Chapter 11
Paradox of Stubbornness
– The Epistemology of Stereotypes Regarding Women

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1. The Paradox of Stubbornness

"Women are too empathetic to be engineers"[2]
"[W]omen aren't up to the job of running an airline"[3]
"Women are less spatial and logical thinkers than men"[4]
"[T]he complicated whirlwind of politics is not the arena for the female role"[5]

The above statements are but a few of the numerous stereotypes regarding women. They are generalized traits attributed as intrinsic to the group of women as a whole. Indeed, many women fulfill at least some stereotypic claims ascribed to their group. Yet, no woman fulfills them all. The discrepancy between individual women and the stereotypes ascribed to the group has become progressively greater and more explicit over the course

[2] Vicki May, "Are Women Too Empathetic to Be Engineers?", *The Huffington Post*, 24 June 2014 updated 24 August 2014, https://www.huffpost.com/entry/are-women-too-empathetic-_b_5522153
[3] David Koenig, "In airline-business rarity, Air France picks a woman CEO", *The Associated Press*, 13 December 2018, https://apnews.com/article/b56ea6cb019c44d6 b2bda75b9eaa35ec
[4] Michelle G. '18, "Picture Yourself as a Stereotypical Male", *MIT Admissions*, 3 September 2015, https://mitadmissions.org/blogs/entry/picture-yourself-as-a-stereotypical-male/
[5] Tamar Beeri, "Responding to rabbi's sexist remarks, Shaked says women can do anything", *The Jerusalem Post*, 6 July 2019, https://www.jpost.com/israel-news/ayelet-shaked-women-can-be-heads-of-state-594699

of history in alignment with changes in women's social and political situations. For, despite the developments in the traits women have opportunity to express, stereotypes regarding women remain the same age-old allegations. Furthermore, constituting 50% of society, women are encountered on a regular basis. Thus, evidence which refutes stereotypical knowledge[6] is rendered inevitable – deeming stereotypes regarding women a valuable edge-case for the epistemic inquiry of stereotypes in general. For, despite the contrary evidence, it appears that society and individuals within it continue to hold these stereotypes as true. This conflict between evidence and stereotypes constitutes an epistemic paradox.

The epistemic paradox following from the conflict between evidence and stereotypes is the retention of the stereotypical knowledge despite contrary evidence. Ordinarily, when a person encounters evidence conflicting with previously attained knowledge, that knowledge is updated in light of the evidence so that one's knowledge will be true. However, it seems that stereotypes negate such revision. Even numerous encounters with contrary evidence do not cause one to abandon the stereotype nor to replace it with knowledge better correlated with the empirical evidence arising from experience.

Such a lack of revision of stereotypical knowledge in light of new evidence causes two epistemic sub-conflicts. One is the conflict between knowledge and the empirical evidence with which it comes in contact. Second is the conflict that emerges within the body of knowledge itself. For, experience generates the creation of a new knowledge in one's body of knowledge. In the case of evidence contrary to stereotypes, the new knowledge formed is one contrary to the previously existing stereotypical knowledge. Hence, the abstention of stereotypes from revision in light of new contrary evidence is a cause for conflict between

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[6] Knowledge is referred to in this paper as that which is believed to be a justifiable true belief. Therefore, even if a stereotype may be false empirically, it constitutes knowledge in as much as it is believed to be justifiably true.

knowledges[7] within the aggregate body of knowledge itself. The latter is thus rendered incoherent, consisting of two contrary knowledges both held to be true. These two conflicts – between the stereotype and the evidence, and between the stereotype and other knowledges – give rise to the epistemic paradox of the retention of the stereotype despite contrary evidence. This paradox will be termed here the *paradox of stubbornness.*

The epistemic distortion entailed in the paradox of stubbornness, though, is revealed to be more severe than only stereotypes' lack of revision. The latter could be the sole epistemic difficulty if initial experience of women would produce evidence in line with such stereotypical deductions, to be challenged only by later contrary evidence. Yet, encounters with women provide diverse evidence from the outset, not the generalized and simplified version entailed in stereotypes. It is found, then, that stereotypical knowledge does not stem from empirical evidence, as previously assumed. For, if knowledges regarding women as a group were founded upon experience, more diverse and complex knowledges would have formed – in correlation with the empirical evidence. Therefore, it seems that people's personal experiences are not the epistemic source of stereotypical knowledge.

To summarize this preliminary analysis, three epistemic questions arise regarding women stereotypes. One, what are the epistemic mechanisms that enable stubbornness of stereotypical knowledge in light of contrary evidence? Two, what are the epistemic mechanisms that enable conflict between the stereotype and the evidence, and between the stereotype and other knowledges, respectively? Three, what is the epistemic source of stereotypical knowledge, if it is not empirical evidence? This paper will explicate the epistemic paradox of stubbornness. In so doing, it aims to answer the above questions, showing the epistemic mechanisms and characteristics that enable such stub-

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[7] I use the term "knowledges" as the plural for "knowledge" so as to retain the use of the latter for individual units of knowledge, seeing as such distinction proves central in this paper.

bornness of stereotypes regarding women in light of contrary evidence. Specifically, it will highlight the centrality of epistemic heritage passed down to individuals throughout history by their societies, shaped both collectively and individually. For this purpose, it will concentrate on Quine's theory of knowledge.

Quine's Theory of Knowledge

As an empiricist, Quine deems experience the solitary source of knowledge. The novelty in his account, though, is that despite his foundation in empiricism and reliance on evidence for the constitution of knowledge, Quine transfers the judgment of knowledges' truth to a new realm. Traditional empiricists examine the adequacy of knowledges' correlation with empirical evidence to determine their truth value. Quine, though, turns his gaze from the connection between knowledge and evidence to that between the different knowledges themselves. He demands coherence among one's various knowledges, so that there is no conflict between them. To do so, Quine broadens his scope of validation by converting the unit of epistemic significance. Previously, the standard for validation of truth was individual knowledges, judged independently according to the correlation of each knowledge to empirical evidence external to the body of knowledge. Quine replaces this standard with the entirety of the body of knowledge; a corporate whole to be verified in light of its internal coherence.

Quine's endorsement of coherence as validation ensues from his refutation of the analytic-synthetic distinction,[8] negating the possibility of verifying knowledges either as true by virtue of meaning alone or as entirely dependent on personal experience. He contends that every form of knowledge, even the most rudimentary observation statements, inherently entails previous knowledge.[9] It is therefore impossible to judge the truth of

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[8] Due to the scope of this paper, I will not delve here into this analysis, see Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism". *The Philosophical Review* 60(1), (1951).

[9] Willard Van Orman Quine, "Epistemology Naturalized", Reprinted from Willard Van

knowledges solely in accordance with their empirical adequacy. For, people do not have direct access to viewing knowledge in its rudimentary foundation of empirical evidence. Instead, the criterion of coherency shifts the focal point of epistemic inquiry to the intra-knowledge relationships themselves, examining their interactions and the overarching coherence of the body of knowledge as a holistic unit.

Quine's theory is thus utile in my analysis of stereotypes regarding women. For, what renders stereotypes epistemically puzzling is the very relationship between stereotypical knowledge regarding women as a group and one's experience-founded knowledges of particular women conflicting with the said stereotype. Such prevalent incoherence in people's corporate knowledge begs an inquiry into the mechanisms enabling it.

Additionally, according to Quine's theory of knowledge, the connection between empirical evidence and knowledge is such that they are considered mutually relevant yet not directly correlated. The loose ties between knowledges and empirical evidence makes way for the influence of other mechanisms on epistemic processes. Such mechanisms, for which Quine creates place in his account, may provide for the epistemic incongruences of stubbornness and the conflict found between stereotypical knowledges and empirical evidence.

Furthermore, not all knowledges are equally close to empirical evidence. Quine describes a typology of the body of knowledge in which the knowledges are scaled according to their proximity or distance from experience. The further away knowledge is from experience, the less exposed it is to revision in light of contrary evidence. Yet, these distances and the organization of the knowledges within the corporate body which dictate the knowledges' sensitivity to experience, are not inherent to the knowledges themselves. There is no logical necessity for certain knowledges to be of closer proximity to empirical evidence and

Orman Quine, *Ontological Relativity and Other Essays* (New York: Columbia University Press, 1969) in Kornblith, Hilary (Ed.), *Naturalizing Epistemology* (Cambridge: MIT Press, 1994), pp. 27–28.

others farther away. Rather, Quine describes this typology of knowledges within the body of knowledge as a "conceptual scheme".[10]

A conceptual scheme, according to Quine, is an arrangement into which are fitted "disordered fragments of raw experience",[11] empirical evidence prior to its coming into relation with the social element of previous knowledge entailed in the conceptual scheme. This arrangement of knowledges is that which determines one's "ontology",[12] the perception through which one interprets experience.[13] Therefore, a conceptual scheme is the manner in which empirical evidence is formed into knowledges and positioned relative one to another. This typology is a tool, a framework, which prescribes the perspective through which people view and interpret sensory input.[14] The conceptual scheme, thus, dictates the connections and interactions between knowledges.

Quine describes the conceptual scheme as a "fabric".[15] This fabric is composed of numerous knowledges, the peripheral of which touch upon experience. Though no specific knowledge is correlated to any specific experience, the peripheral knowledges are those more prone to revision in light of new evidence for they are the knowledges of greatest proximity to experience.[16] Quine depicts a causal link between experience and a knowledge, which makes the knowledge susceptible to empirical evidence. Thus, the experience of contrary evidence operates the causal link so that the relevant knowledge can be revised. Quine, therefore, describes the mechanism of revision as a readjustment

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[10] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", pp. 41, 43; Willard Van Orman Quine, "On What There Is", *From a Logical Point of View* (New York: Harper and Row, 1963), p. 11.

[11] Quine, "On What There Is", p. 16.

[12] Quine, "On What There Is", pp. 16–17.

[13] Quine, "On What There Is", p. 10.

[14] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", pp. 41, 43.

[15] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 39.

[16] Quine, "Epistemology Naturalized", p. 26.

of the fabric of knowledge.[17] When new evidence arises, the knowledges in the fabric are rearranged to incorporate the evidence, the newly formed knowledge, into the body of knowledge. The objective of this readjustment is to maintain maximum coherence within the fabric, thus validating the truth of the corporate body. It first entails the revision of a knowledge in the periphery of the fabric. The process of revision then spreads in a causal chain to certain additional knowledges connected to that knowledge originally revised to prevent conflict and thus incoherence among knowledges.[18]

Quine furthers his explication of the revision of the corporate body of knowledge in light of new evidence. He maintains that not only the knowledges themselves are subject to revision, but so are the connections between them. These connections are the epistemic rules of the conceptual scheme that dictate the relationships between the knowledges. The connections may be those ordained by the rules of logic or affiliations between knowledges deemed associable in the perception implemented by the conceptual scheme.[19] Therefore, the very organization of the knowledges within the corporate body may be altered in light of contrary evidence, the connections between knowledges shifted or morphed into different forms of connections.

The various forms of connections between knowledges produce alternative conceptual schemes. As the framework which prescribes the relationships between the knowledges and the interactions between them, conceptual schemes are undetermined. The fabric which organizes knowledge is not confined in its optional typologies of knowledges but for its internal necessitation of coherence. Not only in processes of revision, but also from the onset conceptual schemes are alternatives chosen between by social groups.[20]

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[17] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 39.
[18] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", pp. 39–41.
[19] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 39.
[20] Quine, "On What There Is", p. 1, 17; Quine, "Epistemology Naturalized", p. 28.

Quine contends that multiple conceptual schemes may be equally coherent in their formation and arrangement of the same knowledges. Consequently, criteria are needed for choosing between different yet equally coherent conceptual schemes. Such criteria, though, are offered by Quine in point form alone. He notes that the scheme to be implemented is the one most "simple", "conservative", "convenient", "pragmatic", and "elegant".[21] Quine himself admits that these criteria are ambiguous and capable of entailing multiple standards,[22] with no "realistic standard of correspondence to reality".[23] Yet, the details entailed in these qualities of conceptual schemes and processes of revision, and the justification as to the reason they are ascribed such status as epistemic criteria, are not provided by Quine. Neither does he found his claims that these criteria are inherent human tendencies regarding conceptual schemes.[24] In this manner, Quine relinquishes the criteria of conceptual schemes, and thus the question of choice between them remains unclarified. These unelucidated criteria, though constituting a theoretical obstacle in Quine's account, expedite the epistemic analysis of stereotypes regarding women. It is rather through this patchwork in Quine's theory of knowledge that a window may be opened to explicate the paradox of stubbornness.

Quine's Theory of Knowledge and "Recalcitrant" Stereotypes

Stereotypes, being the stubborn form of knowledge they are, may be explained as such due to their location far from the periphery of Quine's fabric of knowledge. For, as situated distant

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[21] Respectively: Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", pp. 42–43; Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", pp. 42–43 and Quine, "On What There Is", p. 16; Quine, "On What There Is", p. 16; Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 43; Willard Van Orman Quine, "Identity, Ostension, and Hypostasis", *From a Logical Point of View* (New York: Harper and Row, 1963), p. 79; Quine, "Identity, Ostension, and Hypostasis", p. 79.

[22] Quine, "On What There Is", p. 17.

[23] Quine, "Identity, Ostension, and Hypostasis", p. 79.

[24] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 44.

from the periphery, stereotypes may be hard to reach by the causal chain of revision. The dictation of the location of stereotypes – as that of all knowledges – is decreed by the conceptual scheme in employment. It may thus seem that stereotypical knowledges regarding social groups are located within the far interior of conceptual schemes. According to this explanation, the stubbornness of stereotypes does not differ from those of other knowledges which share the same distance from the periphery of the fabric of knowledge.

Yet, the intriguing quality of stereotypes regarding women is not only that they are stubborn knowledges in conceptual schemes, but moreover that this is the case in dissimilar conceptual schemes pertaining to different societies. Therefore, perhaps there is an additional mechanism at work which perpetuates stubbornness among stereotypes. A mechanism that ascribes – or reveals – additional characteristics to stereotypical knowledges, differentiating them from simply 'distant knowledges' and accounting for their specific stubbornness. The question to be posed in this regard is whether the distance of stereotypes from the knowledge fabric's periphery is the sole cause of the great difficulty in revising them despite contrary evidence. Or, whether additional mechanisms are at work. The implications of the former may be that stereotypes are not, in actuality, a stubborn form of knowledge. Rather, if distance is the only cause, perhaps all that is needed to change stereotypes is sufficiently strong and sufficiently numerous contrary evidence. Alternatively, a change in conceptual scheme may bring these stereotypical knowledges closer to the periphery for greater ease of revision. If, on the other hand, an additional internal mechanism of the conceptual scheme is at work, it may provide insight about what form of knowledge stereotypes of women truly are and what deems this particular form of knowledge so stubborn and epistemically paradoxical.

In order to explicate the paradox of stubbornness, the following chapter will investigate the mechanisms that enforce the implementation of a certain conceptual scheme over another, as well as the mechanisms of the inner workings of the conceptual

scheme. For the former, a significant focus will be the criteria which Quine lists for the championing of one conceptual scheme over another but upon which he does not expound nor offer justification. As to the inner workings of the conceptual scheme, to be explored is what, besides distance, constitutes the specific mechanism within the conceptual schemes that accounts for the stubbornness of stereotypes of women.

This examination of conceptual schemes and the typology of stereotypical knowledge aims to illuminate the paradox of stubbornness. Required here is to answer the two additional epistemic questions raised earlier in this paper regarding: one, the epistemic mechanisms which enable conflicts between the stereotype and contrary evidence and between the stereotype and other knowledges; and two, the epistemic source of stereotypical knowledge.

2. Quine's Conceptual Schemes and Other Myths

Conceptual schemes, Quine contends, are human-made.[25] There exists no empirical necessity for the construction of the fabric of knowledges in any particular arrangement. Rather, conceptual schemes are a tool created by people to organize and simplify the large quantities of sensory data input to which we are exposed.[26] This pragmatic element is inseparable from knowledge itself due to Quine's refutation of the analytic-synthetic distinction. The conceptual scheme is a pragmatic tool among various alternative schemes, chosen for its convenience in working with knowledge.[27] The pragmatism that Quine thus espouses enables him to account for the indeterminism of knowledge in relation to empirical evidence.

Conceptual schemes are both social and individual. They are constructed by and pertain to a community,[28] alongside entailing

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[25] Quine, "Identity, Ostension, and Hypostasis", pp. 77–79; Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 41.

[26] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 41.

[27] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 43.

[28] Quine, "On What There Is", pp. 1, 17; Quine, "Epistemology Naturalized", p. 27.

internal individual variations.[29] There are diverse manners in which people can perceive the world – alternative formulations of the fabric of knowledge, the placement of knowledges within the fabric, and the construction of the logical connectors between them. Yet, these separate and conflicting individual conceptual schemes must be accommodated together into a broader, overarching communal conceptual scheme.[30] For, the body of knowledge that each person holds is part of the collective knowledge of the community at large.

Given such a wide array of equally coherent conceptual schemes, what are the criteria surrounding which scheme is implemented by respective communities? Quine describes the guiding principle as the convenience entailed by people's "pragmatic inclination" toward conservatism and simplicity.[31] Such pragmatism overtakes any standard of correspondence with reality,[32] consistent with Quine's appraisal of coherence within a body of knowledge rather than the adequacy of individual knowledges to particular empirical evidence. For, as knowledge is irreducible to experience, so too is the framework of knowledge. In lieu of correspondence with reality, the objective of conceptual schemes is the simplicity of their laws[33] by which they sort experiences and the ongoing input of empirical evidence.[34] Furthermore, that people prefer to minimize the changes made in the fabric in the process. The pragmatic inclination toward conservatism aims to adjust the existing fabric, the conceptual scheme, as slightly as possible in light of new evidence, including that which is contrary to previous knowledge.[35]

Minor adjustments to the knowledge fabric, therefore, are maintained to those peripheral knowledges deemed by the conceptual scheme most relevant to the particular experience. Yet,

[29] Quine, "On What There Is", p. 10.
[30] Quine, "On What There Is", pp. 16–17.
[31] Quine, "On What There Is" pp. 16–17.
[32] Quine, "Identity, Ostension, and Hypostasis", p. 79.
[33] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 42.
[34] Quine, "On What There Is", p. 16.
[35] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 42.

even conservatism must allow for a 'ripple effect' of readjustments to ensue. No particular knowledge is determined to partake in this causal chain of revision, for none is reducible to any particular empirical evidence. Rather, though any and all variations of readjustments are possible within the conceptual scheme, it is the propensity to simplicity and conservatism that dictates which path of knowledges and connectors the revision will take.[36] This propensity maintains the changes wrought upon the fabric of knowledge at a pragmatic minimum.

As aforementioned, it may be contended that stereotypes are located in the interior of the field of knowledge, distant from the periphery. In such a manner, they would necessitate a great tidal wave of revision for the causal chain to reach and revise them. However, if the paradox of stubbornness is derived solely from the location of stereotypical knowledges within the conceptual scheme, then in accordance with Quine, numerous alternative conceptual schemes could just as well have placed the stereotypes peripherally. Alternatively, the vast extent of contrary evidence would seem sufficient to reach the distant interior of the field of knowledge where stereotypes are situated. Moreover, so much contrary evidence relevant to stereotypical knowledge might appear to indicate stereotypes' peripheral, rather than internal, location. For, Quine's own definition of peripheral knowledges are those deemed most relevant to certain experiences.[37]

That stereotypes conflict with experience is because they do not originate from it; people's personal experiences are not the epistemic source of stereotypical knowledge. Furthermore, stereotypes are generalizations and simplifications of social groups as a whole rather than knowledge respective of a particular experience. And, as Quine contends, it is the conceptual scheme and not raw empirical evidence that associates various experiences into a generalized whole, a convenient simplicity.[38]

[36] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 40.
[37] Quine, "Epistemology Naturalized", p. 27.
[38] Quine, "On What There Is", p. 17; Quine, "Identity, Ostension, and Hypostasis", p. 70.

The irreducibility of stereotypes to empirical evidence gives the impression of greater severity than 'regular' knowledge; both due to stereotypes' conflict-causing stubbornness, as well as to the question of their origination. This leads to the understanding that stereotypes did not receive their paradoxical characteristics due to placement, rather their placement might be caused by their very stubbornness. Stereotypes themselves are perhaps not a knowledge but rather a mechanism of the inner workings of the conceptual scheme.

Posits

The mechanism within the conceptual scheme that may help to explicate the paradox of stubbornness is what Quine terms "posits". Posits are human-made tools incorporated into conceptual schemes as "convenient intermediaries".[39] They are implemented for the organization of empirical evidence derived from experience. Thus, posits are condensed, locally applied, 'mini' conceptual schemes operating within the broader framework of the conceptual scheme itself. As human-made, posits do not originate from, nor are they reducible to experience.[40] Rather, they are "myths"[41] that are used within the conceptual scheme as convenient tools for conceptually managing the empirical evidence arising from a situation.

These fictitious entities may differ in degree as to their efficiency in ordering extents of empirical evidence. This pragmatic value of posits as a conceptual, epistemically irreducible mechanism, is exemplified by Quine by the variance in degree, though not in kind, between the posit of the existence of physical objects and the existence of the gods of antiquity.[42] Quine contends that empirically there is no knowledge regarding any such complete object that retains identity over time and space, nor in being

[39] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 41.
[40] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", pp. 41–42.
[41] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 41.
[42] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 41; Quine, "On What There Is", p. 19.

distinguishable in terms of borders separating it from other objects. Rather, human perception of the existence of such physical objects is but the pragmatic typology of the vast empirical evidence into categorized beings, for our more convenient use of the knowledge and conduct in the world. Quine thus categorizes physical objects as the same form of epistemic mechanism as ancient gods. Both are empirically-irreducible myths which are implemented pragmatically by conceptual schemes to organize and process experience.[43]

Not only do posits serve as devices for the simplification of the input of empirical evidence, they simplify epistemic operations too. They do so by simplifying the movement between knowledges, creating jumps that, for the sake of convenience, skip over the logical connectors of the conceptual scheme itself.[44] While logical connectors detail every single relationship between the empirical knowledges, posits exist as a mechanism within the conceptual scheme which is manually "imported"[45] and executed upon knowledge to conveniently sort between the mass of empirical evidence – categorize, organize, and thus utilize the knowledge.

Posits are integral to the understanding and analysis of experience and empirical evidence. Additionally, they appear to provide an adequate candidate to explain the stubborn form of knowledge that stereotypes comprise. In viewing stereotypes as posits, they are understood as internal mechanisms of the conceptual scheme that simplify empirical evidence through generalization and facilitate the conceptual movement between knowledges in manners that pass over the fabric's logical connectors. Indeed, stereotypical knowledge about women causes conceptual leaps between the various knowledges of women in manners not consistent with the logical connectors between them. As posits, stereotypes are undetermined and irreducible

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[43] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 41.
[44] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", pp. 41–42.
[45] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", pp. 41–42.

to experience. Their relationship to experience is how they act upon the evidence and not in originating from it.

This irreducibility has further significance for stereotypes regarding women and the paradox of stubbornness. Lacking empiric origin renders stereotypes, like all posits, distinct from other forms of knowledge. Whereas other knowledges stem from empirical evidence, differing only in degree of proximity and thus propensity to revision, stereotypes are not situated on that scale. Posits are fictitious myths[46] that are not positioned in line with the empirical knowledges in the conceptual scheme. Stereotypes, as posits, are not woven into the fabric of knowledge as empirical knowledges are. Instead, stereotypes are a mechanism of the very organization of the body of knowledge.

Stereotypes, as posits, are not connected with the other knowledges of the fabric but rather are epistemic mechanisms that act upon it. This explains their absence from causal chains of revision and their invisibility in verifications of coherence. The causal chain of revision operates along the connecting relations within the fabric, revising those knowledges and logical connectors associated with the initially revised knowledge. The verification of coherence, as well, runs along those same pathways to validate the coherence of the fabric. Stereotypes, hence, go unnoticed in both epistemic processes. In this manner, stereotypes regarding women remain stubbornly unrevised in light of contrary evidence, nor does this stubbornness raise a flag of incoherence despite the stereotype's conflict with the newly formed knowledge.

Heritage

Having explicated the paradox of stubbornness and the difficulty of epistemic conflict, the question remains as to the epistemic source of stereotypes regarding women. It may be asked, then, what is the epistemic source of posits in general? Quine

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[46] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", pp. 44–45.

dubs this irreducible, simplifying mechanism of posits as "cultural",[47] explicitly revealing their collective, social trait. Similar to the conceptual schemes themselves, of which posits are in a sense a 'condensed' form, the latter too are collective entities formed and held socially. If so, what are the cultural roots of posits and of conceptual schemes themselves?

Quine briefly mentions the source of conceptual schemes and of their entailed posits – "heritage".[48] According to Quine, people are bestowed with an eclectic framework of knowledge with which they pragmatically work to merge between the inherited conceptual scheme and the personally experienced empirical evidence.[49] The socially shared body of knowledge is passed down generation to generation, *a priori* framing individuals' experiences and formulation of knowledge throughout life. This epistemic heritage, though not expounded upon by Quine, is helpful in examining stereotypes regarding women.

The conceptual scheme rests upon aggregated shared experiences and empirical knowledge held collectively in a social body of knowledge.[50] The shared knowledges structure the conceptual scheme through which empirical knowledge is perceived by individuals. Thus, every individual receives previous knowledge shared by their community as a heritage that entails within it the communal conceptual scheme and posits.

Among the posits held collectively and inherited by individuals are stereotypes regarding women. These stereotypes do not stem from personal experience, for one's experience would in most cases found a more complex and non-stereotypical knowledge about women. Rather, such stereotypical knowledge is entrenched as a posit in one's heritage. An individual knows

[47] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 41.
[48] Quine, "Identity, Ostension, and Hypostasis", p. 77; Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 43.
[49] Quine, "Identity, Ostension, and Hypostasis", p. 77; Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 43.
[50] It is the community's use of language that deems as true those knowledges not susceptible to differences of experience within the speech community – a foundation of Quine's theory which is beyond the scope of this article and therefore not incorporated in my writing here. See Quine, "Epistemology Naturalized", p. 28.

the stereotype before meeting women to the extent necessitated for the formulation of such a generalized knowledge. People empirically experience women once preconditioned with the stereotype inherited as a posit of the respective society's historical conceptual scheme.

To summarize, posits are integral to the shared body of knowledge of the community; being a socially shared, historic, intersubjective reference aimed at simplifying knowledge at the expense of reality.[51] As posits, stereotypes regarding women partake in this collectivity and irreducibility to personal experience. Quine's theory of knowledge thus provides an epistemic source for stereotypes in the form of social heritage.

3. The Recalcitrance of Stereotypes

Quine's theory of knowledge, with its holistic empirical approach endorsing conceptual schemes, provided fertile ground for this paper's analysis. The conceptual scheme and its internal mechanism of posits accounted for the stubbornness of stereotypical knowledge. This was done by revealing stereotypes as fictitious human-made posits implemented as a mechanism of simplification within conceptual schemes. As posits, stereotypes are not woven into the fabric of knowledge nor connected to empirical knowledge by logical connectors. Thereby, they are not subject to any causal chain of revision, nor are they scrutinized for validation of coherence within the body of knowledge. Thus, the paradox of stubbornness and its entailed epistemic conflicts have been explicated.

Lastly, the epistemic source of stereotypes has been provided for in Quine's conceptualisation of epistemic heritage. Quine claims that conceptual schemes and their entailed posits are held collectively as shared, social knowledge which is inherited by individuals. Thus, knowledge that precedes personal experience is accounted for within Quine's empirical theory. Stereotypes of women are found to originate not in personal experience, but

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[51] Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism", p. 42.

rather to be hereditary components of conceptual schemes pertaining to society over time.

Having explicated the paradox of stubbornness, the conflicts between stereotypical knowledge regarding women and both empirical evidence and other knowledge, and their epistemic source; one final question remains. As the closing thought to this paper, the question begged relates to the ability to change stereotypes about women. As previously detailed, extensive contrary evidence does not appear to cause revision of these posits, that is, stereotypes, to which empirical knowledges are subject. Perhaps, then, they may only be revised by the changing of the conceptual scheme itself, i.e. a paradigm shift.

Quine describes the changing of conceptual schemes as slow, conscious, and voluntary processes.[52] It is a simultaneous act of reconstruction amidst dependence on the evolving conceptual scheme itself as the body of knowledge, like "a mariner who must rebuild his ship on the open sea".[53] It is unclear whether the "we"[54] that Quine alleges capable of changing the conceptual scheme denotes a multiplicity of individuals or a community as a whole. This question is particularly consequential for the paradox of stubbornness entailed in stereotypes. The conservatism and the pragmatism that Quine invokes in his theory inhibit a socially instigated change to the community's own convenient conceptual scheme. Therefore, it would rather seem, also if not Quine's intentional denotation, that the catalysts of such a voluntary change in the conceptual scheme would rather need to be individuals whose own personal conceptual schemes have, in that respect, differed substantially enough from the community's.

However, Quine does hint at the volatility of the collective conceptual scheme despite its reiterating inheritance as pre-existing knowledge for every individual member of the community throughout history. He writes: "The conceptual

[52] Quine, "Identity, Ostension, and Hypostasis", pp. 78–79.
[53] Quine, "Identity, Ostension, and Hypostasis", p. 79.
[54] Quine, "Identity, Ostension, and Hypostasis", pp. 78–79.

scheme in which we grew up is an eclectic heritage, and the forces which conditioned its evolution from the days of Java man onward are a matter of conjecture."[55] The existence of individually varied conceptual schemes within the collective body of knowledge opens the opportunity for such epistemic evolution. This offers an alternative idea as to the ways in which stereotypes regarding women may indeed be dismantled. Perhaps, a sufficient number of voluntary, conscious changes in individual conceptual schemes can cause the build-up of ample pressure on the socially held fabric of knowledge. This pressure will then seep into the interior of enough ruptures may form in the epistemic mechanisms framing the knowledges. If a critical mass of pressure is attained, enough ruptures may form in the epistemic mechanisms framing the knowledges, so that the existing posits will not be able to hold out any longer against the amounting readjustment.

The crumbling of the fabric may eventually lead to a crash, a tipping point in which the individually volunteered changes succeed the ontology of the inherited social conceptual scheme. Such a succession may readjust the very construct of the fabric and thus let loose the existing posits from among its epistemic mechanisms. At such a point, stereotypes regarding women will be revealed as the posits they are: fictitious myths lacking empiric foundation. This stereotypical knowledge of women will then be cast away from the utilized posits of the conceptual scheme, allowed to be recognized as the myth it is, as is the case with the gods of antiquity.

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[55] Quine, "Identity, Ostension, and Hypostasis", p. 77.