Psychic Distance, Psychic Distance Paradox and FDI: 
An Economic Model Of MNC Behavior

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I – Introduction

Multinational corporations (MNCs), no doubt, face a much more complex environment than strictly domestic enterprises. In describing this complex environment faced by MNCs, some writers have utilized the notion they call psychic distance. The concept was initially utilized in 1956, to describe aspects of complexity faced by firms when they export goods and services to other nations. However, it only gained prominence during the 1970s, when members of the Uppsala school in Sweden introduced what they called the internationalization theory. Specifically, psychic distance as a concept relevant to international business activity was brought to prominence by authors such as Johanson and Vahlne (1977), Johanson and Wiedersheim – Paul (1975), and others. In this body of work, it was argued that companies begin their internationalization process in countries that are less distant psychically before venturing to more psychically distant countries. (O’Grady and Lane, 1996, p. 309). As argued by Johanson and Vahlne (1992), entering countries that are close psychically reduces the level of market uncertainty that firms face. According to Kogut and Singh (1988), for these international firms it is easier to learn about markets in countries that are psychically close. As explained by O’Grady and Lane: “There is an implicit assumption that psychically close countries are more similar and that similarity is easier for firms to manage than dissimilarity, thereby making it more likely that they will succeed in similar markets.” (1996, p. 310). In other words, as suggested by O’Grady and Lane, “beginning in psychically close countries should improve the company’s chances of successes in these markets.” (op.cit).

However, in their 1996 paper, O’Grady and Lane also indicated the possibility of reaching the opposite conclusion. They argue that: “starting the internationalization process by entering a country psychically close to home may result in poor performance and, possibly, failure.” (op.cit). O’Grady and Lane referred to this possibility as “the psychic distance paradox.”

What causes this paradox? O’Grady and Lane’s explanation is that perceived similarities can cause decision makers to fail because they do not (adequately) prepare for the differences.

In this paper, I will try to argue that psychic distance, and psychic distance paradox, has implications beyond trade activities that are emphasized in the literature. In my view, these concepts have relevance to all international activities, including foreign direct investment. What I intend to do in this paper, using behavioral economics, is to seek an alternative explanation of psychic distance and psychic paradox, and their impact on FDI decision making and other international economic activities. After discussing those concepts, I will develop a model that, while explaining psychic distance and the possibility of psychic paradox, can also explain the above-mentioned decisions by firms. This model, inspired by Ronald Heiner’s C-D gap model, is a behavioral economics-based model that is capable of
capturing all the complexities of the international process, including the uncertainties involved. However, before developing this model, the nature and origins of psychic distance, as well as what O’Grady and Lane have called psychic paradox, will be presented.

II – Psychic Distance: A Concept, Its Origins

Economist W. Beckerman, in his 1956 *The Review of Economics and Statistics* paper “Distance and the Pattern of Inter-European Trade,” among other things, viewed psychic distance as a barrier to international trade. To him, in addition to geographical barriers, international trade can also be affected by psychic distance barriers. (1956, p.36). In his 1966 book *An Econometric Study of International Trade Flows*, Hans Linnemann too indicated psychic distance as a factor afflicting international trade. But what did they mean by the psychic distance? According to Robert Joliet and George Hubner, it can be defined as “the perceived distance between the home country and a foreign country, resulting from the differences in terms of cultural, business, and political differences, i.e. differences in language, political and legal systems, trade practice, industry structure, etc.” (2003, p. 5).

The concept of psychic distance was occasionally mentioned over two or so decades, after Beckerman had used it in 1956. However, it gained its prominence in the mid-1970s, with the introduction of internationalization theory by the members of the Uppsala school in Sweden. Specifically, it gained prominence in the works by authors such as Johanson and Wiederschein – Paul (1975), and in particular by Johanson and Vahlne (1977). For Johanson and Vahlne, differences in language, culture, political systems, level of education, and levels of industrial development affect business activity, thus FDI, and other forms of international production, because such differences prevent or at least disturb the flows of information between firms and the market. In their explanation of the internationalization process, Johanson, Vahlne and other members of the Uppsala school maintained that firms are likely to begin their international expansion in countries that are psychically close before gradually expanding into countries that are psychically distant. Influenced by Roy Vernon’s product life cycle theory (1966), Johanson and Vahlne argued that regarding entry mode, the first step is: “exporting to a country via an agent, later establish a sales subsidiary, and eventually, in some cases, begin production in the host country.” (1977, p. 24). Of course, to them, this entry sequence for the firm is expected to begin in psychically close markets before expanding into more distant markets. After all, in the Uppsala school tradition, psychic distance consists of factors that prevent or disturb firm’s learning about and understanding of a foreign environment. (Nordstrom and Vahlne, 1994, p.43). Or, as suggested by D.J. Lee, psychic distance is the distance between the home market and a foreign market, resulting from the perceptions about both cultural and business differences, where business differences are said to be attributed to differences in language, education, business practices, political and legal systems, economic environment, religious, and industry structure. (Lee, 1998).

To operationalize psychic distance, various Swedish writers used the following indicators: level of economic development in the importing country; differences in the level of economic development between Sweden and the host countries; level of education in the importing countries; differences in the level of education between Sweden and the host countries; differences in business language; differences in culture and local languages; and existence of previous trading channels between Sweden and the host countries. These indicators were measured using publicly available statistics and data from the Swedish Export Board. Later, various writers relied on measures of culture to quantify psychic distance between countries. In other words, they used cultural distance as a synonym and proxy for psychic distance. (O’Grady and Lane, p. 312).
While for Nordstrom and Vahlne (1992) psychic distance consists of cultural, structural (i.e. legal and administrative), and language differences, for O’Grady and Lane, however, psychic distance should also include industry structure and the competitive environment.

Nordstrom and Vahlne developed a psychic distance index. According to this index, in terms of distance from Sweden, the overall range of scores was from .5 (Norway) to 79.2 (Chile). In this, the United States ranked ninth in distance from Sweden (25.3) and Canada tenth (27.1). In 1985, Ronen and Shenkar reviewed eight comparative studies of attitudes conducted for some two decades. In their review, they found that Canada and the United States were consistently in the same “Anglo cluster.” (O’Grady and Lane, p. 312)

III – The Psychic Distance Paradox: Why a Paradox?

As stated above, for Johanson, Vahlne, and other members of the Uppsala school, firms are likely to begin their international expansion in countries that are psychically close, before gradually expanding to countries that are psychically distant. On that basis, for example, Canadian firms would be more successful in entering the U.S. market as opposed to markets in countries that are psychically distant. However, in their 1996 study, O’Grady and Lane found that Canadian firms which entered the United States market experienced a great deal of failure. This is what these two authors called the psychic distance paradox. More specifically, O’Grady and Lane write: “This research presents evidence demonstrating that starting the international process by entering a country psychically close to home may result in poor performance, and, possibly failure.” (1996, p.31).

What causes this paradox? In their explanation of the paradox, O’Grady and Lane write: “Instead of psychically close countries being easy to enter and to do business in, we argue that perceived similarity can cause decision makers to fail because they do not prepare for the differences.” (p.10). Citing Johanson and Vahlne (1992), O’Grady and Lane also argue that: “The failure lies in the managerial decision aspects of the internationalization process, to which researchers have not paid enough attention”. In addition, as Johanson and Vahlne (1992) argue, even in psychically close countries such as Canada and the United States, there might be significant differences that can affect the ability of managers to conduct business. In other words, what appears on the surface to be psychically close may, in reality, be more distant than expected. In their study of ten Canadian (retail) firms operating in the United States, O’Grady and Lane reached the conclusion that eight of them were unsuccessful, demonstrating the presence of what they referred to as psychic distance paradox (1996, p.317). To them, this situation is created by common, but unexpected, assumptions or underlying beliefs about the United States held by decision-makers in the Canadian retail companies. As they argue: “These mental maps or preconceived ideas of the United States, and what it would be like to do business there, created barriers to learning about this new market.” (1996, p. 325). More specifically, according to O’Grady and Lane, (1) Canadian executives made the erroneous assumption that the United States is just like Canada, only larger; (2) because the United States is closer to Canada, it must be easier to do business there than in countries that were further away geographically; (3) because the retail concept worked in Canada, the retail concept could easily be transferred to the United States; and (4) the old assumption that: “Streets are paved with gold in the United States.” (1996, p.326)
IV – Behavioral Economics, FDI and Other International Production Decisions

During the first half of the 20th century, international production (including FDI) comprised a small share of international business. Since international trade constituted the largest component of international business, international economists continued to focus their attention on the explanation of trade among nations. Initially, the neoclassical version of the comparative advantage doctrine (now known as the Heckscher-Ohlin-Samuelson, or the H-O-S model), which assumes perfect immobility of the factors of production (including FDI), was utilized in the explanation of international trade. However, because of the complexity of trade relations, and the rise of non-trade activities after WWII, this attempt was futile.

Unable to explain the unprecedented rise of FDI after WWII via the neoclassical version of the comparative advantage doctrine, since it assumed factor immobility among nations, for explanation, international economists adhered to the neoclassical arbitrage theory of portfolio flows, which had originated by Iverson in 1936. This too proved futile, for it could not explain FDI and other types of international production. Although economists like Stephen Hymer, Kindleberger, Dunning and others tried to utilize other tools of economic theory (i.e. theories of industrial organization, market failure, and transaction costs economics) to explain foreign direct investment, still FDI theory gradually moved away from economics, and towards the new interdisciplinary field of international business. This move can partly be explained by the absence of realism on the part of conventional/neoclassical economics. However, this need not be the case. In other words, an argument can be made that, economics, when it includes proper, realistic, and relevant assumptions, should be able to explain the FDI and other international trade and production decisions. This can be done by utilizing the new field of behavioral economics. For, neoclassical economics is too narrow to capture the political, cultural, and economic realities of international production, and cannot explain concepts such as psychic distance and psychic distance paradox. However, behavioral economics will not have any difficulty capturing such non-economic dimensions. The reasons are as follows: (1) behavioral economics tries to make economic theory consistent with the accumulated body of knowledge in all social and behavioral sciences: sociology, anthropology, organization theory, decision science, and in particular psychology; (2) this new type of economics tries to improve the assumptive realism of economic theory by emphasizing the importance of empirical research and the explanation of observed behavior, rather than deducing principles of economic behavior from features of human nature assumed to be valid at all times and in all cultures; and (3) it objects to the neoclassical acceptance of the simplistic economic model of rational choice exhibiting optimizing behavior. It is in this spirit that the late Herbert Simon introduced the notion of bounded rationality and replaced the maximization assumption of conventional economics with satisficing. (See Hosseini, 2003, and 2005).

As a result of this point, it is logical to assume that MNC decision makers are not omnisciently rational. Rather, in the face of complex and uncertain political, economic, and cultural environment, MNC decision makers, as real/imperfect human beings, display limited mental and analytical capacity.

A local firm, when it decides to go international, faces numerous choices in terms of the mode of operation (from exporting to licensing, to joint ventures, and to FDI) and location. Each of these choices is more complicated than the choices the local firm faces when it produces and sells its products in the home market. The internationally inclined firm has to decide the nature and location of its mode of operation in the host country. This decision becomes even more complicated since it also has to decide about its distribution facility, which links production to final demand involving warehouses, mode of transportation, retailing, and perhaps even investigation of consumer tastes and needs within that market. And, if it wishes to go international via FDI, it must also decide between greenfield FDI, as opposed to acquired FDI. The same applies to its choice of joint venture, or even distribution facility (utilizing an
independent distribution facility in the host country, as opposed to owning its own). These are numerous alternatives that the firm faces; choosing among all these combinations that involve different modes, different locations, and types of ownership, is an extremely difficult task and a very complicated one. Obviously, psychic distance (in its economic, political and cultural dimensions) is an important factor for the consideration of the nature and mode of entry by MNC managers. The following demonstrates aspects of this importance.

Deciding one of the many choices indicated above will require a careful evaluation of various economic factors such as economies of scale, how much it wants its market in the host country or region to be, the availability of needed human resources and the levels of their skills in the host market and, for extractive industries, the availability of resources to be extracted.

Of course, economic factors are not the only concerns. MNC decision makers should also understand cultural differences between the home and the host country. This has been emphasized by members of the Uppsala school, such as Johanson and Vahlne (1977, 1990), it has also been emphasized by Nohria and Ghoshal (1994), Kogut and Singh (1988), Gomez-Mejia and Polick (1997), and others.

Political factors too, particularly when they change and change unexpectedly, are also important factors to be considered. For, among other things, they can also influence the process of information gathering by MNC decision makers, and the choices they have to make. As early as 1966, Aharoni argued that MNCs must be more concerned about international political uncertainty than cost situations. While cost situations usually change slowly and gradually, international political changes can be drastic and abrupt. Such abrupt changes can include: revolutions, coups, sanction regimes, political violence against certain firms or an industry, and expropriations. These changes, which lead to political uncertainty, and can be very costly to MNCs, are difficult to predict. Of course, political uncertainty may also lead to an overoptimistic assessment of the international (FDI, etc.) decision.

V – A Model of International Decision Making: How to Incorporate Psychic Distance

From the perspective of behavioral economics, MNCs must be viewed as complex organizations and their decision makers as real human beings who are only boundedly (and not omnisciently) rational. Being real, these decision makers do not possess identical capacities to interpret information relevant to the benefit and difficulties of FDI or other international decisions. Thus, information-processing skills (about psychic distance, and the possibility of gainful international activity) are non-homogenous, and uncertainties are agent specific. In this uncertain international environment, MNC managers must make decisions whose difficulties (in terms of the degree of psychic distance) exceed their own competence. (As a result, decision-making moves from one of risk to one of uncertainty). This is to suggest that while the international environment is very complex, decision makers have limited capacity for facing this complexity. (See Hosseini, 2003).

This situation seems to reflect a behavioral economics based model that Ronald Heiner developed in his 1983 American Economic Review article. (Needless to say that Heiner’s model, rejecting the straight jacket of neoclassical economics, can be viewed as a behavioral economics-based one, for it emphasizes bounded, thus less than full rationality, complexity of the environment economic agents face, and the importance of non-economic variables).

Let U represent the uncertainty associated with making a right international entry (exporting, FDI, etc.) decision. It can also be assumed that U is a decreasing function of perceptual abilities (in terms of understanding the degree of psychic distance), P, and an increasing function of the complexity of the MNC’s international environment. Since the complexity of international environment rises with an
increase of psychic distance, we can view it as a measure of psychic distance, E. It is obvious that E itself is a decreasing function of newly attained information concerning psychic distance (i.e. cultural, political, or economic), N. Thus, we can write:

\[ U = (P, E(N)) \Rightarrow \text{equation (1)} \]

where:

\[ U'(P) < 0 \]
\[ U'(E) > 0 \]
\[ E'(N) < 0 \]

This new information (N) may either increase or decrease the risk-adjusted value of an international investment project (from exporting to FDI). We can argue that this new information decreases the complexity of the international decision (about psychic distance). This is because new information (cultural, political, etc) can help MNC managers to revise previously held expectations about the country in which they intend to enter. Of course, the impact of this new information may be positive or negative, depending on whether it is viewed as positive or negative. Positive new information can increase the size/volume of the intended investment, while new negative information can lead to a reduction in its volume. For, decision makers will become more informed about the various dimensions of psychic distance. Of course, realistically speaking, international information gathering is a subjective enterprise, since different managers will react to this new information differently. (Thus some managers may fail in their business ventures in a psychically close country, not being able to utilize the new information properly).

In this model, the decision to enter a foreign market, and the amount of commitment/investment, is a function of the level of uncertainty faced by the MNC (thus about psychic distance). The conditional probability that the MNC will decide to enter when it should, depends on this uncertainty we term R(U). By the same token we let W(U) denote the conditional probability of making a foreign entry decision when it should not. Both of these probabilities are functions of

\[ U(= \text{the uncertainty associated with making a right international entry decision}) \text{, where} \]

\[ R'(U) < 0 \text{ and} \]

\[ W'(U) > 0 \]

Thus, as uncertainty (U) increases, R will decrease and W will increase, thus the ratio of

\[ \frac{R}{W} \]

will decrease.

Let Q(E) be the probability that the firm’s entry decision is correct, and 1 – Q(E) the probability that the firm’s entry decision is incorrect. (E being a measure of complexity or psychic distance).

Let us assume that for the firm, if it enters a foreign market when it should, its success is shown by a positive profit (gain) rate of G(E), and if it enters when it should not, it fails, as measured by a loss of L(E). Obviously, MNC managers should know that entry should take place if the expected gain (i.e. success rate) exceeds expected loss (i.e. failure rate).
Since:

\[ \text{Expected gain} = G(E) \cdot R(U) \cdot Q(E) \]

and

\[ \text{Expected loss} = L(E) \cdot W(U) \cdot [1 - Q(E)] \],

we can write:

\[ G(E) \cdot R(U) \cdot Q(E) > L(E) \cdot W(U) \cdot [1 - Q(E)] \Rightarrow \text{equation (2)} \]

Dividing both sides of equation (2) by \( G(E) \cdot Q(E) \cdot W(U) \)

We will have:

\[ \frac{G(E) \cdot R(U) \cdot Q(E)}{G(E) \cdot Q(E) \cdot W(U)} > \frac{L(E) \cdot W(U) \cdot [1 - Q(E)]}{G(E) \cdot Q(E) \cdot W(U)} \]

Since \( U \) is in effect \( U(P, E) \), and our reliability condition can be written as:

\[ \frac{R}{W} = B(P, E) \]

We can re-arrange equation (2) to get a third equation, thereby introducing the tolerance limit, \( T(E) \).

\[ B(P, E) = \frac{R[U(P, E)]}{W[U(P, E)]} > \frac{L(E) \cdot [1 - Q(E)]}{G(E) \cdot Q(E)} = T(E) \Rightarrow \text{Equation (3)} \]

The left hand side of the inequality is the reliability ratio, which is the ratio of two conditional probabilities, i.e. the probability of correctly entering a foreign market when the entry leads to gain relative to the probability of that entry when such action leads in a loss. This ratio shows how an agent’s competence – complexity gap affects the relative probability of making an incorrect foreign entry decision compared to the probability of making a correct decision.

\( T(E) \) is the tolerance limit, which is a number greater than zero.

In the context of foreign entry, \( T(E) \) would be different depending upon the risk-adjusted expected values. As the risk-adjusted expected value of a foreign project of the firm becomes negative due to a large (far) psychic distance, the project (i.e. entry) becomes less desirable. \( T(E) \) of greater than one represents foreign entries of negative expected value (due to large/far psychic distance), \( T(E) \) of one shows equilibrium, and \( T(E) \) of less than one (but positive) is the opposite (due to small psychic distance). At any time, the risk-adjusted expected value of a foreign entry project may be positive or negative depending upon the positive/negative values of \( G(E), L(E), \) and \( Q(E) \). In this model, the value of \( T(E) \) may deviate from its equilibrium value of one, representing a behavioral change for the decision makers. The degree and speed of this change depends on their reliability ratio, which in turn depends on the conceptual competence to interpret new information, and the degree of \( T(E) \) divergence from one.

If new information becomes difficult to obtain, or if because of overconfidence and/or preconceived notions about host countries MNC managers fail to seek it, actions will not be fully reliable and mistakes become possible. This is the situation in which O’Grady/Lane’s notion of psychic distance paradox becomes possible. It is obvious that, for the MNCs of the industrialized countries, the competence-complexity gap will be lower and reliability higher for the markets of psychically close (i.e. other industrialized) countries. The only exception occurs when information is difficult to understand, or
when mistakes are made (i.e. a situation that leads to psychic distance paradox). This is why MNCs make
greater commitment/investment in the markets of other industrialized countries, particularly if they are
culturally closer (i.e. with smaller psychic distance). By the same token, those MNCs would make far
less investments in a given country during periods of political upheaval, or economic crisis.

As stated before, in this model, in contrast to traditional maximizing economic models, we
assume that decision makers are non-homogeneous in terms of their perceptual abilities. We can
introduce this non-homogeneity by assuming that different MNC managers have different perceptual
abilities in the form

of: $P_1 > P_2 > P_3 \ldots > P_n$

Given that they all have equal access to information (say disseminated through the media), and thus they
all face the same degree of complexity, then we can assume that the uncertainties faced by those
managers are the opposite:

$U_1 < U_2 < U_3 \ldots < U_n$

Recalling that $R(U)$ in the probability that a foreign investment is being made when it should be,
$W(U)$ in the probability of it when foreign investment should not be made, and that $R(U)$ is a decreasing
function of $U$ and $W(U)$ an increasing function of it, then:

$R_1(U) > R_2(U) > R_3(U) \ldots R_n(U)$

and

$W_1(U) < W_2(U) < W_3(U) \ldots < W_n(U)$

These together imply that:

$B_1(P_1, E) > B_2(P_2, E) > B_3(P_3, E) > \ldots B_n(P_n, E)$

Each of these MNC managers would decide on the feasibility of a foreign entry project depending
upon its net present value. In other words, if for each project $B(P, E)$ exceeds its $T(E)$. If information is
vague and confusing (even with low psychic distance), it brings a high level of uncertainty where: $B(P, E) < T(E)$. Thus (in this case of psychic paradox) the project will not be undertaken unless additional
information surfaces.

The most realistic case would be that when the reliability rate exceeds the tolerance limit for
some MNCs, and not for others (even if psychic distance is the same). Thus, a foreign project would be
undertaken by those MNCs whose $B(P, E)$ exceed their $T(E)$. In the absence of a competency –
complexity gap, decision makers have no difficulty in interpreting information/news, and there is no room
for mistakes. Of course, that is unrealistic, explaining why mistakes or gaps can lead to the psychic
distance paradox.
VI – Concluding Remarks

No doubt, MNCs face a much more complex environment in countries other than their home country. And, we saw that this complexity has various economic, political, geographic, and cultural dimensions. The various dimensions of this complexity would also result in various degrees of uncertainty. As was demonstrated above, the extent of the complexity faced by MNC decision makers is very much associated with the degree of psychic distance. As a result, in their international projects, MNC decision makers find it easier to operate in psychically close countries than in distant ones. However, as we saw, MNC decisions about their international projects cannot be made on the basis of psychic distance alone. For, in certain cases MNCs may do worse in psychically close countries. This is what O’Grady and Lane called psychic distance paradox. The existence of this paradox suggests that MNC decision makers must go beyond psychic distance in deciding about their international projects.

I tried to argue that the newly developed field of behavioral economics is capable of explaining the MNC decision while taking into account both the psychic distance, and the psychic distance paradox. For, behavioral economics goes beyond the narrow confines of neoclassical economics. Because it tries to make economic theory consistent with the accumulated body of knowledge in all social and behavioral sciences, and emphasizes the importance of empirical research and the explanation of real/observed behavior rather than deciding principles from an assumed human nature to be valid in all times and cultures (such as the optimization behavior of all economic agents), behavioral economics can also capture the complexity of MNC decision making, and psychic distance and psychic distance paradox. Utilizing the behavioral economics based model, which was initially suggested by Ronald Heiner, we are able to explain all of the above at the same time. This suggests that behavioral economics can be an integral component of the tools used by international business.
References


