

Coding Gender

USING IMP TO CONSTRUCT A CONTENT ANALYSIS OF GENDER DEFINITIONS IN SCIENTIFIC RESEARCH

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The pervasive influence and conceptual complexity of gender as a scientific construct has led to attempts to explain it from multiple perspectives. When each of these perspectives is offered, it tends to be presented as a complete explanation. Each perspective, however, likely offers only a partial truth concerning the enactment of gender. The recognition of the partiality of these perspectives indicates that each should be considered in some form when trying to address the full complexity of gender. It also makes clear that none should be privileged above any other. Through the application of the Integral model and Integral Methodological Pluralism (IMP), this article develops a broader and deeper conceptual and operational model for the study of gender than those that have been typically applied.

Introduction

Even before we take our first breath we are proscribed a “gender.” In childhood, we are taught, based on our biologically determined sex, what appropriate and inappropriate behavior is. As adolescents, we are pressured by peers and other social groups to conform to societal gender-oriented roles, which are often highly inflexible. Finally, in adulthood, we are proscribed even more specific gender-roles. These gender-roles are again based, if not solely, on biological sex. However, as will be discussed throughout this article, gender-roles are heavily influenced not only by biology, but by psychology and culture as well.

Gender not only influences our individual experiences but our collective experiences as well.¹ For example, in foraging societies, gender has relatively little impact on social interaction outside of biological sex. As more advanced agrarian societies develop and the recognition of gender (primarily in the form of biological sex) increases, it begins to interact to a greater degree with the dominant modes of production. With the introduction of even more technological advancements (e.g., the industrial revolution), however, the influence of biological sex on culturally defined gender-stereotypes, our individually defined gender-identities, and socially proscribed gender-roles begins to decrease. As new modes of production are developed, societies are freed from their reliance on biologically driven gender-roles, and males and females experience decreased gender-role rigidity. As discussed in more detail below, this same general path towards decreased rigidity can be found when looking at gender-stereotypes and gender-identity as well. Even biological sex, something that is often viewed as a dichotomy, shows signs of decreased polarization as individuals develop across the life-span.

Explanations of Gender

Because of the pervasive influence and conceptual complexity of gender as a construct, individuals have attempted to explain it from multiple perspectives (e.g., the biological, psychological, cultural, and social perspectives). Despite the recognized complexity of gender as

a construct, when each perspective is offered, it tends to be presented as a complete explanation. In addition, all of these perspectives have been positioned against each other in the scientific literature at some point.² Those who believe biology alone determines gender will often discount the influence of the psyche, as well as the many cultural and social influences on gender. This is also true for those who address gender from each of the other perspectives. However, it is likely that each of these perspectives offers only a partial truth concerning the enactment of gender. The recognition of the true but partial nature of these perspectives is essential, as it indicates that each should be considered in some form when trying to address the full complexity of gender as a social science construct. It also makes clear that in general none of these different perspectives on gender should be privileged above any other. In those contexts where such a privileging of one or more perspectives is warranted – clear criteria for such a positioning should be presented and argued for while acknowledging the value of the other perspectives.

Considering the foundational nature of gender in human existence, it is no wonder that it also has become a fundamental construct in the study of human behavior. Social scientists have developed a number of perspectives and a multitude of theories that espouse the influence of gender on human behavior. Many of these theoretical perspectives attempt to address gender from one of the four perspectives noted above (i.e., biological, psychological, cultural, or social). Although each of these theories may provide a deeper understanding of one aspect of the complex ways in which gender is enacted, none of them are complete. In order to address the incomplete nature of these theories, other theorists have attempted to bridge the gap between two or more of these perspectives. In doing so, these theorists have developed more complete theoretical frameworks than those offered by individual perspectives. But even these more complex theoretical frameworks are limited.

Specifically, no theory has yet been developed that includes the influence of each of the various four perspectives simultaneously. Also, no theory has yet been developed that gives value to each perspective's individual truths, while still honoring the value of each of the other perspectives as well. Even those theories that include more than one aspect of gender continue to devalue the aspects that they do not include (or enact).

Obviously if gender has been treated as a fundamental construct in scientific theory, it then must also be emphasized as a fundamental variable in the scientific study of human existence. It has become common practice in the sciences generally, and in the social sciences more specifically, to include some form of gender variable in empirical studies. This is no more evident than in the case of criminology.

Over half of the articles published in two top criminology journals (i.e., *Criminology* and *Justice Quarterly*) during the years 2003 and 2004 included some form of gender variable in the analysis.³ Upon further review, it was found that almost all of the articles that did not include a gender variable were those that did not include an analysis (e.g., theoretical pieces or book reviews) or those that included single-sex samples. Further, the relevance of gender as a variable in the criminological literature does not seem to depend on the specific purpose of the study. It appears as though in the criminological literature some form of gender variable is included in almost every empirical study. These findings support the notion of the fundamental nature of gender as a variable in social science research. While the inclusion of gender variables seems to

be, and should be, considered necessary for the study of human behavior, the operationalization of gender variables continues to be limited.

Even those theorists who include more than one perspective when developing a conceptual model are limited by the rigid measurement practices accepted in the social sciences. This is evidenced by the gap between the theoretical or conceptual definitions of gender and the measurement or operational definitions of gender found in the social sciences. For instance, the content analysis discussed above also showed a pattern of reducing gender variables into simple biological terms. Out of the 137 articles reviewed, only one (.7%) used a non-biological measure of gender. In addition, 60.5% (n=46) of the articles that included a gender variable (n=76), mis-operationalized gender as biological sex.⁴ These findings support the notion that criminologists, and likely other scientists, continue to reduce gender into a dichotomous variable that is based on external observations (i.e., biological sex).⁵

Focus of This Article

To be sure, theorists who address gender present a well articulated argument for the inclusion of the biological, psychological, cultural, or social perspectives on gender in their studies. In addition, theories addressing gender from one or more of the perspectives discussed above continue to be developed. Therefore, our conceptual knowledge of gender continues to grow. However, even our current conceptual knowledge seems to be based in a fragmented view of gender. Additionally, we seem to continue to be limited by our rigid adherence to the measurement of gender through biological sex. It is hard to imagine that any scientist is willing to put forth an argument that biological sex is the sole determinant of how an individual experiences or enacts gender. Unfortunately, this is exactly what scientists do when they rely on simple external observations as a proxy measure for the complexity of gender.

In fairness, it is possible that biological sex is an appropriate proxy for all of the other aspects of gender discussed in this introduction. But the conceptual knowledge that we have gained strongly suggests that this is not necessarily the case. Also, until we are able to truly test biological sex as a proxy measure against measures of the other dimensions/enactments of gender we will not know if it is actually an adequate proxy. The first step in this process is to assess our current conceptual and operational models of gender within the scientific literature. Once this task is accomplished, we can begin to assess the strengths and weaknesses of our current approaches to understanding gender and, ultimately, develop a more inclusive/integrative and appropriate methodological framework for studying gender as a complex construct.

While this seems like a logical progression of the steps needed in order to develop a more appropriate methodological framework, scientists have been restricted by a lack of meta-theoretical/methodological frameworks that could be used to assess our current approaches to studying any construct, let alone one as complex as gender. In this article, it will be argued that the Integral model and Integral Methodological Pluralism offer the meta-theoretical/methodological framework necessary to achieve these goals.

The primary focus of this article is to present a strategy for assessing our current conceptual and operational approaches to understanding gender. The strategy presented here is based in the application of the Integral model, generally, and Integral Methodological Pluralism (IMP)

specifically. This article will describe the development of a coding scheme that is currently being used within the context of a doctoral dissertation in the field of criminology. The overall goal of this article is to offer this coding scheme as one example of how the Integral model can provide the necessary transdisciplinary framework for studying complex constructs such as gender. In addition, this article will outline a multi-methodological approach to assessing validity within a research context. This multi-methodological approach is also based within the Integral model.

I begin with an overview of the treatment of gender within scientific discourse. This overview is framed within the context of the Integral model and its corresponding AQAL approach.⁶ This is followed by the presentation of the coding scheme and its foundations in the IMP framework. Finally, this article will include a brief discussion of the use of the Integral model as a framework for a multi-methodological approach to assessing validity in research.

Gender in Scientific Discourse

While a full explication of the various approaches to studying gender is beyond the scope of this journal article, what follows is intended to offer support for the notion that a multi-perspective approach to the study of gender is not only possible but necessary. The following discussion is based on an Integral assessment of the study of gender, which was conducted as part of the review of literature for a doctoral dissertation research project.

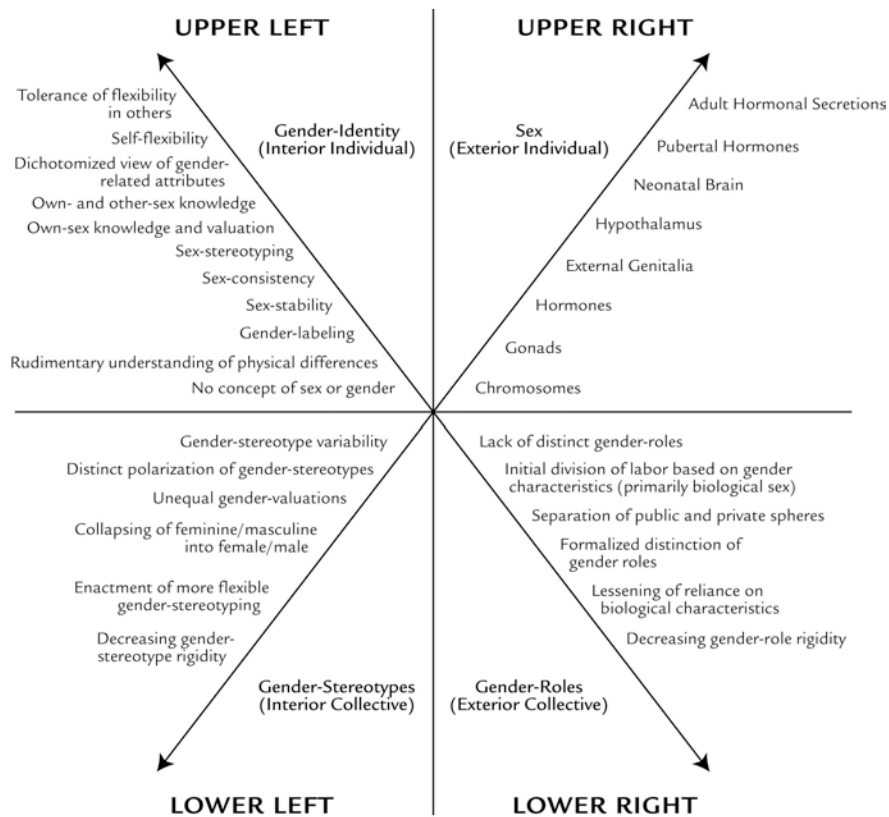


Figure 1. Multi-Perspective Approach to Gender Development

Figure 1 presents the overall findings of the literature review as it relates to the AQAL model. As will be seen, the quadrants correspond to the four domains that form the context for the developmental paths outlined in the following discussion. In essence, each path outlines one possible perspective on the levels/stages of development along the gender line within each quadrant/domain (i.e., the interior individual, interior collective, exterior individual, and exterior collective). These paths, however, are not the same as the actual domains/quadrants of gender. In other words, the paths outlined below are an example of possible perspectives on, but not the actual domains of, gender. More specifically, the paths represent the outside view/perspective of gender, from each of the four domains/quadrants. This is an important issue for the proposed coding scheme, because it helped inform the construction of IMP and its corresponding eight zone/eight methodology approach to studying any human phenomena. This will be discussed in more detail later in this article.

A Multi-Perspective Approach

The developmental paths outlined in figure 1 are informed by a wealth of research in a number of scientific disciplines, including biology, genetics, psychology, sociology, anthropology, and economics. While a full explication of the complexity of gender as a scientific construct was vital to the construction of the proposed coding scheme, it is well beyond the scope of the current article. Instead, the presentation will concentrate on two important aspects of the paths outlined in figure 1: 1) similarities in developmental progression and 2) interrelationships among the perspectives.

Similarities in Developmental Progression

As stated above, figure 1 is a graphic representation of the findings from an extensive review of the literature on gender in several scientific disciplines. The first important finding from this review of the literature is that all four of the developmental paths follow a generally similar progression from pre-differentiation to differentiation to integration.

For example, from the biological perspective, we begin life as sexually undifferentiated beings, from the psychological perspective we begin with no clear understanding of sex or gender, from the social perspective societies begin with no conscious gender-role differentiation, and from the cultural perspective our collective understanding begins with the undifferentiated being and no conscious understanding of collective gender-stereotypes.

As our development along these four paths continues, however, we experience differentiation, both as individuals and collective groups of individuals. The specific forms differentiation takes depends, of course, on the particular developmental paths or perspectives you are viewing. For instance, from the biological perspective, sexual differentiation occurs with the development of the gonads, from the psychological perspective sexual differentiation occurs when an individual develops the ability of gender-labeling, from the social perspective differentiation occurs with the initial division of labor based on specific enactments of gender characteristics (e.g., biological sex differences), and from the cultural perspective differentiation occurs when our collective beliefs about men and women lead to the enactment of distinct gender-stereotypes and differential valuation.

At this point, all four developmental paths continue towards increased differentiation. The introduction of hormones, the development of external genitalia, the formation of the hypothalamus and neonatal brain structures, and the spike in hormones during puberty all mark the continued biological differentiation between females and males. Additionally, the abilities of sex-stability, sex-consistency, and sex-stereotyping, as well as own-sex knowledge and valuation, own- and other-sex knowledge, and our dichotomized view of gender-related attributes, are all associated with increased differentiation in the formation of a distinct gender-identity. Similarly, the initial division of labor based on gender characteristics is followed by the continued separation of the public and private spheres and the separation of females into the private sphere and males into the public. Also, the distinct polarization of gender-stereotypes is experienced in conjunction with the increasingly unequal valuation of men and women.

But as development along these paths continues, we see that differentiation gives way to integration. When we look at the biological and psychological developmental paths, we can see that following the differentiation discussed above, individuals may move on to an enactment of the integration of the previously differentiated self. Looking at sex development, the life of the adult is marked by an integration of the female and male self through the secretion of adult hormones. When addressing gender-identity development, research suggests that individuals begin to express self-flexibility and tolerance towards flexibility in others. Specifically, individuals begin to enact both the feminine and masculine gender-identity to form a more complete and fully integrated understanding of who they are and how they can operate within the larger society.

Similarly, when we look at the social and cultural developmental paths, we can see that increased development also leads to integration. From the social perspective, the continued distancing of modes of production from biological determinism that is enacted in most industrialized societies (e.g., less reliance on physical labor) leads to less rigidly defined gender-roles and more opportunities for the integration of formerly dichotomized gender roles. From the cultural perspective, our unequal valuation of men and women is followed by the separation of feminine/masculine from female/male and a decrease in the rigid conceptions of the value of men and women that were previously enacted through exaggerated biological differences. Based on these findings, we can see that development along all four paths leads to decreased rigidity in how gender is enacted within these various perspectives. Also, considering how gender is enacted within each of these perspectives is an important step in the development of a fuller and richer understanding of gender as a complex construct in social science research and literature. In the next section, we will consider the combined influence of each of these perspectives in more detail.

Interrelationships Among the Perspectives

The discussion that follows will focus, for illustration purposes, on some of the interrelationships among the four developmental paths outlined in figure 1. Also, this discussion is intended to shed further light on the need for social scientists to include, or at least consider, each of the four developmental paths and the perspectives from which they are viewed.

Although many may consider biological sex development as a static or at least uniform path from conception to death, the examination of research in this area suggests otherwise. There are

a number of instances in which sex development is influenced by, and influences the other developmental paths. One of the more obvious and striking examples of this is what happens when an individual's sex development takes the form of a biological sex divergence (e.g., intersexed individuals or pseudohermaphrodites). These individuals are usually forced, through surgery or hormonal treatments, into one of the two culturally and socially accepted sexes. For most, the thought of raising a child with ambiguous genitalia can be extremely difficult and frightening. The fear that many parents feel is likely deeply rooted in cultural beliefs and expectations.

The fear that many parents feel when their child is born with signs of ambiguous or divergent sex development is echoed by the larger cultural context within which they operate. Cultural beliefs about what it is to be a man or woman (and even female or male) work in conjunction with parental fears, creating mutually reinforcing ideas about what is "normal." These worries are also sometimes reinforced by the inability of gender-role configurations to make room for more than two sexes. If an individual is neither male nor female, it becomes difficult, if not impossible to determine which roles they should play in our current social systems, and as we know such individuals are often marginalized. This is the type of situation that led Teresa Meade and Merry Wiesner-Hanks to conclude that in certain situations "gender determines sex rather than the other way around."⁷

Roy D'Andrade came to a similar conclusion when discussing the relationship between secondary sex characteristics and gender-roles. D'Andrade suggests that in societies where males "perform those activities requiring rapid and extreme exertion" differences between female and male secondary sex characteristics are more pronounced.⁸ This speaks to the interrelationship between biological sex and gender-roles. In societies where the male gender-role requires physical strength and exertion, we see an exaggeration of the general biological differences between female and male muscular structures and body types. In societies where the male gender-role does not require a high degree of physical strength, secondary sex characteristics such as body type and musculature are more evenly matched among females and males.⁹

Additionally, all of the stages that an individual will progress through while forming their particular gender-identity are fundamentally influenced by all of the other perspectives as well. For instance, the capacity for gender-labeling is deeply impacted by an individual's ability to differentiate between specific physical (i.e., biological) cues. Also, the ability of sex-consistency, at least in terms of how it is measured within psychological literature, is impacted by social and cultural cues. For example, an individual is said to have achieved sex-consistency when they are able to conserve another individual's sex, even when faced with transformational changes (e.g., holding a ball to holding a purse, wearing a dress to wearing pants). These transformational changes, however, are rooted in our own cultural views (i.e., gender-stereotypes) about what it is that makes someone a boy or girl, man or woman. In addition, as Sandra Lipsitz Bem pointed out, this ability is also contingent on the individual's recognition that genital knowledge is the defining attribute of sex.¹⁰

Studies also suggest that sex-stereotyping (one of the stages of gender-identity development) is related to gender-labeling.¹¹ In essence, those who can distinguish between females and males based on biological cues (e.g., facial features) are more likely to apply and adhere to specific

sex-based gender-stereotypes, and internalize these stereotypes into their own gender-identity. These interrelationships have been recognized by some researchers and theorists who have formed more inclusive theories of gender-identity development.¹²

Looking more closely at the contribution of social learning theory to our understanding of gender-identity development also provides an example of the value of a multi-perspective approach. Specifically, Walter Mischel suggested that individuals will discriminate between sex-typed behaviors based on the influence of parents and other models.¹³ The influence that these particular models have on gender-identity development is often related to the determination of the power relationships that exist within the family and between these models. Because power relationships are a direct indication of gender-roles, it becomes evident that gender-roles are influencing gender-identity formation. Since power relationships are also related to sex (i.e., body size) and gender-stereotypes (i.e., the notion that men are powerful and aggressive and women are weak and passive), this process offers another example of how all four of these developmental paths need to be considered when addressing the complex ways in which gender is enacted.

There is also a great deal of evidence to suggest that the initial formation of gender-roles which occurs during the shift from band/foraging societies to tribal/horticultural societies has at its base a very real connection to sex. It has been noted that this initial division of labor had much to do with physical constraints placed on women who were either pregnant or rearing children. However, if biological constraints were the only basis for gender-roles then, as biological differences became less important (e.g., through the introduction of more advanced and less biologically driven technologies) gender-roles would become less rigidly defined. This, however, does not always occur. In some instances there is a lag between newly formed gender-roles and gender-stereotype development (e.g., pockets of traditional mythic belief structures within the postmodern industrial society).

For instance, as more advanced technological approaches to production are developed and these roles become less reliant on biological sex differences, our gender-roles become less rigidly defined. The biological basis for these gender-roles, which may have made at least some sense when they were first developed, has long been made obsolete within societies that have developed more advanced technologies, which no longer depend on biological characteristics. However, when a lag exists between these newly formed gender-roles and culturally derived gender-stereotypes regarding the proper place for men and women, it is possible for these remnants of previous gender-stereotypes to gain some traction and place strain on individuals when performing these new roles.¹⁴

Last, we must consider the impact that direct changes in gender-role configurations have on the lives of men and women. To illustrate this particular relationship, we can consider some of the impacts that increased participation for women in the public sphere has had on men's and women's lives. For example, Nancy Bonvillain points out that even when women entered the educational system at a higher rate, they were often taught "within the ideological and social constructs of women's accepted roles. Women were schooled in domestic science, child rearing, and the arts and humanities. They were encouraged to be chaste and mindful of their familial duties."¹⁵ In this example, gender-role transformations that attempted to integrate notions of

equality between females and males were constrained by gender-stereotypes that were based in a pre-rational belief structure.

Along these same lines, the feminization and masculinization of particular jobs seems to be, at least in part, a reaction to the increased involvement of women in the public sphere. As Sonya Lipsett-Rivera notes, as females were more likely to enter the public work force, certain jobs became feminized and others masculinized.¹⁶ This process was one way in which gender-stereotypes were able to remain intact, even in the face of serious contradictions with newly forming gender-roles. The process of feminizing and masculinizing certain occupations also worked to alleviate some of the stress placed on both men and women in the workforce, and reduce the likelihood of resentment among men as women began to compete for equal treatment in the workforce.¹⁷

But, the relationship between gender-roles and gender-stereotypes illustrated in these few examples can also work in the opposite direction. For instance, in many cultures, gender-stereotypes surrounding women support notions of passivity, domesticity, and familial responsibility. These gender-stereotypes, however, become less influential when individual women must, in terms of survival, work outside the home, often in occupations which require physical exertion.¹⁸ In these instances, the particular role that an individual plays may hold more weight than the culturally proscribed gender-stereotypes.

In the above examples, the interrelationships among all of the perspectives become evident. Again, these are only some of the many ways in which sex (UR), gender-identity (UL), gender-roles (LR), and gender-stereotypes (LL) combine to influence our understanding and enactment of gender. But these examples are not limited to the research participants, cultures, and societies that we as scientists choose to study. We are also impacted by these varying perspectives, both as individuals (i.e., scientists) and a collective (i.e., the scientific discipline). What we choose to study, and the perspectives we choose to incorporate into those studies have serious implications for our ability, as scientists and scientific disciplines, to fully grasp the complex nature of gender.

This speaks directly to the primary focus of this article. Specifically, it is essential that we begin to consider how our decisions to incorporate one or more of these perspectives influence our own understanding of gender, as individual scientists as well as collective disciplines. Considering these issues is essential to gaining a clear understanding of what successes we have had and what areas we must improve on in order to construct a deeper, more complete approach to understanding gender and its relationship to our own and others' lived experiences.

The Integral Model, IMP, and Researching Gender

Beyond describing the developmental paths of gender, the general purpose of the above discussion was to provide evidence that supports the establishment of the four basic domains of gender. Therefore, in addition to outlining the developmental progression of gender from these different perspectives, each of the four developmental paths also corresponds to a different domain of gender. Again, gender-identity corresponds to the interior individual domain, sex corresponds to the exterior individual domain, gender-stereotypes correspond to the interior collective domain, and gender-roles correspond to the exterior collective domain. Therefore, the

four perspective approach which emerged from the review of literature and was presented in figure 1, represents both the four basic domains of gender (a quadratic analysis), as well as four of the possible perspectives on those domains (a quadrivial analysis).

It is important, however, to consider that the review of literature which informed the construction of the four developmental paths drew heavily on research and scholarly writings from a number of disciplines. The reliance on literature from these disciplines, therefore, has had a great impact on the particular formation of the developmental paths outlined thus far. The four paths are direct expressions of the disciplinary viewpoints which form the foundations for research in these various disciplines.

In addition, the individual researchers who conducted the studies which informed the construction of these developmental paths are all impacted by disciplinary structures and norms, as well as their own individual levels of development, beliefs, and behavior. Scientists are not only viewing these domains of gender from the outside, but also experiencing gender development personally (i.e., individually) and in their disciplinary culture (i.e., collectively). The distinction between the perspectives on gender development and the experience of gender development has serious implications, not only for us as individuals, but for scientists and their ability to fully address the complexity of gender as a multifaceted construct. These points should be considered when attempting to assess our current approaches to studying gender within the social sciences.

For instance, where scientists are situated within the context of these domains and which perspectives they take, will impact the approaches they employ to study gender. Therefore, to begin to gain a clearer, more complete understanding of gender, we must consider current scientific approaches in relation to these domains and the various perspectives which correspond to them. A more precise analysis of the current state of scientific literature in relation to these domains should help reveal the strengths and weaknesses of our current approaches to studying gender. In addition, a more honest and open assessment of individual scientists' experiences of gender, within the context of the four domains, will likely help us in developing a deeper understanding of how individual Gendered development impacts the study of gender.

These two issues form the basis for the coding scheme and assessment of validity discussed below. Specifically, the coding scheme is intended to provide the framework for a more precise analysis of the current state of scientific literature in relation to the domains discussed above. Also, the proposed multi-methodological approach to assessing validity is intended to provide a framework for fully addressing the possible impact of individual gendered development (i.e., the researcher's development) on the research process.

The Eight Zones of IMP

In developing IMP, Ken Wilber recognized that realities as viewed from and through each quadrant are primarily disclosed by two different (though related) research methodologies, which focus on that quadrant from both an inside (i.e., first-person) and outside (i.e., third-person) perspective.¹⁹ As a result, Wilber has used the quadrants to organize eight irreducible methodological families, or zones of inquiry. These eight zones relate to the notion that each quadrant refers to a perspective on and actual dimension (or experience) of any phenomenon.

Therefore, Integral Theory claims that all phenomena (in this case gender) can be viewed through the eight methods and their associated disciplines (i.e., epistemology).

For the purposes of the proposed study, the eight zones will be discussed in terms of their relationship to these eight distinct perspectives and correlated methodological families. While it is important to remain cognizant of the ontological (i.e., experiential/dimensional) aspects of the quadrants and related zones, the proposed coding scheme is primarily concerned with these eight zones and their corresponding epistemological (i.e., quadrivial) approaches to understanding gender.

The eight zones, therefore, represent the inside or outside view of an interior or exterior in an individual or collective. In other words, there is an inside and outside view of gender-identity (i.e., interior individual), sex (i.e., exterior individual), gender-stereotypes (i.e., interior collective), and gender-roles (i.e., exterior collective). Thus, when applied to the study of gender, we obtain a multi-faceted framework in which to situate the major distinctions within the exploration and understanding of gender.

Applying this eight-zone approach to the four perspective approach outlined above, we can begin to see the utility of applying IMP and the Integral model to the study of gender. Figure 2 shows how both of these approaches relate to each other. Looking at figure 2, we can see that each domain/quadrant contains two zones, and each of these zones corresponds to the inside or outside view of that domain.

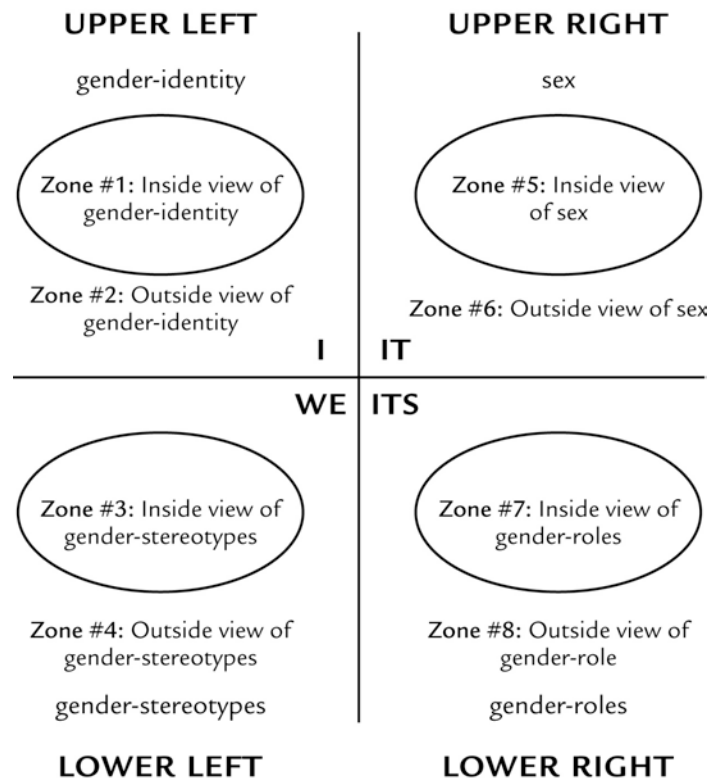


Figure 2. Eight-Zone Approach to Understanding Gender

At this point, I have provided some of the content which will become the foundation for the coding scheme. Specifically, I have identified the four domains of gender (i.e., gender-identity, sex, gender-stereotypes, and gender-roles), as well as at least one perspective on each of these domains (i.e., the four developmental paths outlined above or an outside view of each domain). As of yet, however, I have not addressed additional perspectives within each of the domains.

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For instance, zone #1 corresponds to the inside view of the interior individual domain of gender. Within the context of the study of gender, zone #1 corresponds to the inside view of gender-identity development, or how an individual experiences their own gender-identity. Unlike the outside view of gender-identity development outlined above, the inside view can not be disclosed from third-person observations or psychological tests. Instead, the inside view of gender-identity can only be disclosed by the individual her or himself. In other words, it is only through the use of different techniques, those aimed at providing a first-person account of gender-identity (e.g., in-depth interviews, autobiographical journaling, or contemplative practices), that we can begin to understand how an individual experiences their own interior individual domain (i.e., gender-identity). This same pattern exists within the other domains as well, where zone #3 corresponds to the inside view of gender-stereotypes, zone #5 corresponds to the inside view of sex, and zone #7 corresponds to the inside view of gender-roles. The developmental paths which were constructed from an extensive review of scientific literature should not be confused with the actual domains, nor should they be confused with the inside view of these domains. With this basic understanding of the Integral model and IMP in particular, I can begin to discuss how the model and IMP will be applied within the proposed coding scheme.

The Eight Methodologies of IMP

The most important implication of the IMP framework for the proposed coding scheme is that each zone corresponds to a distinct methodological family. You can not use the same methodology to tap into the outside view of the interior of an individual as you can to tap into the inside view of the exterior of a collective/group. Or, within the context of the proposed study, you can not use the same methodology to tap into an outside view of gender-identity as you can to tap into the inside view of gender-roles. Each zone, therefore, represents a different perspective and corresponds to a distinct methodological approach. Figure three presents these eight zones with their corresponding methodologies. Keep in mind that the methodologies included in figure three are not the only possible methodologies, but they do illustrate broad methodological families, by zone, each of which includes a variety of specific methods of inquiry.

Because each zone corresponds to a distinct set of methodologies, each zone also corresponds to a distinguishable type/set of conceptual and operational definitions. When we consider the eight zones and their corresponding methodologies, conceptual definitions, and operational definitions, we can begin to construct a clear picture of the relationships between conceptual and operational

definitions and with the methodologies to which they correspond. This eight-zone approach, therefore, provides a comprehensive framework for assessing the current state of our approaches to understanding gender.

For instance, social scientists have used and continue to use various methods of inquiry, as well as a variety of conceptual and operational definitions. However, as discussed in the introduction to this article, the conceptual definitions researchers use often do not match the operational definitions used to measure them.²⁰ Scientists and, in the case of the cited study, criminologists in particular use a range of conceptual definitions which cut across one or more of the zones discussed above, while primarily using operational definitions from only one zone (i.e., zone #6: the outside view of the exterior individual domain).²¹

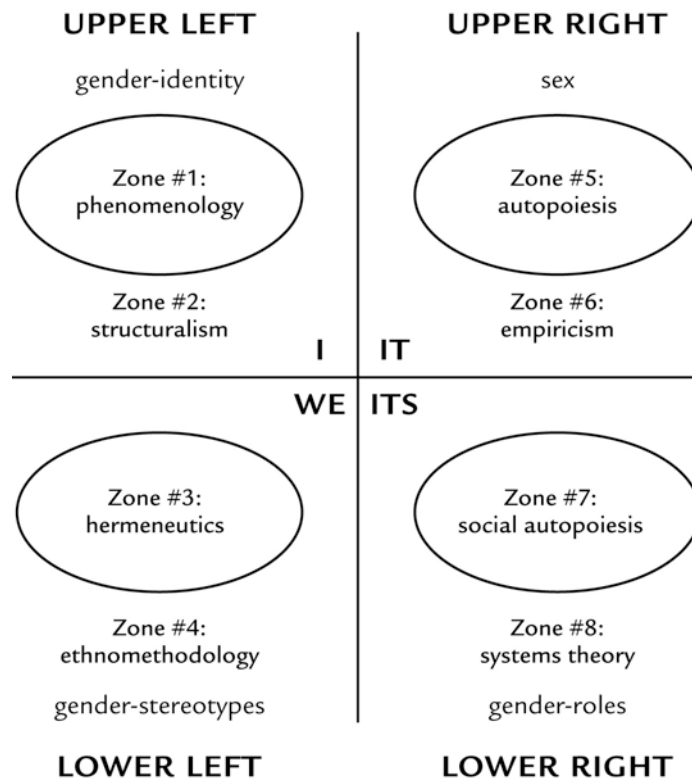


Figure 3. Eight Major Methodologies

Using the meta-framework described here, we can begin to sort out the various conceptual and operational definitions, as well as begin to assess whether we as scientists are applying these conceptual and operational definitions appropriately. This becomes possible through the creation of a coding scheme based within the context of the IMP framework and its corresponding eight-zone approach to understanding/gathering information.

It is important to keep in mind, however, that there are a large number of concrete conceptual and operational definitions that could fall within the various methodological families included in figure 3. The coding scheme presented in table 1 includes one sample conceptual and operational

definition for each methodological family. As such, the list of sample definitions should in no way be interpreted as exhaustive.

Looking at table 1, we can begin to see how the IMP framework can be applied in the manner which is described above. The first four columns of table 1 outline what has been discussed previously in terms of the relationships among the four quadrants/domains and the eight zones. Remember that each zone represents either an inside or outside view of one of the four quadrants/domains. For instance, zone #1 is an inside view of the interior of an individual, or an inside view of gender-identity, while zone #2 is an outside view of the interior of an individual, or an outside view of gender-identity.

Domain	Definition of domain	Zone	View	Methodological family	Perspective	Sample conceptual definition	Sample operational definition
Gender-identity	The aspects of gender which are experienced within an individual's own psyche	1	Inside	Phenomenology	Individual her/him self	The meaning that an individual places on their own gender-identity	Autobiographical account of gender-identity development
		2	Outside	Structuralism	Outside observer of individual	Then underlying structure of an individual's gender-identity	Bem Sex Role Inventory
Gender-stereotypes	Culturally shared beliefs about men and women within a given society	3	Inside	Hermeneutics	Members of group under study	The meaning of gender-stereotypes for a particular group	Focus group interviews disclosing shared beliefs about the value of men
		4	Outside	Ethnomethodology	Members of group or outside observer	Cultural patterns of symbolic interaction which disclose the underlying gender-stereotypes for a particular group	Examination of cross-cultural differences in relative value of females
Sex	Biological traits associated with being female or male	5	Inside	Autopoiesis	Individual her/him self	The unconscious heuristic maps of an organism's own biological sex	Cognitive mapping of brain structures at different points of biological development
		6	Outside	Empiricism	Outside observer of individual	The exterior indicators of an individuals' biological sex	Observed secondary sex characteristics among men/boys
Gender-roles	Behaviors or activities performed by females and males in a given society which have become institutionalized within various social systems	7	Inside	Social Autopoiesis	Members of group under study	The communication of gender-roles among members of a particular social system which delineate future communication of gender-roles	Focus group interviews disclosing communicative interrelationships among members of a group
		8	Outside	Systems Theory	Members of group under study or outside observer	Functional fit of gender-roles within a particular social system	Observed participation of women in the political system

Table 1. Application of IMP within a Gender Coding Scheme

At this point, we have the basic framework of IMP, and we have now established the eight zones and their corresponding domains within the context of the study of gender. Further, by applying each zone's view of gender within particular methodological families, represented by column five, we can begin to create a meta-framework for distinguishing between the various conceptual and operational definitions of gender currently being used within scientific research. In table 1, therefore, each zone has been linked to a distinct methodological family and corresponding perspective (column 6). In addition, these methodological families have been linked to the types

of conceptual and operational definitions that one might find within each particular family (column 7), as well as examples of possible conceptual (column 8) and operational (column 9) definitions.

Again, any comprehensive coverage of the various methods of inquiry, and correspondingly conceptual and operational definitions used within each family, is not only beyond the scope of this discussion but perhaps nearly impossible to obtain (seeing as new methods of inquiry are discovered and/or developed continuously). What we have here is a way to identify where and how a particular conceptual or operational definition fits within the IMP framework. The exact conceptual and operational definitions, are not, however, a set of a priori definitions (which may miss many of those currently being used), but rather, will emerge from the researchers' own language (e.g., through a content analysis of research articles in various scientific disciplines). It may be helpful, at this point, to offer an example of how this coding scheme can be applied to scientific research. In order to do this, an example from empirical literature within the field of criminology is provided for consideration.

Applying the Coding Scheme to Research: An Example from Criminological Literature

This example comes from a research article that was intended to explain the dramatic increase in female violent crime trends in the United States.²² Conceptually, Darrell Steffensmeier and associates offer two distinct explanations for the increase in girls' violence over the past decade or two. Each of these conceptual explanations corresponds to a different zone within the IMP framework and therefore fit differently into the coding scheme presented in table 1.

The first explanation is described as a "normative position." This position suggests that the recent trend toward increased girls' violence is due to an actual increase in the amount of violence committed by girls. As Steffensmeier and colleagues suggest, the "underlying theme of these diverse accounts [normative positions] is that the lives of adolescent girls have been undergoing major changes in ways that contribute to greater involvement in physical aggression and violence."²³ The main thrust of this argument is that the social position of females and young girls in particular has undergone changes which make them more likely to engage in violence. These changes include, for example, increased social freedom, increased economic stress due to changing roles in the family and workplace, and involvement in and exposure to youth gangs. Each of these examples is related to the specific roles that young girls play within a particular society. As these gender-roles change, so do the behaviors/activities of young girls, in some cases, leading to increased violence and aggressive behavior.

As can be seen by the concentration on gender-role variability and its relationship to adolescent girls' behavior, this conceptual explanation (definition) fits within zone #8. These are explanations that deal with the behaviors or activities performed by females and males in a given society, which have become institutionalized within various social systems, the definition of gender-roles provided in table 1. In addition, these explanations are based on the external observation of changes in adolescent girls' gender-roles over time. In other words, the normative position described by Steffensmeier is an example of an outside view of gender-roles, which corresponds to zone #8 within the domain of gender-roles. Finally, a researcher who is interested in this area must look at the functional fit of adolescent girls within the social systems under study and then draw conclusions based on those roles and their relationship to increased

violence. All of these factors indicate that this conceptual definition of the impact of gender on adolescent girls' violence fits within a zone-#8 approach.

The second conceptual explanation/definition is described by Steffensmeier and colleagues as a "constructionist view."²⁴ As the authors state it,

the label [constructionist view] designates a profound *cultural shift in penal philosophy and criminal justice policy* emergent over the past two to three decades toward the use of preventative punishment and risk management strategies that emphasize early identification and enhanced formal control of problem individuals or groups, particularly problem youth, combined with a growing intolerance of violence both in the law and in the citizenry at large.²⁵

They go on to say that "according to some observers, the primary target of this new *culture of crime control* centers on the protection and regulation of youth in general and perhaps girlhood in particular."²⁶

The relationship between these changing views on adolescent girls and the trend of increasing violence among female juveniles takes several forms. First, the changing views are expressed in terms of criminal justice approaches to crime control/prevention. For instance, a major shift in law enforcement culture towards targeting minor forms of aggression (e.g., slapping a family member or school fighting), the move to early proactive intervention strategies which also target youthful offenders, and the influence of the women's movement and feminism in general on the amount of attention paid to women and girls as victims and offenders have combined with a general law and order approach to crime control to increase the likelihood of adolescent girls coming into contact with the criminal justice system.²⁷

Second, the changing beliefs about women's and girls' involvement in crime/delinquency has led to "upcharging" (increasing the seriousness of charges for previously non-serious behaviors such as family squabbles and/or running away), the criminalization of previously "private violence" such as domestic abuse and intimate partner violence, and a decrease in tolerance among the family and society towards female juveniles.

All of these factors have as their starting point a change in beliefs surrounding women's and girls' position/value in society. As the public's perception of women/girls changes, so do criminal justice policies and practices. The policy changes, which the constructionist viewpoint argues has increased the perception of adolescent girls' violent behavior, are rooted in shifts in the culturally shared beliefs about women within a given society. Women and girls are no longer thought of as in need of special treatment within the criminal justice system. Or, on the other hand, women and girls are in special need of protection, but that protection now takes the form of increased formal control within the system as opposed to informal social and familial control.

Although the constructionist viewpoint described by Steffensmeier deals with criminal justice policy, it has its roots in a cultural explanation of changing gender-stereotypes. It is clear, therefore, that this conceptual definition deals with the domain of gender known as gender-stereotypes. It is also clear that this conceptual definition corresponds to a zone-#3 approach to

explaining the increase in adolescent girls' violence and aggressive behavior. This is so because it is based on the internalization of cultural beliefs by members of the criminal justice system. Theorists who argue a constructionist view do so by stating that members of the criminal justice system have shared beliefs about adolescent girls' behavior which are expressed through changing policies and practices. If members of the criminal justice system have not internalized, as a group, the culturally shared beliefs of the public in terms of intolerance towards female violence, then the policies and practices targeted at adolescent girls' violent behavior would not change. The explanation provided by Steffensmeier and associates and the factors described here all suggest that this is a zone-#3 conceptual approach.

Based on the discussion above, it would be appropriate for the article under review to include both a zone-#8 and a zone-#3 operational definition of the trend towards increased adolescent girls' violence. One example of a zone-#8 operational approach would be the observation of particular adolescent girls' changing roles within various social systems (i.e., the family, workplace, school) and the relationship between these changing roles and the girls' involvement with criminal/delinquent activity. An example of a zone-#3 operational approach would be focus group interviews with members of the criminal justice system, targeted at elucidating their shared beliefs surrounding the role of the criminal justice system in protecting adolescent girls and regulating their behavior.

Instead, the authors utilize secondary data analysis of both official reports of arrests and self-reported victimization/offending among male and female adolescents. For all intents and purposes, their use of secondary data analysis represents a zone-#6 approach to studying the relationship between gender and violent offending. First, they use a zone-#6 approach to identify the "gender gap" in violent offending. This is illustrated by the use of male/female as a measure of gender within the study. The use of the male/female dichotomous variable is common among criminologists, as discussed previously in this article.²⁸ The male/female dichotomous variable is based on external indicators of biological sex characteristics, which fits within the zone-#6 operational definition provided in table 1.

In addition to the use of the male/female dichotomous variable, the authors of this article also use data from the official and self-report surveys as proxy measures for the conceptual explanations described above. The use of these proxy measures was based on two key assumptions about the relationship between official arrest statistics and self-reported involvement with violent crimes. The first assumption was that similarities in trends over time between self-report and arrest statistics would support a normative position (i.e., that violent behavior increased which led to an increase in arrests). The second assumption was that a difference in trends over time between these measures would support a constructionist view (i.e., that increased arrests of adolescent girls for violent crimes was the result of policy changes and not an actual increase in violent offending).

In either case, it is not possible to directly measure the stated conceptual relationships through the use of a zone-#6 operational definition of gender, or through a zone-#6 operational definition of the relationship between gender-roles (normative position) and/or gender-stereotypes (constructionist view) and criminal offending. At best, the operational approach used in this study offers some insights into the impact of criminal justice practices/policies on the official

rates of arrest for violent adolescent girls (seeing as the findings show that arrest rates have increased while self-reported involvement has stayed relatively consistent over time). This, however, is merely the end result of the constructionist view and not the underlying “cause” that is identified (i.e., the internalization of gender-stereotypes into the collective belief structure of members of the criminal justice system).

The authors themselves identify some of these issues when considering future research. They state, “particularly needed are profiles and case studies of girls arrested for violence in order to examine the circumstances leading to girls’ violence....”²⁹ What the authors are describing here is a zone-#8 approach, in that it is aimed at understanding the relationship between criminal behavior and gender-roles (i.e., the circumstances leading to girls’ violence). This type of approach would necessitate the use of different operational approaches such as interviews, focus groups, or case studies as opposed to secondary data which offers no insight into the actual reasons for criminal offending.

While this analysis of the article by Steffensmeier and colleagues appears to be highly critical, it should be mentioned that the limitations found here are not unique to this example article nor are they surprising. Our reliance on empirical analyses and the use of quantitative methodologies within the discipline of criminology (and most certainly other social sciences) has severely hampered our ability to explore any of the interior zones. It is intended that an analysis of recent journal articles in several social science disciplines utilizing the IMP framework will not only shed light on these important and problematic issues but offer a clear and practical approach to filling in the gaps that exist between our rich conceptual knowledge and limited operational approaches. This is the focus of the dissertation for which this coding scheme was developed. We now move to a discussion of how the Integral model and IMP can be applied to the assessment of validity.

The Integral Model, IMP, and Assessing Validity

Similar to the coding scheme presented above, the discussion that follows is based on dissertation research in the field of criminology. The particular dissertation includes both the coding scheme presented above as well as a more detailed analysis of the current state of gender research within three social science disciplines: criminology, sociology, and psychology. Although the coding scheme was presented here outside the context of the proposed dissertation research, what follows is presented within that context. Therefore, references are made to the proposed dissertation throughout.

Let us begin this discussion by taking another look at the Integral framework, including the four quadrants/domains discussed previously. Figure 4 presents this model, with its corresponding four quadrant/domain approach. Notice that, in figure 4, I have introduced additional terms to describe the quadrants/domains (i.e., first-person “I,” second-person “We,” and third-person “It/Its”). Within this framework, the interior individual domain/quadrant corresponds to the first-person perspective or “I,” the interior collective domain/quadrant corresponds to the second-person perspective or “We,” and both the exterior individual and exterior collective domains/quadrants correspond to the third-person perspective or “It/Its.”³⁰

Similar to the IMP framework discussed in detail above, this framework can also be used to represent various methodological approaches or specific methods of inquiry. This approach was recently used by Integral researcher Gail Hochachka, in her study of community development from an Integral perspective.³¹

UPPER LEFT	UPPER RIGHT
Self and Consciousness	Brain and Organism
Interior-Individual	Exterior-Individual
<i>Experiences</i>	<i>Behaviors</i>
Subjective	Objective
Truthfulness	Truth
I	IT
WE	ITS
Interior-Collective	Exterior-Collective
<i>Cultures</i>	<i>Systems</i>
Intersubjective	Interobjective
Justness	Functional Fit
Culture and Worldview	Social System and Environment
LOWER LEFT	LOWER RIGHT

Figure 4. The Four Quadrants

Within this study, Hochachka defined each of these perspectives in terms of a particular methodological approach. As Hochachka describes, “the three sides [perspectives] describe an ‘Integral’ approach to development, where self-reflection, communicative action, and instrumental action are all integrated in a more holistic methodology.”³² By self-reflection, Hochachka is referring to the “psychological and cognitive processes involved in making meaning, constructing identity, structuring reasoning, and forming worldviews.”³³ Not surprisingly, methods that tap into this notion of self-reflection (i.e., first-person perspective; “I”) include phenomenology and structuralism. When describing communicative action, Hochachka uses various terms, including mutual understanding, social appropriateness, and dialogue. These particular terms correspond to the methodological families of hermeneutics and ethnomethodology. In terms of community development, Hochachka describes instrumental action as “the quantifiable, measurable, and exterior components of development.”³⁴ In a broader sense, however, instrumental action can include application or any objective/empirical approach, including techniques such as documentation, observation, and statistical analysis.³⁵ All of these approaches correspond to a third-person perspective or the application of empirical analysis and systems theory.

When we consider these three broad perspectives, we can begin to explore the various methods of inquiry associated with each. Doing so, we will then be able to construct a mixed-methods approach which incorporates at least one method of inquiry from each of the perspectives

described here. Similar to the application of IMP to the proposed coding scheme, any occasion (or phenomenon) can be looked at from these various perspectives.

Furthermore, these perspectives also offer a framework for providing information that can then be used by the reader to assess the validity of the findings of any particular study. Integral theorist Sean Esbjörn-Hargens suggests a variety of methods which could be used within this three-perspective approach, including phenomenological, structural, hermeneutical-interpretive, ethnomethodological, empirical, and systems analysis techniques.³⁶ Ultimately, it would be possible to include one method of inquiry from each of these six areas. For my purposes, however, this would be both impractical (based on time and resources) as well as perhaps taking us too far a field, considering that this was not the primary purpose of the proposed research.

Keeping in mind the goals of this portion of the proposed research (i.e., to provide readers with information so that they can make a clear determination of the validity of the findings and to provide an example of how the Integral model can be used to explore mixed-methods research), four of the six methods suggested by Esbjörn-Hargens are included. These four methods, and the techniques associated with them are discussed, in detail, below.

First-Person Perspectives (Illuminating the “I”)

The first two methods used to provide the reader with information so that he or she can assess the validity of the findings, address the first-person perspective, as described above. These include phenomenological and structural methods of inquiry, respectively. Both of these methods are aimed at reflexivity, which is a widely accepted approach to assessing validity in qualitative research.³⁷

First, I as the researcher will employ introspective journaling or what is also known as autobiographical-ethnography.³⁸ Within this introspective journal, the choices that were made at each stage of the research process will be made explicit. The purpose of this introspective journaling will be to provide the reader with a first-person assessment of the interrelationships among the researcher, my own gender-development (as viewed from my own first-person perspective), and the disciplinary culture in which I am embedded. Accounts of the various critical stages of the research process will be explored, with specific emphasis on the ways in which I, the researcher, view my own experiences within the context of the proposed study.

Second, the proposed study will include a structural analysis of my own gender-identity (or the interior individual domain of gender as related to the researcher). This will be accomplished by having me complete various psychological tests which have been created to tap into the structure of an individual’s own gender-identity (e.g., the Bem Sex Role Inventory or the Minnesota Multiphasic Personality Inventory). In addition to taking these tests, I will provide an analysis of how the underlying structure of my own gender-identity may have impacted the research process, including the interpretation of findings.

Both of these methods of inquiry are aimed at elucidating the impact of the researcher on the research process, from a first-person perspective. As John Creswell suggests, it is important to “clarify the bias the researcher brings to the study” in order to “transport readers to the setting

and give the discussion an element of shared experiences.”³⁹ This is the aim of the two methods described here.

Second-Person Perspectives (Illuminating the “We”)

The second technique which will be used to provide information for readers so that they can assess the validity of the findings will be the use of “external auditors.”⁴⁰ Creswell suggests that researchers “use an external auditor to review the entire project...this auditor [should be] new to the researcher and project and can provide an assessment of the project throughout the process of research or at the conclusion of the study.”⁴¹ For the purposes of the proposed study, two external auditors will be used. The first external auditor will be someone who is considered an expert in the field of Gender Studies but has very limited, or no experience with the Integral model or IMP. The second external auditor will be someone who is considered an expert in Integral Theory and IMP but who has not yet explored its application within the context of Gender Studies.

Each of these external auditors will provide an assessment of the study from their own perspectives. The auditors will be asked to analyze the proposed study in terms of their own experiences with, and understanding of, gender and the application of the Integral model and IMP to the study of gender. In both cases, I as the researcher will provide a brief response to the auditors’ reflections. This, it is hoped, will provide the reader with some understanding of the cultural (i.e., interior collective) assessment of the study. Particular attention will be paid to how the study resonates with each auditor in terms of their own area of expertise, as well as the mutual understanding which should result from the communication between myself as the researcher and the auditors.

Third-Person Perspectives (Illuminating the “It/Its”)

The last set of techniques deal with the third-person perspective. For the purposes of the proposed study, the third-person perspective will be considered in terms of the actual data being collected. Both of the techniques described below are aimed at providing readers with information that will help them objectively assess the application of the coding scheme. The first technique is going to be used to ensure transparency, while the second technique will be used to ensure consistency. In both cases, it is hoped that these techniques will provide readers with the information necessary to replicate the proposed study.

First, the use of descriptive data during the data collection phase of the proposed study will allow readers to compare and contrast the researcher’s interpretation of the data with their own.⁴² In the context of the proposed study, the actual language used by the authors of the articles included in the content analysis will be used. The original conceptual and operational definitions, as written by the author(s) of each article, will form the basis of analysis for the proposed study. This will allow readers to identify potential inconsistencies between the researcher’s interpretation and other possible interpretations.

Second, the researcher will employ a multiple coder strategy to ensure that there is consistency in coding.⁴³ Two peer reviewers will be given a randomly selected set of articles from the sample of articles included in the analysis. Each reviewer will be asked to identify the conceptual and operational definitions of gender within the selected articles. Also, each reviewer will be asked to

place those conceptual and operational definitions within the coding scheme described earlier in this chapter. The researcher will then assess the consistency in coding by comparing his own coding of the selected articles with that of the two peer reviewers.

Again, this multi-methods approach to validity assessment will serve two important functions. First, it will provide the reader with an opportunity to assess the impact that the researcher may have had on the research process (i.e., threats to validity). Second, it will provide a model for other researchers who are interested in developing innovative strategies for assessing validity using the Integral model and IMP. Not only do the Integral model and IMP provide a meta-framework for studying complex constructs such as gender, but they also provide a useful framework for researchers who appreciate the value of reflexivity within the research process.

Conclusion

This article is intended to be used as an example of how the Integral model and IMP can be applied within scientific research. The coding scheme that was developed to assess our current approaches to studying gender is based in the application of the IMP framework and its corresponding eight-zone/eight-methodology approach to understanding any occasion. In addition, the Integral model was used to develop a multi-methodological approach to assessing validity. The argument that stands at the foundation of the research described here is that we can not fully understand complex scientific constructs such as gender without considering these multiple perspectives as well as the position of the researcher(s) her/himself within the context of these perspectives. The application of the Integral model to the assessment of validity offers one outlet for understanding the position of the researcher(s) her or himself. This multi-methodological approach actually turns this argument in on itself by providing the framework necessary to assess the four domains of gender as they are experienced by the researcher(s) during the research process. It would be both inappropriate and disingenuous to make an argument for the inclusion of these multiple perspectives in scientific research without exposing oneself to a similar process.

It is my hope that others will begin to develop and utilize similar coding schemes based on the Integral model and IMP and begin to take a serious look at additional applications of the Integral model within scientific research. These approaches offer a clear path to a more genuine and complete picture of complex scientific constructs one that honors the value of each of these perspectives but does not elevate any above the others. Through the application of the coding scheme presented here, we can begin to take major steps towards more integrative as well as appropriate conceptual and operational frameworks for the study of complex human constructs, and begin to shape a new future for scientific inquiry full of both substance and meaning.

NOTES

¹ For purposes of clarity and uniformity, the term “gender” will be used as a label for the overall construct, while “gender-roles” will be used for social explanations, “gender-identity” for individual psychological explanations, “gender-stereotypes” for cultural explanations, and “sex” for biological explanations.

- ² This situation is likely the result of several factors, working sometimes alone and sometimes in conjunction. It is partly the result of levels of thinking, of disciplinary myopia, and also of the over-reliance on oppositional theory development as the preferred strategy in the social and behavioral sciences.
- ³ Cohen & Harvey, "Misconceptions of gender: Sex, masculinity, and the measurement of crime," 2006
- ⁴ Cohen & Harvey, "Misconceptions of gender: Sex, masculinity, and the measurement of crime," 2006
- ⁵ See Krienert, "Masculinity and crime: A quantitative exploration of Messerschmidt's hypothesis," 2003 and Williams, *Imaging criminology: An alternative paradigm*, 1999.
- ⁶ Wilber, *A brief history of everything*, 2000a, *Integral psychology: Consciousness, spirit, psychology, therapy*, 2000b, *A theory of everything: An integral vision for business, politics, science, and spirituality*, 2001, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006
- ⁷ Meade & Wiesner-Hanks, "Introduction," 2004, p. 3
- ⁸ D'Andrade, "Sex differences and cultural institutions," 1975, p. 175
- ⁹ D'Andrade, "Sex differences and cultural institutions," 1975
- ¹⁰ Bem, "Genital knowledge and gender constancy in preschool children," 1989
- ¹¹ Fagot & Leinbach, "Gender-role development in young children," 1994
- ¹² See Bussey & Bandura, "Self-regulatory mechanisms governing gender development," 1992 and their discussion of social cognitive theory
- ¹³ Mischel, "A social-learning view of sex differences in behavior," 1975
- ¹⁴ Dornbusch, "Afterword," 1975
- ¹⁵ Bonvillain, *Women and men: Cultural constructions of gender*, 1998, pp. 162-163
- ¹⁶ Lipsett-Rivera, "Latin America and the Caribbean," 2004
- ¹⁷ Kealey, "North America from north of the 49th parallel," 2004
- ¹⁸ Chaudhuri, "Clash of cultures: Gender and colonialism in South and Southeast Asia," 2004 and Stearns, *Gender in world history*, 2000
- ¹⁹ Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006
- ²⁰ Cohen & Harvey, "Misconceptions of gender: Sex, masculinity, and the measurement of crime," 2006
- ²¹ Cohen & Harvey, "Misconceptions of gender: Sex, masculinity, and the measurement of crime," 2006
- ²² Steffensmeier, Schwartz, Zhong & Ackerman, "An assessment of recent trends in girls' violence using diverse longitudinal sources: Is the gender gap closing?" 2005
- ²³ Steffensmeier, Schwartz, Zhong & Ackerman, "An assessment of recent trends in girls' violence using diverse longitudinal sources: Is the gender gap closing?" 2005, p. 359
- ²⁴ Steffensmeier, Schwartz, Zhong & Ackerman, "An assessment of recent trends in girls' violence using diverse longitudinal sources: Is the gender gap closing?" 2005
- ²⁵ Steffensmeier, Schwartz, Zhong & Ackerman, "An assessment of recent trends in girls' violence using diverse longitudinal sources: Is the gender gap closing?" 2005, p. 362, italics added
- ²⁶ Steffensmeier, Schwartz, Zhong & Ackerman, "An assessment of recent trends in girls' violence using diverse longitudinal sources: Is the gender gap closing?" 2005, p. 362, italics added
- ²⁷ Steffensmeier, Schwartz, Zhong & Ackerman, "An assessment of recent trends in girls' violence using diverse longitudinal sources: Is the gender gap closing?" 2005
- ²⁸ See Cohen & Harvey, "Misconceptions of gender: Sex, masculinity, and the measurement of crime," 2006.
- ²⁹ Steffensmeier, Schwartz, Zhong & Ackerman, "An assessment of recent trends in girls' violence using diverse longitudinal sources: Is the gender gap closing?" 2005, p. 392
- ³⁰ See Esbjörn-Hargens, "Integral education by design: How integral theory informs teaching, learning, and curriculum in a graduate program," 2006 and Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006.
- ³¹ Hochachka, *Developing sustainability, developing the self: An integral approach to international and community development*, 2005. Also see Hochachka, "Case studies in integral approaches in international development: An integral research project," this issue.
- ³² Hochachka, *Developing sustainability, developing the self: An integral approach to international and community development*, 2005, p. 114
- ³³ Hochachka, *Developing sustainability, developing the self: An integral approach to international and community development*, 2005, p. 114
- ³⁴ Hochachka, *Developing sustainability, developing the self: An integral approach to international and community development*, 2005, p. 114
- ³⁵ Esbjörn-Hargens, "Integral education by design: How integral theory informs teaching, learning, and curriculum in a graduate program," 2006

³⁶ Esbjörn-Hargens, "Integral education by design: How integral theory informs teaching, learning, and curriculum in a graduate program," 2006

³⁷ See Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches*, 2003 and Maxwell, *Qualitative research design: An interactive approach*, 2005.

³⁸ Esbjörn-Hargens, "Integral education by design: How integral theory informs teaching, learning, and curriculum in a graduate program," 2006 and Patton, *Qualitative research & evaluation methods*, 2002

³⁹ Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches*, 2003, p. 196

⁴⁰ Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches*, 2003, p. 196

⁴¹ Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches*, 2003, pp. 196-197

⁴² Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches*, 2003 and Maxwell, *Qualitative research design: An interactive approach*, 2005

⁴³ Maxfield & Babbie, *Research methods for criminal justice and Criminology*, 2001

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