

**Self-Control within a Muslim Ideological Surround: Empirical Translation Schemes  
and the Adjustment of Muslim Seminarians in Iran**

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### **Abstract**

Associated with the Ideological Surround Model of the relationship between religion and the social sciences, empirical translation schemes are a procedure for converting psychological measures into functionally equivalent religious constructs. In a sample of Muslim seminarians in Iran, this procedure transformed the Brief Self-Control Scale as a measure relevant to a non-religious Darwinian perspective into a language more reflective of a Muslim ideological surround. Brief and Muslim Self-Control scales correlated positively. Each also predicted the religious adjustment of a stronger Intrinsic and Extrinsic Personal Religious Orientation and the psychological adjustment of greater Self-Esteem and Satisfaction with Life and of lower Perceived Stress, Depression, and Anxiety. Correlation, multiple regression, and mediation analyses identified Darwinian and Muslim perspectives on self-control as largely compatible. This investigation most broadly illustrated the need for a post-postmodern sensitivity to immanent social scientific, transcendent religious, and dialogical ideological surrounds.

*Keywords:* Self-Control, Evolutionary Psychology, Islam, Dialogue, Ideological Surround

Model

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Postmodernism presents challenges that may be especially acute within the psychology of religion. This is a central assumption of the Ideological Surround Model (ISM) of the relationship between religion and the social sciences (e.g., Watson, 1993, 2011, 2014; Ghorbani, Watson, Saeedi, Chen, & Silver, 2012). Modernism originated in a Cartesian confidence in the ability of natural reason to supply an indisputable objectivity that would overcome the irrationality of religious violence during the Reformation (Stout, 1988; Toulmin, 1990). Postmodernism is literally that which came “after modernism” and rests upon a skepticism about the ability of modernist or any “rationality” to narrate social life with an indisputable objectivity (Lyotard, 1984). Social science, for instance, can tell no universally compelling “story” about religion, or vice versa.

At least two developments led to this postmodern skepticism. First, at a historical level, modernism simply failed to deliver on its promise to replace irrational religious violence with rational modernist peace. This problem became unavoidably obvious in warfare of the 20<sup>th</sup> Century. Rather than eliminate bloodshed, modernist applied rationality made the killing more technologically efficient (Appleyard, 1992; Hart, 2014) with a potential plausibly described as apocalyptic (Girard, 2009).

Second, at the philosophical level, reason eventually made it clear that reason could never be fully objective. Modernist or any other system of thought must invariably begin at some particular point of intellectual departure that will leave behind unexamined presuppositions. The “objectivity” of the system can then be challenged by arguing against the rationality of those presuppositions. Attempts to defend a system will then require further justifications, but those justifications will in turn rest upon additional presuppositions that can

also be challenged. Full objectivity, therefore, requires an infinite regress of justifications that human thought cannot supply (Kaufmann, 1974).

Superimposed upon the infinite regress problem is the further difficulty that the diverse rationalities of human social life are calibrated to different ultimate standards. What is rational within theistic religious thought and practice will conform to some vision of God who stands above or is transcendent to the causal processes of the universe. Dominant social scientific and other modernist cultural rationalities will be compatible with some reading of Nature that will emphasize the existence of only this-worldly or immanent causal dynamics. Overarching these rationalities will be no “higher” standard for judging the standards themselves, and thus for resolving their disagreements. In other words, social rationalities will lack a common metric of evaluation, and this will make them “incommensurable” by definition (MacIntyre, 1988). In times of discord, incommensurability then makes “power” the default “standard” for “resolving” differences, by which social life can under certain conditions return to the violence that modernism sought to eliminate. In short, the rationalities of religion and social science (and of modernity more generally) operate within the surround of ideological commitments to different ultimate standards.

### **ISM and “Future Objectivity”**

Infinite regress and incommensurability threaten a relativism that could interfere with the progressive unfolding of any social rationality. A solution to this problem was in fact suggested by a philosopher at the origins of postmodernism, Friedrich Nietzsche. Expressing his skepticism about Cartesian modernist rationality, Nietzsche (1967/1887) warned against “the dangerous conceptual fiction that posited a ‘pure, will-less, painless, timeless knowing subject’;... these always demand that we should think of an eye that is completely unthinkable, an eye turned in no particular direction, in which the active and interpreting forces, through which alone seeing becomes seeing *something*, are supposed to be lacking.”

The actual situation is, “There is *only* a perspective seeing, *only* a perspective ‘knowing’; and the *more* affects we allow to speak about one thing, the *more* eyes, different eyes, we can use to observe one thing, the more complete will be our ‘concept’ of this thing, our ‘objectivity,’ be” (p. 119). Rejection of modernist epistemology, therefore, does not dictate relativist subjectivity, but rather what Nietzsche called “future ‘objectivity’” defined “as the ability to control one’s Pro and Con and to dispose of them, so that one knows how to employ a *variety* of perspectives and affective interpretations in the service of knowledge” (p. 119). The unspoken further implication is that development of more complete “concepts” will require integration of this variety of perspectives at the level of some higher meta-perspective.

Future objectivity, therefore, points beyond postmodernism. Most basically, the ISM argues that a psychology of religion sensitive to the challenges of infinite regress and incommensurability will need to practice a post-postmodern “future objectivity.” Such an approach will *not* eliminate the need for “past objectivities.” With a past objectivity, a perspectival community of understanding will develop its thought and practice relative to only one standard of rationality. Such rationalities will *not* be “past” in the sense of being “over.” Instead, they will be “past” only relative to Nietzsche’s “future” objectivity. Figure 1 depicts the basic structure of any “past objectivity.” A perspectival community will develop methods that can explain the object of study in terms compatible with its ultimate standard. Perspectival communities relevant to the psychology of religion could develop with a standard that is either immanent Nature or transcendent God. For both of these immanent and transcendent perspectives, the object of study would be the psychology of religion, but methods, standards, and perspective-dependent concepts would differ.

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Insert Figure 1 about here  
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All elements within a past objectivity can operate bi-directionally. Standards, for example, will influence a perspective, but a perspective can also use the findings of its methods to deepen appreciations of its own standard. Past objectivities, therefore, have a progressive potential as all elements of the rationality combine to expand its explanatory net. This progressivity can work against, but never fully eliminate the infinite regress problem. Presuppositions underlying methods, for example, will likely rest upon a “leap of faith” that can supply no indisputable, final justification.

Past objectivities make invaluable contributions, but they cannot address the problem of incommensurability. A psychology of religion sensitive to this challenge would need something like the “future objectivity” depicted in Figure 2. A meta-perspectival community working under a shared commitment to a specific standard would suspend Nietzsche’s “Pro and Con” and try to “see” from the perspectives of both immanent and transcendent communities of understanding. Given the incommensurability of these perspectives, a dialogical perspective would also be necessary for evaluating the meaning of “concepts” across communities and thus for clarifying the dynamics of their communication. At least three dynamics might be evident. Ideological *compatibility* would appear when appropriate methods uncovered areas of agreement. Ideological *contextuality* would follow from demonstrations that the concepts of a perspective worked exclusively or relatively better within their home ideological surround. Ideological *assimilation* would occur when an outside perspective proved to be more effective in describing religious and psychological functioning than the home ideological surround. A meta-perspective would then integrate immanent, transcendent, and dialogical perspectives into a future objectivity that was faithful to its standard, but sensitive to the problems of incommensurability.

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Insert Figure 2 about here

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In Figure 2, immanent and transcendent perspectives would operate relative to the standard of a past rationality. An immanent standard would be some reading of Nature as with evolutionary psychology, to cite only one possibility. A transcendent standard would be some vision of God as with, for example, Islam. A dialogical perspective would also operate relative to a single standard, but this standard would reflect some plausible trans-perspectival value that would be necessary for adequate communication. “Communicative competence,” for instance, might usefully define the dialogical perspectival standard. The meta-perspective will also develop in conformity with a single standard. An immanent meta-perspective would again have Nature as its standard, and a transcendent meta-perspective would again have God. In contrast to understandings at the perspectival level, the catch of understandings at the meta-perspectival level would reflect the casting out of an intellectually broader explanatory net. A dialogical meta-perspective could also have the same standard as the dialogical perspective, but it might instead maintain commitments to some more ambitious and cross-culturally important inter-traditional standard like Peace (see e.g., Watson, 2006; Wani, Abdullah, & Chang, 2015).

### **Empirical Translation Schemes and Self-Control**

Among other things, the ISM seeks to develop methods that expand dialogical perspectives within the social sciences. The empirical translation scheme is one such method and typically presupposes substantive compatibilities between perspectives on some particular issue. With this procedure, research participants respond to items from a psychological scale and then to a number of additional statements that attempt to express the same basic ideas, but in religious language. The attempt is not always to offer a literal religious translation of the nonreligious statement. In some cases, it might be possible to identify what would be close to a “literal” translation with only minor changes in a word or

two. At other times, however, a translation might attempt to express the same basic idea at a less literal level by making reference to a more specific religious belief or practice that would exemplify what the original statement attempted to express.

Positive correlations between original and religious expressions of a statement identify a functionally valid translation. Translations that display the strongest linkage with each original statement can be combined into an explicitly religious articulation of the very same construct. Relationships of these two ideologically parallel measures with other variables can then clarify the communicative dynamics that exist between perspectives on the issue examined. In short, empirical translation schemes bring immanent psychological and transcendent religious perspectives into a methodologically formal type of dialogue.

Thus far, empirical translation schemes have been used only with Christians (Watson 2008a,b). These studies demonstrate that compatibilities between social scientific and Christian languages can make the process of translation fairly straightforward (Watson, Milliron, Morris, & Hood, 1995; Watson et al., 2003), but unexpected complexities can also occur (Watson & Morris, 2006). In the present project, one important goal was to expand use of empirical translation schemes to non-Christians by analyzing social scientific and religious perspectives on self-control in a sample of Muslims in Iran.

Operating within an immanent ideological surround, McCullough and Carter (2013) developed an evolutionary perspective on the relationship of religion and self-control. They argue, “Human capacities for the control of appetites, impulses, and desires were ... put in place by natural selection acting on neural tissue over many generations” (p. 126). Cultural evolution then became a more critical factor when humanity moved from hunter-gatherer to sedentary and agrarian forms of life. Such communities required “waiting, tolerating, and cooperating” (p. 126), and “the modern features of the world’s religions have evolved as they have to prop up humans’ abilities to exert control over their appetites, emotions, and desires”



(p. 124). In other words, religions to some important degree operate as carriers for a self-control that became culturally adaptive when social life became more sedentary.

Muslim perspectives would also identify self-control as a centrally important psychological process, but would, of course, reject Nature as the standard sufficient for explaining its development. In translation, the Arabic word “*islam*” literally means “submission” (Küng, 2007, p. 78). Submission obviously requires self-control. One of the Five Pillars of Islam (i.e., the *arkan*) and thus of this submission is the *shahada*, which is the belief that there is no god but Allah and that Mohammad is His messenger. This pillar defines the standard of Muslim social rationality. The other four pillars point, either directly or indirectly, toward “waiting, tolerating, and cooperating.” *Ramadan* is an annual month-long fast that clearly demands “waiting.” *Salat* unites Muslims in daily prayers of prescribed actions and words. *Hajj* is the call for Muslims to make a pilgrimage to Mecca at least once in their life if they are able to do so. *Zakat* obliges Muslim to support charity in the giving of alms (Küng, 2000). Each of these pillars, in its own way, encourages “tolerating” and “cooperating” alone or in combination. In addition to these pillars, numerous Qur’anic verses encourage Muslims to develop the self-control that would be necessary, for example, to resist Satan, to avoid sin, and to ensure social solidarity.

As developed by psychologists working within at least implicitly immanent normative assumptions, the Brief Self-Control Scale is a 13-item measure that expresses self-control in a language that is not explicitly religious (Tangney, Baumeister, & Boone, 2004). The present project sought to translate this measure into Muslim language. Use of this procedure occurred with a sample of Muslim seminarians in Iran, who presumably would be especially relevant exemplars for identifying functionally valid Muslim translations of this construct. Again, empirical translation schemes typically presume the existence of compatibilities between perspectives. The expectation, therefore, was that valid translations would be identified for all

13 Self-Control items and that a final Muslim Self-Control Scale would correlate positively with the original measure.

### **Further Clarifying the Two Self-Controls**

Procedures also explored the implications of these two expressions of self-control by examining their relationships with religious and psychological adjustment. Gorsuch and McPherson (1989) Intrinsic and Extrinsic Personal Religious Orientation Scales assessed religious adjustment. The Intrinsic Orientation records a commitment to make religion the ultimate motivation in life. The Extrinsic Personal Orientation involves a use of religion to promote a sense of well-being. Previous research has established that these two motivations predict more adaptive religious and psychological functioning in Iranian Muslims (Ghorbani, Watson, & Khan, 2007). With regard to psychological functioning, Self-Esteem (Rosenberg, 1965) and Satisfaction with Life (Diener, Emmons, Larsen, & Griffin, 1985) scales recorded adjustment, while evidence of maladjustment appeared in the assessment of Perceived Stress (Cohen, Kamarack, & Mermelstein, 1983) and Depression and Anxiety (Costello & Comrey, 1967).

Based upon the hypothesis of ideological compatibility, Brief Self-Control and Muslim Self-Control scales should correlate positively with the Intrinsic and Extrinsic Personal Religious Orientations, Self-Esteem, and Satisfaction with Life and negatively with Perceived Stress, Depression, and Anxiety. In addition, these Brief and Muslim Self-Control correlations should *not* differ statistically, because nonsignificant contrasts would suggest roughly equivalent meanings across ideological surrounds. Finally, in multiple regression procedures in which both self-control scales served as simultaneous predictors, each should make at least some contribution to explaining variance in religious and psychological functioning. Outcomes in which only one of the two scales served as a significant predictor would point toward ideological assimilation or contextuality effects.

A final assessment of ideological implications involved an examination of Self-Control and Muslim Self-Control as simultaneous mediators in two sets of mediation models. First, McCullough and Carter (2013) argue that self-control is a central element in explaining the association of religious measures with adjustment. Self-Control and Muslim Self-Control, therefore, should mediate linkages of the Intrinsic Orientation as the independent variable of a mediation model with all the other measures serving as the dependent variables.

Second, McCullough and Carter (2013) point toward self-control as process that is relevant to self-regulation. Research in Iran has identified self-control as one element in self-regulation by documenting its ability to mediate relationships of Perceived Stress with at least some indices of psychological adjustment (Ghorbani, Watson, Farhadi, & Chen, 2014). The broad implication of these data was that self-control might help ameliorate stress-related disturbances in self-functioning. This study, therefore, examined the Brief Self-Control and Muslim Self-Control scales as simultaneous mediators of Perceived Stress relationships with other measures.

Centrally important in these mediation analyses was their ability to further clarify the ideological dynamics of the two forms of self-control. Procedures essentially made it possible to explore a 2 X 2 matrix of relationships between independent and dependent variables. The two independent variables were religious (i.e., the Intrinsic Orientation) and nonreligious (i.e., Perceived Stress), as were the two broad categories of dependent variables. Strongest evidence of ideological compatibility would appear if Self-Control and Muslim Self-Control both served as reliable mediators regardless of the ideological perspectives underlying the independent and dependent variables. Numerous other possibilities, nevertheless, exist. Ideological assimilation would be obvious, for example, if the Brief Self-Control Scale served as the only significant mediator in all models. On the other hand, ideological contextuality would be evident if only Muslim Self-Control mediated the connection of the

Intrinsic with the Extrinsic Personal Orientation and if only Perceived Stress mediated the associations of Perceived Stress with the various psychological dependent variables. Other, perhaps more complex ideological patterns might become obvious as well.

### **Hypotheses**

In summary, this project represented a first attempt to use empirical translation schemes with a non-Christian sample. Muslim seminarians in Iran served as the research participants, and procedures rested upon the basic assumption that self-control is a construct that is compatible across immanent psychological and Muslim transcendent ideological surrounds. Tests of that assumption involved the examination of five broad sets of hypotheses.

First, procedures will demonstrate that all 13 Brief Self Control Scale items can be functionally translated into a more explicitly Muslim language and that the original Brief Self-Control and the translated Muslim Self-Control scales will correlate positively.

Second, Brief Self-Control and Muslim Self-Control scales will correlate positively with Intrinsic and Extrinsic Personal Religious Orientations, Self-Esteem, and Satisfaction with Life and negatively with Perceived Stress, Depression, and Anxiety.

Third, Self-Control and Muslim Self-Control correlations with other variables will not differ significantly.

Fourth, as simultaneous predictors in multiple regression procedures, both Brief Self-Control and Muslim Self-Control will make significant contributions to the prediction of all other measures.

Fifth and finally, Brief Self-Control and Muslim Self-Control will serve as simultaneous mediators of Intrinsic Orientation and Perceived Stress relationships with other measures.

### **Method**

## Participants

Research participants included 104 men and 101 women enrolled in Muslim seminaries in Tehran. Their average age was 26.2 ( $SD = 8.0$ ).

## Measures

All psychological scales appeared in a single questionnaire booklet. Translation of each instrument from English into Persian occurred in preparations for previous projects, and numerous investigations have confirmed the validity of each translation for use within the Iranian cultural context (e.g., Ghorbani et al., 2014; Ghorbani, Watson, Rezazadeh, & Cunningham, 2011; Ghorbani, Watson, & Weathington, 2009). Except for the Perceived Stress Scale, participants reacted to each instrument using 1-to-5 Likert response options. Statistical procedures scored each construct in terms of the average response per item. Placement of scales within the booklet occurred in the order of their descriptions below.

*Self-Control.* The Brief Self-Control Scale (Tangney et al., 2004) includes 13 statements ( $\alpha = 0.75$ ,  $M = 3.46$ ,  $SD = 1.45$ ). A representative expression of Self-Control says, “I am good at resisting temptation.”

*Anxiety and Depression.* Costello and Comrey (1967) measures assess dispositional Depression (14 items,  $\alpha = 0.86$ ,  $M = 2.12$ ,  $SD = 1.4$ ) and Anxiety (9 items,  $\alpha = 0.75$ ,  $M = 2.69$ ,  $SD = 1.63$ ), Depression appears, for example, in the self-report, “I feel sad and depressed.” Illustrating Anxiety is the assertion, “I’m a restless and tense person.”

*Self-esteem.* The widely used Rosenberg (1965) Self-Esteem Scale includes 10 statements ( $\alpha = 0.81$ ,  $M = 3.6$ ,  $SD = 1.5$ ). An example item says, “I feel that I have a number of good qualities.”

*Satisfaction with Life.* Five statements make up the Diener et al. (1985) Satisfaction with Life Scale ( $\alpha = 0.83$ ,  $M = 3.26$ ,  $SD = 1.46$ ). An illustrative item says, “So far I have gotten the important things I want in life.”

*Perceived Stress.* As in previous Iranian studies, removal of one item displaying a negative item-to-total correlation improved the internal reliability of the Perceived Stress Scale (Cohen et al., 1983). This instrument presented a series of 13 questions about stressors during the past month ( $\alpha = .80$ ,  $M = 2.60$ ,  $SD = 0.59$ ). One question asked, for instance, “In the last month, how often have you felt that you were unable to control the important things in your life?” Responses ranged from 0 (“never”) to 4 (“almost always”).

*Religious Orientation.* Gorsuch and McPherson (1989) scales assessed Intrinsic (8 items,  $\alpha = 0.74$ ,  $M = 4.24$ ,  $SD = 1.03$ ) and Extrinsic Personal (3 items,  $\alpha = 0.67$ ,  $M = 4.03$ ,  $SD = 1.34$ ) Religious Orientations. Indicative of the Intrinsic Orientation is the statement, “My whole approach to life is based on my religion.” Exemplifying the Extrinsic Personal Orientation is the self-report, “What religion offers me most is comfort in times of trouble and sorrow.” This Religious Orientation Scale also includes a 3-item Extrinsic Social Orientation measure in which religion is used for social gain. Previous studies have revealed this religious motivation to be relatively weak and ambiguous in Muslim samples (Ghorbani et al., 2007). In this study, for example, the Extrinsic Social Orientation displayed no significant connection with either Brief Self-Control ( $-.09$ ) or Muslim Self-Control ( $-.10$ ,  $p$ 's  $> .20$ ). Extrinsic Social data, therefore, were not included in order to present a more concise and focused presentation of this project.

*Muslim Self-Control Translations.* A final section of the questionnaire booklet presented at least three potential Muslim translations for each of the 13 statements from the Brief Self-Control Scale. The main resource for creating these 46 possible translations was an analysis of verses related to self-control from the Holy Qur'an. Those verses guided efforts to develop functionally equivalent expressions of Brief Self-Control items in the language of Muslim religious commitments.

## **Procedure**

Procedures complied with institutional regulations governing the ethics of research. All participants volunteered for the project, and their responding remained completely anonymous. Administration of the questionnaire booklet to individuals and to groups of varying sizes occurred in a classroom setting.

Preliminary analyses assessed whether gender should be controlled in subsequent statistical procedures. Creation of a Muslim Self-Control Scale then began with an examination of relationships of each potential translation with its corresponding expression in the Brief Self-Control Scale. Again, a positive linkage between these two items identified a successful translation. A final Muslim Self-Control Scale combined each translation that exhibited the strongest positive correlation with the 13 original Brief Self-Control items.

Data analyses next centered on three issues. Most basic was an examination of relationships among variables that spotlighted findings for the Brief and Muslim Self-Control scales. Second, multiple regression procedures used these two self-control measures as simultaneous predictors of all other constructs. Third, the analytical procedures of Hayes (2012) evaluated the Brief Self-Control and Muslim Self-Control scales as simultaneous mediators of associations displayed by the Intrinsic Orientation and then by Perceived Stress.

## **Results**

### **Preliminary Analyses**

In preliminary analyses, women scored higher than men on the Intrinsic ( $r = -.18$ ) and Extrinsic Personal Religious Orientations ( $-.25$ ), Self-Control ( $-.29$ ), Self-Esteem ( $-.19$ ), and Satisfaction with life ( $-.17$ ,  $ps < .05$ ). All subsequent analyses, therefore, controlled for gender.

Partial correlations among all but the self-control constructs appear in Table 1. The Intrinsic and Extrinsic Personal Religious Orientations correlated positively with each other, Self-Esteem, and Satisfaction with Life and negatively with Perceived Stress and Depression.

The Intrinsic Orientation also exhibited an inverse connection with Anxiety. All other relationships conformed to expectations based upon mental health implications. In other words, the adjustment of Self-Esteem and Satisfaction with Life correlated positively with each other and negatively with the maladjustment of Perceived Stress, Depression, and Anxiety. These latter measures, in turn, correlated positively.

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Insert Table 1 about here  
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Among the 46 possible Muslim translations of self-control, 35 correlated positively with their parallel expression in the Brief Self-Control Scale. At least two statements met this criterion for each original item. Again, the final Muslim Self-Control Scale combined the 13 translations that displayed the strongest positive linkage with the corresponding expression in the Brief Self-Control measure ( $\alpha = .80$ ). The 13 original items and their best translations appear in Table 2 along with the partial correlations that appeared between each pair of items. The partial correlation of the final 13-item instrument with all 35 successful translations combined together ( $\alpha = 0.92$ ,  $M = 3.51$ ,  $SD = 0.61$ ) was  $.94$ ,  $p < .001$ . The 13- and 35-item measures displayed no substantive differences in their relationships with any other variable, and this finding was important in confirming that no noteworthy information was lost by focusing on the shorter 13-item measure.

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Insert Table 2 about here  
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### **Comparing Self-Control and Muslim Self-Control**

The partial correlation of the Muslim Self-Control with the Brief Self-Control Scale was  $.64$  ( $p < .001$ ). Average responding on Muslim Self-Control ( $M \pm SEM. = 3.40 \pm .04$ ) was



not significantly different from that on Brief Self-Control ( $3.47 \pm .04$ ), Greenhouse-Geisser  $F(1, 203) = 3.19, p > .05$ .

Linkages of the Brief and Muslim Self-Control measures with other constructs appear in Table 3. As predicted, partial correlations for both were positive with the Intrinsic and Extrinsic Personal Orientations, Self-Esteem, and Satisfaction with Life and negative with Perceived Stress, Depression, and Anxiety. The more robust connection of Brief Self-Control with Self-Esteem was the lone significant difference between the relationships observed for these two measures.

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Insert Table 3 about here  
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Multiple regression results in which the two Self-Control measures served as simultaneous predictors of the other variables also appear in Table 3. Both instruments made significant contributions to the prediction of Perceived Stress, Satisfaction with Life, and Depression. The Brief but not the Muslim Self-Control Scale explained variance in Extrinsic Personal, Self-Esteem, and Anxiety scores. Only Muslim Self-Control displayed a significant association with the Intrinsic Orientation.

### **Simultaneous Mediation Analyses**

Again, examination of mediation effects involved the analysis of two sets of models. In one set, the Intrinsic Religious Orientation served as the religious independent variable, whereas Perceived Stress was a psychological independent variable in the second set. Tests of mediation required that each independent variable display significant associations with the Brief Self-Control and Muslim Self-Control mediators and that each independent variable was a reliable predictor of the proposed dependent variables (Baron & Kenny, 1986). The

preceding analyses made it clear that all these conditions had been met for the variables included in this project

As Table 4 makes clear, both self-control measures significantly mediated Intrinsic Orientation relationships with Perceived Stress and Satisfaction with Life. In addition, however, the Brief Self-Control Scale was the lone significant mediator in explaining variance in the other dependent variables. In these procedures, significant associations prior to the analysis of the mediators became nonsignificant after mediation with Self-Esteem, Satisfaction with Life, and Anxiety. Full mediation, therefore, occurred with these dependent variables. Evidence of partial mediation appeared in direct effects that remained significant after examining mediation effects for the Extrinsic Personal Orientation and Depression.

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Insert Table 4 about here  
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Table 5 reveals that in no analysis did both self-control scales significantly mediate Perceived Stress relationships with a dependent variable. An overall mediation effect appeared for the Extrinsic Personal Orientation, but neither individual mediator displayed a significant influence. In other significant outcomes, only Muslim Self-Control mediated the Perceived Stress relationship with the Intrinsic Orientation and only the Brief Self-Control Scale partially mediated associations of Perceived Stress with Self-Esteem and Anxiety.

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Insert Table 5 about here  
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## **Discussion**

Within a Darwinian ideological surround, religion essentially serves as a carrier for the self-control that became especially adaptive in processes of cultural evolution after

humanity transitioned from hunter-gatherer to agrarian forms of social life (McCullough & Carter, 2013). Islam literally refers to a “submission” that requires self-control in the thought and practice of Muslim social rationality. Parallels positive evaluations of this psychosocial process suggest that incommensurable Darwinian and Muslim rationalities will express self-control in ideologically compatible terms. This study used empirical translation schemes with a sample of Iranian Muslim seminarians to confirm that expectation.

Evidence of ideological compatibility seemed clear in most results. Functional Muslim translations appeared for all 13 Brief Self-Control items. Brief and Muslim Self-Control Scales displayed a robust positive correlation, and both measures predicted religious adjustment, as measured by the Intrinsic and Extrinsic Personal Religious Orientations, and psychological adjustment, as made evident in higher Self-Esteem and Satisfaction with Life and in lower Perceived Stress, Depression, and Anxiety. With only one exception, the magnitude of these relationships did not differ across the two self-control measures. In multiple regression procedures, both scales also contributed to the prediction of Perceived Stress, Satisfaction with Life, and Depression. The same direction of these effects confirmed their compatibility, but the finding that both served as significant predictors also suggested that each supplied an at least somewhat independent perspective on adjustment.

Compatibility and independence also appeared in mediation results in which both self-control measures mediated relationships of the Intrinsic Religious Orientation with Perceived Stress and Satisfaction with Life.

While most findings uncovered compatibility effects, a few also suggested ideological contextuality. Brief Self-Control correlated more strongly than Muslim Self-Control with Self-Esteem. Brief Self-Control and Self-Esteem, unlike Muslim Self-Control, do not include religious language and shared an ideological home in the perspectives of contemporary psychology. A relative contextuality effect, therefore, seemed obvious. Other evidence of

contextuality appeared when multiple regressions revealed that only Muslim Self-Control predicted the Intrinsic Religious Orientation and that only Brief Self-Control displayed associations with Self-Esteem and Anxiety. In addition, only Brief-Self Control mediated Perceived Stress relationships with Self-Esteem and Anxiety. In these mediation results, only a psychological and not a Muslim expression of self-control mediated relationships between independent and dependent variables developed within the ideological surrounds of contemporary psychology.

Several mediation results suggested hybrid ideological effects. Only Brief Self-Control mediated relationships of the Intrinsic Religious Orientation with Self-Esteem, Depression, and Anxiety. Relative to the three dependent variables, these results identified ideological contextuality effects. Relative to the Intrinsic Religious Orientation independent variable, however, these outcomes pointed toward ideological assimilation. Hence, these were hybrid effects because they uncovered the combination of both contextuality and assimilation effects.

Mediation results for the Extrinsic Personal Orientation were especially noteworthy. Evidence of a pure ideological assimilation effect appeared when only the Brief Self-Control Scale mediated the association of the Intrinsic with the Extrinsic Personal Orientation. A construct without religious language, therefore, was superior to the religious language of the Muslim Self-Control Scale in defining the connection of a religious independent variable with a religious dependent variable. Research has clearly established the Extrinsic Personal Orientation as a strong and generally consistent predictor of Muslim religious and psychological adjustment (Ghorbani et al., 2007). At the same time, however, Muslim theological considerations suggest that extrinsic religious motivations may not always reflect the very highest Muslim ideals (Ghorbani, Watson, Ghramaleki, Morris, & Hood, 2002). The demonstration that only the Brief Self-Control Scale mediated this relationship perhaps

supplied a subtle conformation of this more equivocal Muslim evaluation of extrinsic religious motivations.

Extrinsic Personal data were also interesting for another reason. Based on studies using measures derived in one way or another from the original Allport and Ross (1967) Religious Orientation Scales, McCullough and Carter (2013) conclude that the “extrinsic religious motivation is associated with less self-control” (p. 127). In this project, however, the Extrinsic Personal Orientation displayed direct rather than inverse linkages with both Brief and Muslim Self-Control Scales. As also noted briefly in the measures section of this paper, the ambiguous Extrinsic Social Orientation failed to correlate with either index of self-control. Identification of Extrinsic Personal and Social factors first occurred in a factor analysis that also identified residual Extrinsic Orientation items that seemed best described as reverse scored expressions of the Intrinsic Orientation (Kirkpatrick, 1989). The present data suggest that previous connections with lower self-control did not identify the influence of any extrinsic religious motivation, but rather reflected a mirror image of the Intrinsic Religious Orientation supplied by the residual items.

### **Three Meta-Perspectives of Interpretation**

Future objectivity suggests the necessity of interpreting research in the psychology of religion at immanent, transcendent, and dialogical meta-perspectival levels. This need in no way represents a capitulation to postmodern relativism, but rather would reflect a post-postmodern acknowledgement of the empirical reality of social rationalities as incommensurable. Each meta-perspectival community of understanding can and presumably should pursue the methodical unfolding of its own rationality while remaining firmly committed to its own standard. This unfolding at a meta-perspectival rather than at a perspectival level should produce observations based on a “higher” vision that makes it possible for all ideological surrounds to cast a wider explanatory net.

Relative to the immanent meta-perspective of evolutionary psychology, these data clearly supported the claim that religions may often predict adjustment because they serve as carriers for a culturally adaptive self-control. This support did not rest upon a simple perspectival demonstration that the Brief Self-Control Scale correlated as predicted with well-established measures of religious adjustment. Rather, the casting of a wider meta-perspectival net made it possible to obtain a richer catch of findings in support for the hypothesis. All Brief Self-Control items could be functionally translated into Muslim language. Especially noteworthy was the further demonstration that a psychological scale without religious language was consistently comparable to a Muslim Self-Control Scale in predicting the adjustment of Muslim seminarians. Indeed, at least some correlation, multiple regression, and mediation evidence identified the more religiously neutral Brief Self-Control Scale as superior to the explicitly religious Muslim Self-Control Scale in explaining religious and psychological functioning. One implication, therefore, was that self-control may find foundations in nature that religions then elaborate, but do not definitively express. In line with a Darwinian ideological surround, religious self-control might consequently be interpreted as the derivative of a potential built by evolution into nature.

Relative to the transcendent meta-perspective of Islam, these data confirm the important role of self-control in the “submission” that defines Islam. Self-control expressed in Muslim language and even in language without explicit references to religion predicted religious and psychological adjustment in Muslim seminarians. Any findings that the non-religious Brief Self-Control Scale was equivalent and sometimes superior to the Muslim Self-Control Scale in no way challenges a Muslim ideological surround. At least some Muslim scholars have emphasized how Islam must embrace the findings of science and look for the guidance that God makes available in nature (see e.g., Kaltner, 2011, pp. 24-25). The Muslim presumption would also be that God created nature in contrast to the Darwinian presumption

that belief in “God” represents instead a natural adaptation. Notions that God created nature or that nature created “God” are not falsifiable and will be built into the standards that guide the unfolding of these two incommensurable rationalities. Any empirical superiority of the Brief over the Muslim Self-Control Scale, therefore, might merely mean that Muslim expressions of this psychological process require further development or that this study failed to sample an already available and more adequate expression of Muslim self-control.

The Darwinian claim that self-control in nature preceded self-control in religion also represents no existential threat to Muslim faith. God presumably would not ask humanity to develop potentials that are impossibly “unnatural,” but would instead ensure the availability of those potentials within human nature. Implied in this type of argument is the further suggestion that Muslim and other religious social sciences can perhaps be more forthright than Darwinian perspectives in not only developing a social science of humanity-as-it-is, but also a social science of humanity-as-it-should-be. Darwinian social scientists will likely want to and presumably should use their perspective to say something about humanity-as-it-should-be. At least some religious commentators, however, will be skeptical that any such effort can have pure foundations in nature, but will instead import upon some outside system of principles for determining what should and what should not be selected out of nature (see e.g., Gregory, 2012). More generally, modernist rationality emerged out of an early Enlightenment rejection of teleology that may challenge any attempt to study humanity-as-it-should-be within a wholly immanent ideological surround (MacIntyre, 1981).

Relative to a dialogical meta-perspective, these results illustrate the potentials of bringing ideological surrounds into conversation. A few contextuality effects suggested only minor problems in communicative competence because these effects were relative rather than absolute. Ideological compatibilities probably represent the “low hanging fruit” that a dialogical meta-perspective can harvest. Compatibilities are likely to be accompanied by

incompatibilities. Empirical translation schemes typically presuppose compatibilities, but at least theoretically, they could also be used to analyze suspected incompatibilities. In this circumstance, the prediction would be that translations would correlate negatively rather than positively with items from a relevant psychological scale. Correlations of the religious and nonreligious expressions of such a construct with other variables would then clarify the dynamics of their incompatibility. Other ISM methodologies are also available for promoting dialogue about incompatibilities as well as compatibilities (Watson, 2011). In the future, therefore, researchers may wish to supplement dialogues about self-control with dialogues about processes that may move in a more incompatible direction, including perhaps the liberation and actualization of the self and also its creativity. More generally, a dialogical meta-perspectival commitment to Peace should create an increasingly sophisticated dialogical “space” in which efforts to promote greater understanding and cooperation could be explored.

### **Conclusion**

In his influential work, *A Secular Age*, Taylor (2007) argues against the plausibility of an inexorable secularization of culture. Phenomenological considerations, he argues, demonstrate that Enlightenment reason will not, and indeed cannot, wholly replace religious faith. As seen within the ISM, problems of infinite regress and incommensurability suggest the same possibility. Taylor claims that such circumstances require understandings of social life that are not based upon “spin” (Taylor, p. 551). Spin can be interpreted as the creation of knowledge that reflects overconfidence in the full adequacy of the standard of one’s own community to falsify other social rationalities. In opposition to this closed perspectives, Taylor recommends the development of more open “takes” on social life. Takes do not dismiss other social rationalities, do not assume that they can be falsified, and work to understand the dynamics of their viability. This investigation and the ISM more generally suggest that a post-postmodern future objectivity in the psychology of religion will require



both a social science of Immanent Takes and a social science of Transcendent Takes. Given the difficulties of a world defined by a vast array of incommensurable rationalities, and not just those in the psychology of religion, the further suggestion is that a social science of Dialogical Takes will be essential as well.

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Table 1

*Partial Correlations among Religious Orientation, Perceived Stress, Self-Esteem, Subjective Well-Being, Depression, and Anxiety*

Variable	1.	2.	3.	4.	5.	6.	7.
1. Intrinsic Orientation	-	.36***	-.36***	.26***	.21**	-.40***	-.30***
2. Extrinsic Personal Orientation		-	-.27***	.20**	.35***	-.31***	-.13
3. Perceived Stress			-	-.63***	-.61***	.65***	.57***
4. Self-Esteem				-	.56***	-.69***	-.43***
5. Satisfaction with Life					-	-.62***	-.22**
6. Depression						-	.47***
7. Anxiety							-

\*  $p < .05$       \*\*  $p < .01$       \*\*\*  $p < .001$

*Note.* Partial correlations control for gender ( $N = 205$ ).

Table 2

*Partial Correlations between Self-Control Items and Muslim Translations*

Self-Control Item	<i>r<sub>ab.c</sub></i>
Muslim Translation	
1. I am good at resisting temptation. I take refuge in the Lord from temptation.	.30***
2. I have a hard time breaking bad habits. (R) My heart has become so hardened that I am not able to kick my bad habits. (R)	.38***
3. I am lazy. (R) I generally put off performing good deeds. (R)	.28***
4. I say inappropriate things. (R) I fall into the traps of Satan and fail to speak the forgiving and kind words that God wants me to speak. (R)	.23**
5. I do certain things that are bad for me, if they are for fun. (R) When I hear <i>Adhan</i> or face other religious responsibilities, I cannot leave the things I am enjoying and do what I should do. (R)	.21**
6. I refuse things that are bad for me. In my submission to God, I turn away from anything senseless, vain, and idle.	.33***
7. I wish I had more self-discipline. (R) I wish I had firmer steps in God's path. (R)	.23**
8. People would say that I have iron self-discipline. My religious friends know that I am firmly committed to do what is just and good and to avoid what is evil.	.26***



- |   |        |
|---|--------|
| 9. Pleasure and fun sometimes keep me from getting work done. (R)<br>What I want to do sometimes prevents me from doing<br>what God says I should do. (R)   | .30*** |
| 10. I have trouble concentrating. (R)<br>I have trouble being attentive to God throughout the day as<br>I should be. (R)  | .28*** |
| 11. I am able to work effectively toward long-term goals.<br>My attempts to remain close to God energize me to work<br>effectively toward righteous long-term goals.  | .27*** |
| 12. Sometimes I can't stop myself from doing something even if I know<br>it is wrong. (R)<br>Sometimes I can't stop myself from doing something, even<br>if I know it is a sin. (R)   | .43*** |
| 13. I often act without thinking through all the alternatives. (R)<br>Most of the time I react immediately to difficult circumstances<br>without trying to understand how God would answer my<br>questions about the challenges I face. (R) | .24*** |

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\*  $p < .05$       \*\*  $p < .01$       \*\*\*  $p < .001$

*Note.* Partial correlations control for gender ( $N = 205$ ). Items followed by “(R)” are reverse-scored statements and translations expressing a lack of self-control. In the fifth item translation, *Adhan* refers to the Muslim call to prayers.

Table 3

*Partial Correlation and Multiple Regression Analyses Examining Associations of Self-Control (SC) and Muslim Self-Control (MSC) with Other Variables*

Variables	Partial Correlations			Multiple Regressions				
	SC	MSC	Z	Step 1		Step 2		
				$R^2$	Gender $\beta$	$\Delta R^2$	SC $\beta$	MSC $\beta$
Intrinsic Orientation	.33***	.41***	1.31	.03*	-.18*	.17***	.13	.33***
Extrinsic Personal	.30***	.23***	1.06	.06***	-.25***	.09***	.26**	.07
Perceived Stress	-.54***	-.51***	0.58	.00	.02	.34***	-.38***	-.29***
Self-Esteem	.54***	.42***	2.21*	.04***	-.19**	.29***	.47***	.13
Subjective Well-Being	.41***	.37***	0.67	.03*	-.17*	.18***	.30***	.19*
Depression	-.45***	-.39***	1.03	.00	.00	.22***	-.34***	-.19*
Anxiety	-.49***	-.39***	1.75	.01	-.09	.25***	-.42***	-.14

\*  $p < .05$       \*\*  $p < .01$       \*\*\*  $p < .001$

*Note.* Partial correlations control for gender ( $N = 205$ ).

Table 4

*Self-Control and Muslim Self-Control as Mediators of Relationships for the Intrinsic Religious Orientation as the Independent Variable Predicting Various Religious and Psychological Dependent Variables*

Dependent Variable	$R^2$	Total Indirect Effect (LL to UL)	Indirect Self-Control (LL to UL)	Indirect Muslim Self-Control (LL to UL)	Direct without Mediators	Direct Effect
Extrinsic Personal Orientation	.22***	.09 (.01 to .19)*	.10 (.01 to .21)*	-.02 (-.13 to .10)	.52***	.43***
Perceived Stress	.36***	-.21 (-.29 to -.13)*	-.11 (-.19 to -.06)*	-.09 (-.16 to -.03)*	-.36***	-.15*
Self-Esteem	.33***	.23 (.14 to .36)*	.18 (.10 to .29)*	.05 (-.03 to .15)	.31***	.08
Satisfaction with Life	.21***	.25 (.15 to .39)*	.15 (.06 to .26)*	.11 (.01 to .23)*	.32***	.07
Depression	.28***	-.16 (-.26 to -.10)*	-.12 (-.21 to -.05)*	-.05 (-.13 to .03)	-.47***	-.31***
Anxiety	.27***	-.21(-.32 to -.11)*	-.16 (-.26 to -.09)*	-.05 (-.14 to .03)	-.37***	-.16

\*  $p < .05$       \*\*  $p < .01$       \*\*\*  $p < .001$

*Note.*  $R^2$  values assess the overall significance of the mediation model. The “indirect effect” examines whether the influence of the mediator(s) was significant as defined by the lower limits (LL) and upper limits (UL) of the confidence intervals. Indirect effects represent the association between the independent variable and the mediator(s) times the association between the mediator(s) and the dependent variable. Tests of significance used 95% confidence intervals that were bias corrected and based upon 1000 bootstrap samples. Confidence intervals that do not include 0 identify a significant indirect effect at the .05 level. “Direct without Mediator” effects reveal the association of an independent variable with the dependent variable, whereas the “Direct Effect” describes this same relationship after accounting for the influence of the mediators. All analyses controlled for gender.

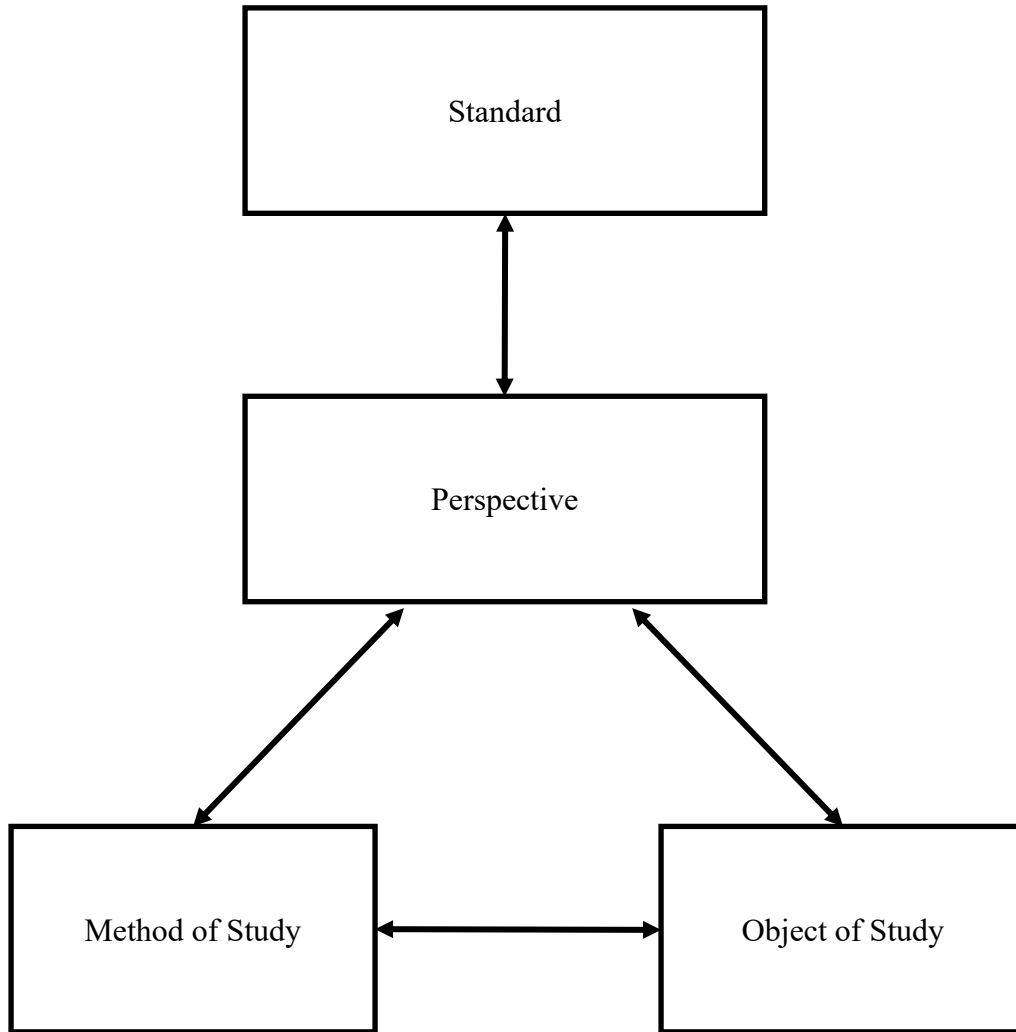
Table 5

*Self-Control and Muslim Self-Control as Mediators of Relationships for Perceived Stress as the Independent Variable Predicting Various Religious and Psychological Dependent Variables*

Dependent Variable	$R^2$	Total Indirect Effect (LL to UL)	Indirect Self-Control (LL to UL)	Indirect Muslim Self-Control (LL to UL)	Direct without Mediators	Direct Effect
Intrinsic Religious Orientation	.22***	-.17 (-.26 to -.10)*	-.03 (-.14 to .07)	-.14 (-.24 to -.06)*	-.41***	-.19*
Extrinsic Personal Orientation	.16***	-.18 (-.34 to -.04)*	-.16 (-.33 to .01)	-.02 (-.17 to .11)	-.41***	-.23
Self-Esteem	.47***	-.19 (-.30 to -.08)*	-.19 (-.34 to -.09)*	.01 (-.08 to .11)	-.79***	-.60***
Satisfaction with Life	.41***	-.10 (-.25 to .04)	-.08 (-.24 to .07)	-.02 (-.14 to .10)	-.95***	-.85***
Depression	.44***	.09 (-.00 to .19)	.08 (-.04 to .20)	.01 (-.08 to .10)	.78***	.69***
Anxiety	.38***	.18 (.07 to .31)*	.17 (.06 to .31)*	.01 (-.10 to .10)	.72***	.54***

\*  $p < .05$     \*\*  $p < .01$     \*\*\*  $p < .001$

*Note.* For details associated with these analyses, see the note for Table 4.



*Figure 1.* Past objectivity as defined by a social rationality defined by the “seeing” associated with the perspective of only a single standard.

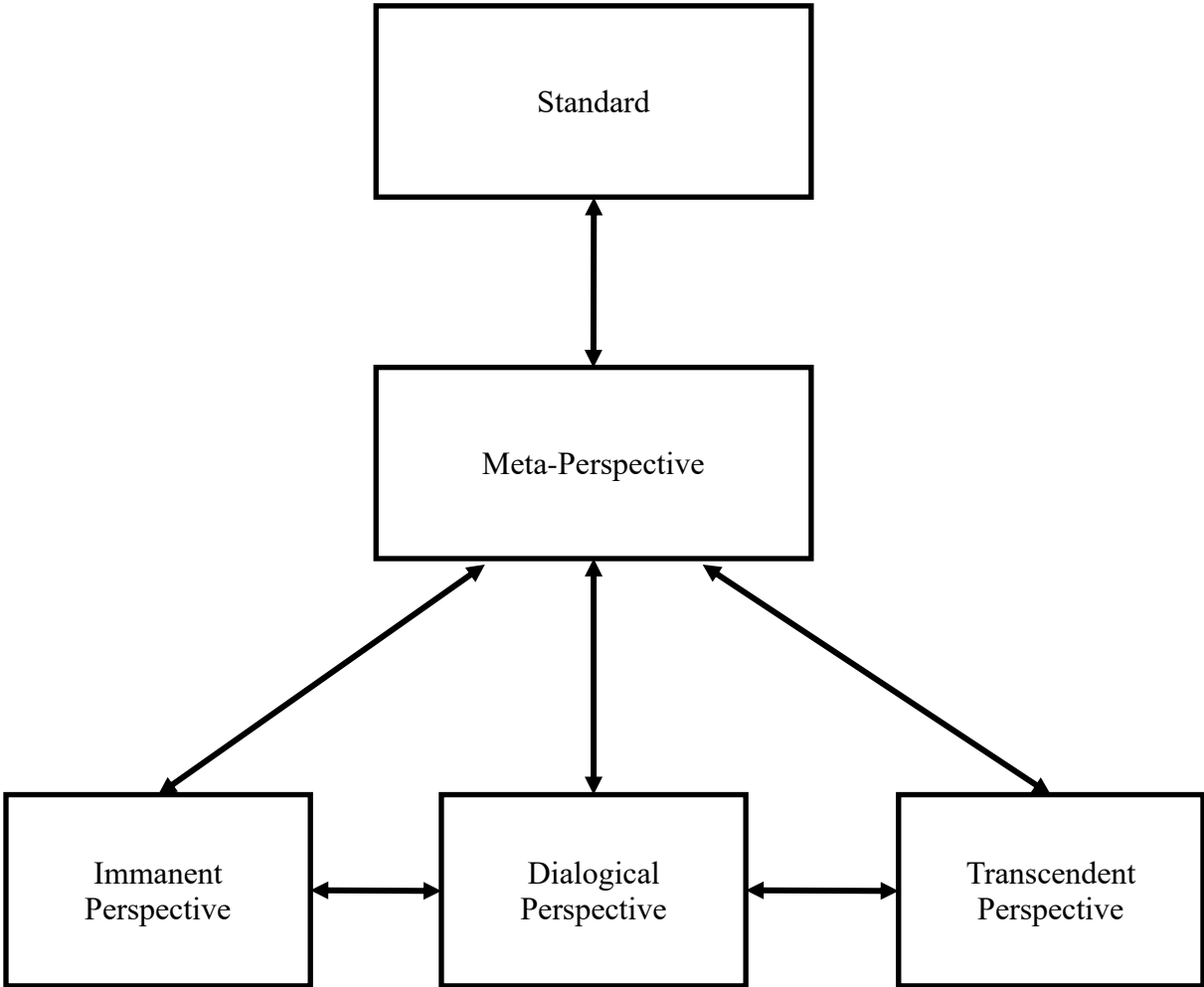


Figure 2. Future objectivity defined by a “higher” meta-perspective on multiple past objectivities as described in Figure 1.