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Chapter 8
Autonomous Self and Inter-Processual Self: Two Ways of Explaining How People “See” and Live Relationships and the Resulting Dialogue Between Science and Faith

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Introduction

Debate on the relationship between science and religion has long flourished, as seen in two key reference books (Brooke 1991; Harrison 2010). In 1966, Ian Barbour presented a milestone for the dialogue between science and religion, postulating that both are part of the same spectrum and share subjective and objective reasons such that critical realism is needed because, in some aspects, they converge and, in other aspects, they diverge (Barbour 1966). Barbour accordingly suggested four different understandings for the relationship between science and religion, as follows: conflict, independence, dialogue and integration (Barbour 2000). This classification has been broadly accepted, although it has also been subject to modifications and alternatives; for example, John Haught proposes conflict, contrasts and convergence (Haught 2012). Stenmark, in an earlier work, suggests that several different kinds of relationships end up being of the same posture because conflict could be expressed in different ways, but, in the end, science and religion are understood as terms in opposition to one another (Stenmark 2010).

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We do not think that the conflict between science and religion is between two disciplines or indeed that it is a conflict at all because of the vast number of esteemed people with scientific and religious/theological educations that share common views on the issue. Of course, there are differing positions among people with a religious/theological education, just as there are differing positions among scientific scholars, regarding the relationship between science and religion (Stenmark 2010). This leads us to argue that the key to relate science and religion is not the degree to which they objectively have some conflict. It may be better to take a step back altogether from the assumption of science (fact-based knowledge) and religion (faith-based knowledge) as two separate domains. One may essentially ask, “What are both science and religion for; why do we need them?” One may also wonder, “Why answer the question about the relationship between science and religion?”

Thus, the more important inquiry becomes the purpose that both scientific and faith-based systems of knowledge serve. Asking this question means emphasizing first how science and faith (and all their attendant questions) may be understood and experienced by different people and, second, more or less mature and ethical ways of understanding and acting in human affairs (Akrivou and Bradbury-Huang 2011). The philosophical and psychological postures of how a person understands or experiences the science–religion relationship define how they are integrated into human action. This assumption is congruent with the fact that the foundations of science are philosophical rather than scientific (Haught 2012). For religion, philosophy is also the key instrument in theology because the faithful need to show the reason of their faith (first Letter of St Peter).

If we revisit various traditional models and how they approach the faith/religion–science problem – for example, Barbour (2000); Haught (2012) and Stenmark (2010) – they do not really appear to be as opposed in their epistemological assumptions as these authors argue, including Barbour’s divergent models/positions. This is in line with E. Dumler-Winckler (in the same volume). In fact, all the authors who have developed literature on science and religion try to advance the “project of reconciliation” between science and religion, understanding them a priori in conflict. For instance, Ian Barbour received the Templeton Prize in 1999 for Progress in Religion.

We have researched the dialogue between neuroscience and faith (Orón 2014) and different kinds and qualities of human beings, as well as the quality of our knowing and action, which all help define two contrasting paradigms of understanding and living (Akrivou and Orón 2016). Accordingly, in this chapter, we aim to show how philosophical/psychological perspectives that can be assumed by all, independent of preferences about religion and science, can explain the posture that these two paradigms take on when facing this issue. In our previous research, based on consolidating a number of theoretical perspectives across a diverse disciplinary orientation (mainly philosophy, psychology and neuroscience), we suggested that there are two contrasting paradigms for conceiving of the self and human development, namely, autonomous self (AS) and inter-processual self (IPS) (Akrivou and Orón 2016; Akrivou et al. 2018). We suggest here that, depending on which of these
two corresponding paradigms characterizes a person, how he or she "sees" and lives the relationship—dialogue between science and faith emerges as directly related.

For the AS, the subject is defined in confrontation with and opposition to any (human or other) object, understood as external and unrelated to the self. This is because AS understands the human being as an autonomous subject that strives to grow in increasing autonomy. Individualist growth in AS occurs based on the maintenance of self-control and accumulated expertise. For the other model of self and human development, namely, IPS, the human being is a person, that is, an open dynamic relationship that always maintains a distinct uniqueness and who is not exhausted in her presence as such. IPS values the personalist way whereby every human being maintains their uniqueness and internal quality of relating with another/others. In IPS, personal growth is not possible unless it happens through improving the quality of relationships between a person and other persons, as well as other beings and nature.

These two background positions, AS and IPS, can find support from proponents and opponents of both religion and science because, as noted, the emphasis is on how the relationship between the two is lived and understood. Even more importantly, we suggest that the IPS and AS mind-sets possess different understandings of the quality of dialogue itself. We therefore suggest that the quality of dialogue between science and religion differs when comparing AS and IPS.

We suggest that people who support an understanding of the human being modelled upon the AS or the IPS are more likely to understand and experience the relationship between science and faith in different qualitative ways, and we critically discuss this theoretical perspective. Human beings modelled upon the AS are more likely to understand and experience science and religion as separate "domains", and they relate to it in terms of conflict or a mental problem to be solved. Based on the AS, requiring the separation between the subject-knower (and mind) and all other objects as external, science and faith will then be understood as two independent "cognitive" object-domains that at some ideal moment or point may be integrated. The AS subject is entitled to autonomously decide which of the two to "value" more and individualistically decides how to act in the face of a perceived "conflict" separating these two domains.

Instead, people who support an understanding based upon IPS are more likely to experience and value the relationship between science and religion as an interrelated notion. Simply put, for an IPS mind-set, it is meaningless to understand this issue by separating the two constituent parts. People who live out IPS are more likely to experience and wish to grow their personal being and identity between science and religion; thus, they perceive the two in genuine integrative terms, namely, as part of an inseparable whole and a perpetual union whereby each part completes the other, while maintaining their distinctiveness. Therefore, the IPS position promotes integrated dialogue in the science–religion relationship, while the AS model understands that relationship is a conflict and is thus less likely to sustain dialogue.
Autonomous Self (AS) and Inter-Processual Self (IPS) Paradigms

As stated above, we propose two contrasting paradigms of conceiving the self and human development, which we term the autonomous self (AS) and the interprocessual self (IPS) (Akrivou et al. 2018).

Despite the fact that psychologists and philosophers have diverse models of the self, human action, human integrity and development, they all focus on human development that occurs across a number of different aspects, stages or domains. For instance, one focuses on social aspects, while another focuses on cognitive aspects. According to our research, these conceptualizations have more in common than it at first appears. Thus, depending on which of these two corresponding backgrounds characterizes the person, people will “see” and live the relationship—dialogue differently in response to other persons, things and the entire notion of human knowing and action. The AS model has its philosophical foundations in Descartes, Kant and German idealism, and its psychological foundations in Kegan, Ryan and Loevinger/Cook-Greuter.

The IPS model has its philosophical foundations in Aristotle, Leonardo Polo, Alfred Whitehead and Wang Yangming, while its psychological foundations are found in Erik Erikson, Carl Rogers and Viktor Frankl (Akrivou and Orón 2016).

The starting point of the AS model is the affirmation of a (taken for granted ontology of) division between the subject and the object as a priori distinct, while how to bring them closer together relies on the autonomous will of the subject agent. Modernism has emphasised the strength of the self as the epitome of agency (Düsing 2002). We suggest that this meaning-making quality of the AS reflects the “modern” paradigm of human beings, action and knowledge, whereby the object-world and human relationships are understood as separate and independent.

Indeed, the modernist self is the platform by which to access the world and to harness and master it by the Cartesian mind. This self loves to define substances, i.e. entities that exist by themselves; once a given substance is defined, it is possible to establish relationships or not based on the autonomous free will of each subject agent (Akrivou et al. 2018). In this case, the self grows because she rationally expands her mastery domain after domain. This process ends up being governed by the ideal of total self-determination (with the last instance of what is good or wrong being the self). In the first part of its development, the self rests more on the mastery of various social aspects or domains, but in higher states of mature growth, the self becomes increasingly autonomous and independent. The loneliness of that (AS) self is that, in the end, the self knows almost nothing about itself because it is not a person, but rather a mere logical necessity based on the fact that there must be someone to support activity (Düsing 2002 p. 12). But since the self only knows objects, the self can only know itself as an object and through objects rather than as a distinct subject.

There are some unintended educational implications of AS’s understanding of science and religion as separate domains. Attempts have been made to resolve the
problem of their relationship as a technical issue by adding separate individual pedagogical tools/interventions (Akrivou and Bradbury-Huang 2015) to help address various cognitive components included in a scientific or religious epistemology. They, however, fail to enable a long-lasting formula for human action with a focus on ethics and sustainability. Because of this, learners’ development following the “autonomous self” paradigm is limited and only succeeds in the short term.

On the other hand, the starting point of the IPS model is personalism and the affirmation of its dynamic and relational unity. For IPS, personal growth is only possible through improving the quality of relationships between a person and other persons, as well as other beings and nature. This starting point reveals a very different attitude before life itself and its different aspects because IPS has confidence in life. IPS asserts the relational unit that gives people confidence to approach the other(s) without the need to master because it is driven by the wonder of mutual learning and growing in relation to the other(s) (Akrivou et al. 2018). However, this wonder is respectful of the other’s uniqueness and allows the person to discover that individual growth is both personal as well as a sine qua non for the growth of the system. Improving the quality of our relationships is the best and only way towards overall development, which is what constitutes personal growth.

In the case of the IPS model/mind-set, personal differentiation, integration, growth and identity are different conceptualizations of the same event (as opposed to being seen as different processes). If, in AS, the self is the subject above all, in IPS, the self is a person, meaning that at the core of each human being, we find uniqueness, intimacy and individuality; this self balances the nature-subject and the personal fundamentals that shape being and acting (Akrivou and Orón 2016). So the person could be a subject, but only insofar as one is a person and maintains one’s humanity by how one acts and ethically relates within a vision of mutual growth whereby all parts in a growing relationship maintain and enhance their distinctive identity and purpose. Thus, IPS does not reject AS’s offer (individuality and the energy to create), but rather incorporates the best parts of AS. IPS does not, however, need to grow through individual mastery as AS does.

IPS also has several educational implications. Related to our topic, when we work with students at any age, we should not assume that science and religion are two different domains. The reality is one complicated domain and we ought to strive for students to understand reality both as an integrated whole and in its complexity (Akrivou 2009) rather than in a simplistic (reductionist) way. Thus, we must start by discovering the complexity of this united reality. Little by little, in the learning process, students will discover the different aspects of reality because they are in relation to one another. At the same time that they differentiate them, they integrate and identify them, increasing knowledge, including as related to the identity, differentiation and integration happening all at the same time. We find that the differences between science and religion are only a point of view that we use to contemplate reality, but, in all its complexity, there is only one reality and it is not possible to disaggregate science from faith. Science and religion offer different pathways for answering key questions about reality itself. If we want to know reality and to intervene in it in a way that enables the good, we need not just take into account science
(in all of its different disciplines, including psychology, mathematics, sociology, etc.) and religion (in all of its complexity), but also other various pathways that involve literature, history, etc.

The fact that each person holds either an AS or IPS mind-set does not mean that each governs a subjective opinion one holds about science or religion. Rather, each of these two mind-sets (AS or IPS) enables a contrasting corresponding existential, anthropological and metaphysical perspective. The corresponding existential difference is between trusting (in IPS) or searching for security (in AS). The corresponding anthropological difference is between the fact that for human beings it is possible to recognize human nature, the subject agent and personal references (in IPS), versus uniquely relying on the subject agent’s characteristics (in AS). Finally, the corresponding metaphysical differences between IPS and AS are between considering the universe as a relational and intertwined unit (in IPS) or as made up of various substances (in AS).

It is not at all the same thing to aim towards and to reach an “integral reality”, or an “ordered totality” (Altarejos and Naval 2000 p. 86). We suggest that while IPS aims to reach an “integral reality” through the growth of the relational unit(s) involved, with the AS mind-set, it is only possible to reach an “ordered totality” through a hierarchical logical sum of parts. Our way of understanding to integrate “entails a maturation in which different aspects and relationships differentiate and optimize to the same extent that they place themselves in relation to one another” (Orón 2015 p. 114).

Integration is a key word, as it helps distinguish the notion of moral maturity for IPS in opposition to AS. Integration, in IPS, happens via personal-systemic growth since the person is always understood as a unity-respecting entity. Integration in the IPS model entails a maturation that requires differentiation, but differentiation and integration are two interrelated dynamics/sides relevant to the integrity of the person (Akrivou 2009) because “integration is the dynamic that explains how growth or human maturity happens; even more, integration is the dynamic that describes the evolution and functioning of open, free systems” (Orón 2015 p. 114). However, for AS, integration is nothing more than a kind of internal coherence and something to achieve. In IPS, integration constitutes the activity of growth from the very beginning, while in AS, it is a characteristic to be reached, or not, at the end (Akrivou and Orón 2016).

Relationship Between Religion and Science in Light of AS and IPS Paradigms

As mentioned, Ian Barbour offered the first conceptualisation between science and religion, which has received a variety of interpretations. Among them, two major different approaches emerged, namely, conflict or integration. The conflict position incorporates several cognitive domain sub-divisions, such as independent fields,
submission of one field to another (religion under science or science under religion, religion A under religion B, etc.) or a more explicit confrontation. We consider that this paradigm of conflict belongs to the assumptions inherent in the AS model. In contrast, the paradigm of integration belongs to assumptions in the IPS model. For the AS model, the conflicting relationship between science and faith comes from considering them as two independent “cognitive” domains. Instead, people whose way of being/understanding is premised upon IPS are more likely to experience and value the relationship between science and religion in genuinely integrative terms.

IPS understands the science–religion relationship as part of an inseparable whole and an a priori union, whereby each part completes the other, while maintaining their distinctiveness. They have a variety of possible ways and qualities for growing this relationship further (in positive or negative terms). Therefore, a key question for IPS emerges as to whether each of these integrally related parts (in our case, science and religion) could be utilized in a higher order by mature persons who collaborate, catalysing action in service of the good (Akrivou et al. 2016, 2018). Clearly, science (scientists) that serves bad or evil ends is impermissible irrespective of one’s position on the science and religion problem. And religion (persons practicing a faith) that serves bad or evil ends is also intolerable irrespective of the position or epistemological stance that one takes on the science and religion relationship problem. This is so because the IPS paradigm undertakes action with an orientation towards a good, purposeful existence and relationships. The IPS mind-set asks how all involved parties might contribute to each other’s growth in the service of a more humane world.

It is worth recalling each model’s existential differences regarding their underlying assumptions and approaches. AS seeks security, while IPS trusts and wonder drives its approach to learn more about the world. When AS finds discrepancies between science and religion, it tends to understand and approach them with a conflict mind-set, while IPS tends to explore the tensions that make up the science–religion relationship with an approach of wonder. In the end, their corresponding approaches and difference(s) are a matter of basic trust. It is thus of interest that every human being is faced with resolving the challenge of basic trust or basic mistrust in the first 2 years of life (Erikson 1959, 1963, 1997), as opposed to dealing with it all one’s life as if it were an irresolvable personal challenge.

The conflictive mode and the integration mode share something that respectively underline AS and IPS’s approach to life, relationships and, in this case, the science–religion matter; they need to understand both deeply and in qualitative terms, and it does not matter in the end if one understands them as two alien poles or two realities that coexist on peaceful terms. The fact that some people do not take the time to think about or reflect on this issue because they have already rejected any relationship between science and religion actually demonstrates one possible understanding of the issue. Human beings cannot flee from their existential struggle and task of trying to understand a very complicated and potentially unfathomable world in all its depth. It is possible that all systems have sufficient epistemological resources for understanding the world because all systems can be understood better when one tries to understand them from within, but every system also has external
considerations. This very affirmation could be supported on a different level by mathematics, quantum physics, neuroscience, philosophy and psychology (Orón and Sánchez-Cañizares 2017). This fits very well in the issue of science–religion and their common dependence on philosophy.

When a human being wants to know, it is because he assumes that the world is not chaotic and that studying without some sort of meaning is pointless. In the debates surrounding science and religion, some have argued that people who completely reject the relationship between science and religion must then prove how it is possible that the human mind could develop two irreconcilable systems of knowing (Harrison 2010).

There is another meeting point between science and religion, namely, purpose, and it is meant to invoke the intentionality perspective rather than a teleology perspective. While the study of subjects such as math may be driven by an end of pure knowledge, it seems obvious that studying mathematics ought to also and primarily aim at developing a good or excellent tool in our quest for a better world. The telos of having a better world means allowing all who inhabit it to live together better. The same could be said regarding religion itself, its knowledge, study and experience. If religion does not serve the purpose of improving quality of life (together as a species, with other species and the planet) it is quite difficult indeed to understand it as a religion. Thus, in the end, science and religion both aim at the same end. This is another commonality in philosophical terms between the two that supports the need to acknowledge and intentionally put them in the service of a moral purpose.

Tension between science and religion does not have to be thought of in negative terms; indeed, tension can be thought of as an opportunity (Harrison 2010 p. 283). It all depends on one’s existential position. If this position refers to the desire for control and mastery, this tension is certainly a problem, but if it refers to trusting, tension awakens wonder and deepens life-enhancing possibilities.

Regarding dialogue, it is obvious that AS and IPS understand dialogue from two strikingly different perspectives. Although both use the same word dialogue, just as they understand personal integration differently, they use it in very different ways. Dialogue is defined as a conversation between two or more parts, groups, persons, etc., and it is oriented towards mutual exploration or resolution of a problem (Oxford, Dictionary of English), which relies on the shared, responsible use of reason. Yet, dialogue is meaningless, and its ends unreachable without participation; thus, the process of being in dialogue is necessary as a means for understanding something at the end of the dialogue process.

Based on this, we suggest that genuine dialogue is only possible from within the IPS mode (Akivou et al. 2016; 2018). For AS, dialogue is in fact either a transactional exchange or a political negotiation; there, it is mistakenly understood as a dialectic whereby it corresponds to the art of discussing the truth of two or more opinions with the aim that one should prevail since each side is understood as dichotomous and potentially irreconcilable. In the same way, the goals of commercial
companies or political parties are defined previous to the dialoguing process and are external to it, while each autonomous party defines their interests perfectly, a priori and independently. Dialogue is then something that has to be endured in order to promote one’s agenda, points and interests above those of others. If the dialogue process requires one party to give up something at some point for consensus, it is seen as a sacrifice in order to secure something more important.

By contrast, and taking into account that “the idea of person expresses in its origin the idea of dialogue” (Ratzinger 1990 p. 443), for IPS, there is a real readiness and a humanistic, benevolent willingness to hear the other and partake in dialogue (Akrivou et al. 2016) because the I-person assumes that the other-person has the same willingness to take part and mutually participate in discovering a way of resolving a challenge that satisfies the common good and each party’s good beyond what could be individually imagined. Since “there is neither the pure ‘I,’ nor the pure ‘you,’ but on both sides the ‘I’ is integrated into the greater ‘we’” (Ratzinger 1990 p. 453), the goal is not therefore individual, but rather is shared and oriented towards a higher purpose that increases the good of all involved. These perspectives thus present the experience and process of dialogue, as well as its progress and potential outcomes, as fundamentally different.

Conclusion

This chapter discusses that the relationship between science and faith is not a given or objectively defined one but rather depends on personal ways of understanding/seeing and living this relationship. In order to show this, and drawing from our previous research, we approached the matter from two contrasting paradigms of conceiving the self and human development, namely, the “autonomous self” (AS) and the “inter-processual self” (IPS) to conclude that, depending on the corresponding background that characterizes the human being, people “see” and live the relationship—dialogue between science and faith differently.

As shown above, an understanding of the human being and action in the AS mode makes persons more likely to experience this relationship between science and faith in terms of conflict or a mentally unresolvable dialectic where science or religion have to win out over the other and dominate the person’s overall worldview. Instead, people who display an understanding based upon the IPS paradigm are more likely to experience and value the relationship between science and religion as an interrelated notion and an inseparable union across different ways of understanding. IPS does not try to understand these constituent parts in terms of dichotomy and duality, as two separate domains, but rather perceives the two in genuine integrative terms and always in relationship, while the AS mode centres on which one is true and which one has a fallacious understanding of reality.
Simply put, this means that AS ultimately falls short of the task of promoting genuine dialogue between the two, whereas IPS has the capacity to promote a genuine dialogue between science and religion premised upon its understanding of the self, human beings, action and understanding of the dialogue itself.

Bibliography


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