1990), 'Nicht zurück zum alten Mann mit Bart, sondern vorwärts zum eigenständigen Kind', *Kat.Bl.*, 115, pp.170-176.
- Piaget, J (1951), *The Child's Conception of the World*, New York: Norton.
- Piaget, J (1967), *Six Psychological Studies*, New York: Vintage.
- Sparkes, B H (1989), 'Playing with the devil: Adolescent involvement with the occult, black magic, witchcraft and the satanic to manage feelings of despair', (E.D. Dissertation, University of Massachusetts).
- Streib, H (1991), *Hermeneutics of Metaphor, Symbol and Narrative in Faith Development Theory*, Frankfurt/M: Peter Lang.
- Streib, H (1993), 'Geheimnisumwitterte magische Blüten. Jugendokkultismus im Spiegel empirischer Untersuchungen', *Ev.Erz.*, 45, pp.111-128.
- Tambiah, S J (1968), 'The Magical Power of Words', *Man - The Journal of the Royal Anthropological Institute*, 3, pp.175-208.
- Tambiah, S J (1973), 'Form and Meaning of Magical Acts: A Point of View', in Horton, R and Finnegan, R (eds), *Modes of Thought. Essays on Thinking in Western and Non-Western Societies*, London: Faber & Faber, pp.199-229.
- Tambiah, S J (1990), *Magic, science, and the scope of rationality*, Cambridge: CUP.
- Tillich, P (1946), 'The Relation of Religion and Health: Historical Considerations and Theoretical Questions', *Review of Religion*, 10, pp.348-384.
- Tillich, P (1963), *Systematic Theology, Vol.3*, Chicago: The University of Chicago Press.
- Weber, M (1958), *The Protestant ethic and the spirit of capitalism*, New York: Scribner's.
- Weber, M (1961), *General economic history*, New York: Collier.
- Zinser, H (1990), 'Okkultismus unter Berliner Schülern', *Materialdienst*, 53, pp.273-290.
- Zinser, H (1991), 'Okkulte Praktiken unter erwachsenen Schülern des zweiten Bildungswegs in Berlin (West)', *Materialdienst*, 54, pp.176-189.

This article is the revised version of a paper presented at the VIII Meeting of the International Seminar on Religious Education and Values, in Banff, Alberta, Canada, August 1992.

Dr Heinz Streib is a lecturer (Wissenschaftlicher Mitarbeiter) in Practical Theology and Religious Education at Frankfurt University (Johann Wolfgang Goethe-Universität, Fachbereich Evang. Theologie). His article, 'Autobiographical Reflection and Faith Development: Prospects for Religious Education', appeared in Vol.14 (1991) of this journal. His address is: Reutlingerstrasse 134, 70574 Stuttgart, Germany.