

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

Copyright is owned by the author of this thesis. Permission is given for a copy to be downloaded by individuals for the purpose of private study and research only.

**Returning home to work in China after sojourning overseas: What
does Justice Theory say about appropriate Remuneration for
Organizational Commitment and Retention?**

A thesis presented in partial fulfillment of requirements for the degree of

Master of Science

in

Psychology

at Massey University, Albany

New Zealand

Ruijue WU

2013

Abstract

Foreign-invested firms in China have become a major employment destination for China returnees (people who have either worked, or studied, overseas prior to returning home to China). Some of these firms offer a local salary to China returnees, whilst others provide them with a salary that is intermediate between a local and an international salary, typically anywhere from 20% -50% higher than the local salary but still much less than the wages paid to expatriates in the same or a similar job. This paper explores how these two remuneration options (local, intermediate salary, paid to China returnees) may link to those same China returnees' perceptions of distributive justice, their organizational commitment and their possible turnover intentions. A survey of $N = 109$ returnee employees working in $n = 109$ different foreign-invested firms responded to an online questionnaire. Psychological measures included self-reported salary and preferred pay referent (local worker/foreign expatriate/returnee colleague), sense of distributive justice ($\alpha = .92$), feelings of organizational commitment ($\alpha = .91$) and thoughts about turnover ($\alpha = .92$). There were controls on social desirability and human capital (overseas professional work experience). All $N = 109$ China returnees in this research were collected by using a snowball sampling method. Salary type *itself* did not produce a main effect on China returnees' perceptions of distributive justice ($F(1, 101) = 1.61, p > .05, \eta^2 = .02$); on the other hand, a clearer effect on Distributive justice for Preferred referent was found ($F(2, 101) = 69.7, p < .001, \eta^2 = .58$). Moreover, China returnees' perceived distributive justice in salaries was found to be a joint function of both salary type and their choice of preferred pay referent ($F(2, 101) = 17.75, p < .001, \eta^2 = .21$). Specifically, workers whose main reference point was a local worker reported feeling significantly more distributive justice when they received an intermediate salary, but for those whose point of reference was expatriates, intermediate salaries were counter-intuitively linked to *reduced* distributive justice, compared to returnees who were paid a local salary. Returnees who preferred other returnee colleagues (whose

salary was always identical to their own, regardless of its type) did not differ on justice across local versus intermediate pay. When a local worker was the preferred pay referent, perceived distributive justice also fully mediated between salary type and their organizational commitment ($z = 2.43, p < 0.05$). The current research is among the first to discover the questions around foreign-invested firms' remuneration options and employee attitudes of China returnees, by developing a research model that involves major variables of salary type, preferred pay referent, distributive justice, organizational commitment and turnover intention. These findings as a whole are consistent with relative deprivation theory and with equity theory. It would be desirable in future research to have a larger sample size in order to increase statistical power to detect effects, such as the borderline mediation which was found between salary type and turnover intention when a local worker was the preferred referent.

Acknowledgements

This thesis would not have been possible without the support and guidance of several people who contributed and extended their valuable assistance in the preparation and completion of this research project. First of all, I would like to express my sincere gratitude to my supervisor Professor Stuart Carr for his constant help and prolific suggestions, and for his patience, motivation, enthusiasm and immense knowledge. Without his guidance and encouragement in all the time of research and writing of this thesis, this project would not have accomplished.

Besides my supervisor, I would like to thank the postgraduate Coordinator, Dr. Habermann for his encouragement and advice on my study. Without his assistance this study would not have been successful.

I would like to also thank my friends Emma Song and Pei Xu, for providing me useful thesis-related information and giving their best suggestions on my study. My project would not have been possible without their helps.

Special thanks also to the participants who took their time out to complete my online questionnaire, without them this thesis would not have been possible.

Last but not least, I would like to thank my parents who unremittingly supported me during my years of study. They made this thesis possible.

Table of Contents

Abstract	i
Acknowledgement	iii
Table of Contents	v
List of Tables and Figures	vii
Chapter 1: Thesis Question and Critical Literature Review	1
1.1. Salary type and Distributive justice	6
1.2. The choice of Referent	9
1.3. Importance of particular pay referent	13
1.4. Distributive justice and employee attitudes (Organizational commitment and Turnover intention)	17
1.5. A possible mediating role for Distributive justice	20
Chapter 2: Method	21
2.1. Sample	21
2.2. Measure	22
2.3. Procedure	27
Chapter 3: Results	29
3.1. Data reduction – Protocol	29
3.2. Descriptive statistics and correlation between mean scores per item per factor	34

3.3. Central Tendencies	36
3.4. Testing Hypothesis 1-4: Relationships among Salary type, Preferred referent, and Distributive justice	38
3.5. Testing Hypothesis 5: Does Distributive justice mediates the relationship between Salary type and Organizational commitment?	43
3.6. Testing Hypothesis 6: Does Distributive justice mediates the relationship between Salary type and Turnover intention?	47
Chapter 4: Discussion	51
4.1. Summary of the Results	51
4.2. Links to Theory	52
4.3. Limitations of current research and possible suggestions for future studies	55
4.4. Practical implications	58
4.5. Conclusions	60
Reference	61
Appendices	67
Appendix 1: Questionnaire	67
Appendix 2: Advertisement for research participants	75
Appendix 3: Information sheet	76

List of Tables and Figures

Table 1	Exploratory factor solution for major variables and covariate	31
Table 2	Correlation Matrix of Major variables	35
Table 3	Mean distributive justice by categories of Salary Type and Preferred Referent	37
Table 4	Results of 2-way ANCOVA on Salary type and Preferred referent	39
Table 5	Mediation relationship of Salary type on Organizational commitment through Distributive justice	44
Table 6	Mediation relationship of Salary type on Turnover intention through Distributive justice	47
Figure 1	Hypothesized model for China returnees	5
Figure 2	Interaction effect of Salary type and Preferred referent on Distributive justice	41

Chapter 1

Thesis Question and Critical Literature Review

As one of the fastest growing economies in the world, China has been attracting more and more overseas Chinese nationals to return home, and has been providing unprecedented career opportunities to those overseas returnees in the form of self-initiated repatriation. According to the 6th news conference of the Ministry of Education of the People's Republic of China in 2009, more than 20,000 people returned each year after 2003, and the total number of China returnees is near 390,000. Among them, more than one-third of China returnees¹ may work for foreign-invested firms located in China (NBSC, 2009). The term "foreign-invested firms" generally refers to three types of firms: 1) equity joint venture; 2) cooperative joint venture; and 3) wholly owned foreign enterprise, the difference among these company types depends on the company's ownership. For example the main difference between cooperative joint venture and wholly owned foreign enterprise is that, for the former it is formed jointly by at least one Chinese investor and one foreign investor in accordance with Chinese regulations and laws; for the latter it is subscribed and contributed solely by other foreign enterprises.

¹ The term "China returnees" refers to people who were born in China and returning home after sojourning overseas; they have either overseas work experience or study experience.

A major reason that foreign-invested firms become an attractive employment destination for returnees might be the better pay that many of them normally offer, compared to domestic companies and state-owned enterprises (which generally offer a local salary to their employees). This thesis will explore whether the offering of intermediate salaries brings a significant motivational advantage, or not, compared to offering a local salary.

Foreign-invested firms commonly offer two types of pay for China returnees, either an intermediate salary (which is intermediate between a local and an international salary), or a local salary (same as the one offered to local Chinese colleagues working in the same company). With the same level of qualification (for returning students) or years of working experience (or returning workers), a China returnee commonly is paid higher salary than a local colleague (Sina Education, 2011). Anecdotally, Sina Education news (2011) says, one report from UK's largest head-hunting company - Hays - shows that in the same company under the same job position, the average annual salary of China returnees is more than 20% higher than other local employees. In an online survey conducted by Education International Cooperation Group (one of China's largest consulting companies), $N = 6784$ China returnees were sampled from all across the country in 2009. Despite having the same levels of qualification and years of work or study experience, the average annual salary for a China returnee can be up to 50% higher than his/her local colleague working in the same firm. It is public knowledge that the difference between the local worker and a returnee is that the latter has sojourned overseas, either as a student or a worker.

Common sense might suggest that rewarding and thus recognizing this overseas experience would retain returnees' sense of work justice and commitment. However, for returnees who receive a local salary (which implies that their overseas work or study experience/qualification is not rewarded or recognized by their company since they are paid the same amount of salary as their local colleagues who have not sojourned overseas), and therefore it may hardly to retain their sense of work justice and commitment therefore may not be retained.

For these same locally-paid China returnees, there is also a salary disparity, a significant shortfall in fact, between themselves and their expatriate colleagues in the same firm. A number of previous studies on pay disparities between local workers (who are sedentary, don't have any extra overseas experience and are paid a *local* salary) and international expatriates (i.e., receive an international salary) in foreign-invested firms in China have been undertaken. In one study for example, it was found that locals receiving local salary reported low levels of work justice, work motivation but more thoughts about turnover and international mobility (Zhou, Lu, & Li, 2010). In other similar studies which were also conducted in Chinese context, it has been found that local workers (paid a local salary) tended to regard their salary as unfair and they were more likely to have low levels of organizational commitment and job satisfaction when they compared with expatriates who were generally receiving much higher pay (the salary of expatriates working in China is at least two times higher than the local salary) (Chen, Choi & Chi, 2002; Choi & Chen, 2007; Leung, Wang & Smith, 2001; Leung, Zhu & Ge, 2009; Zhou et al, 2010). Those China workers studied were all sedentary

local workers rather than China returnees. Hence the previous literature is indirectly suggesting that returnees who receive a local salary will feel unfairly treated, if they look to expatriate rates for comparison. The current research is unique because it will test the suggestion directly.

For China returnees who receive an intermediate salary, common sense - more pay is usually better than less pay - may suggest that the salary advantage they have over local workers in the same company would retain returnees' sense of work justice and positive employee attitudes, for example, organizational commitment. However, such salary advantage may not all positive. There are at least two theoretical reasons why an intermediate salary may not necessarily be optimal. Firstly, previous studies, for example, in higher education, Carr, MacLachlan and Chipande (1998) have found that being paid more than local counterparts may lead to low intrinsic motivation (de-motivation), since the higher paid individuals have more guilt about their comparatively largely salaries. As the average intermediate salary for a China returnee is at least 20% - 50% higher than his/her local colleague working in the same firm, I suggest that such salary gap may possibly spur some guilt and make those returnees feel at least slightly uncomfortable. Secondly, there is also a significant salary gap between China returnees who receive an intermediate salary and international expatriates. I suggest that intermediately-paid returnees can also have low levels of work justice and organizational commitment and high levels of turnover intention, because they may see

their intermediate pay more as a deficit compared to expatriates, than as a benefit compared to locally-salaried counterparts who have not travelled overseas².

Few studies have investigated how China returnees respond to salary gaps between themselves and their local or expatriate colleagues. This thesis explores China returnees' perceptions of distributive justice and their employee attitudes – organizational commitment and turnover intention. A theoretical model for this study is depicted in Figure 1.

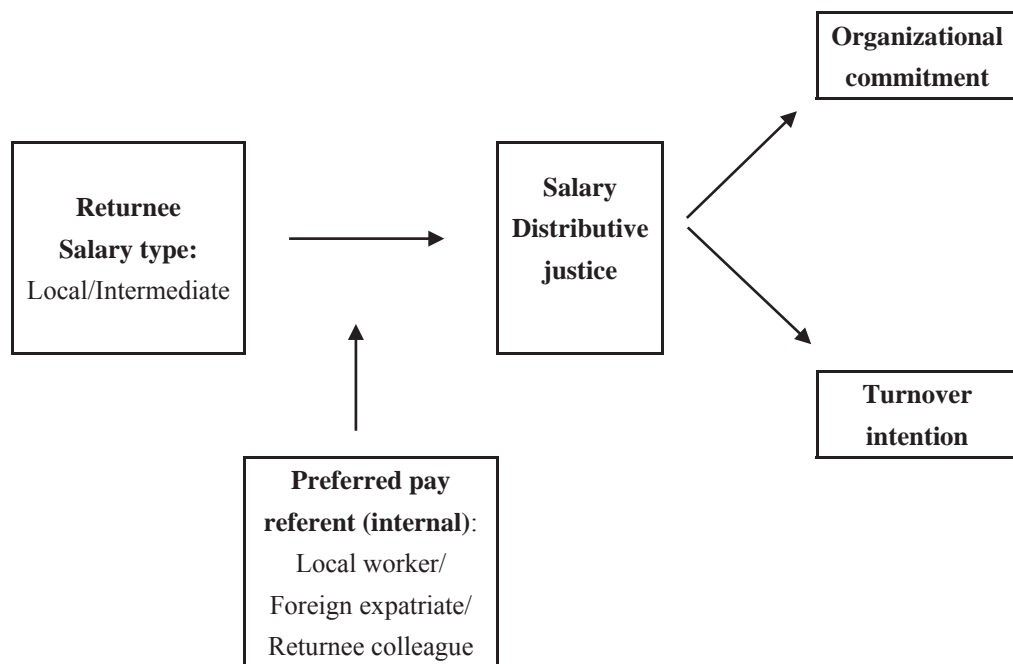


Figure 1 - Hypothesized model for China returnees

² It is rare to find a fellow returnee who is paid differently from oneself in the same firm, so we do not expect to see any returnees comparing against fellow returnees on a different salary.

In Figure 1, a “Returnee” is either a returning student or workers. “Preferred pay referent” (local worker, foreign expatriate and returnee colleague) is hypothesized to interact with “Salary type” (local versus intermediate salary) to co-determine the level of “Distributive justice,” which in turn links positively to “Organizational commitment” and negatively to “Turnover intention.”

1.1. Salary type and Distributive justice

Within organizational research, attention has often focused on an exchange relationship between the employees and their employers, that is, individuals make contributions (“inputs”) to the organization for which they can expect something in return (“outcomes”). Inputs can include for example effort at work. On the other side of the exchange relationship, outcomes include for example rewards for work. Among a number of outcomes, such as pay, promotions, in cases of training, development and improvement etc., pay is one of the most important and essential outcomes that is often purposed by organizations (e.g., Milkovich & Newman, 2004).

In the current research, *Salary type* (local/intermediate salary) in Figure 1 represents the monetary outcomes – pay, which is provided by the foreign-invested firms for China returnees’ contributions to the company. A *Local* salary refers to the type of pay that is the same as the local Chinese workers generally receive. An *Intermediate* salary refers to anywhere between the local and an international salary, which is adjusted for time spent overseas. Everyone in the model in Figure 1 has had overseas experience (either as a student or a worker), which are the inputs in equity theory.

Pay can function not only as a motivator that enhances job performance and organization productivity (Gardner, Van Dyne, & Pierce, 2004), but also as a way of creating a greater sense of organizational commitment and encouraging employee retention (Lum, Kervin, Clark, Reid, & Sirola, 1998). Lum et al's (1998) research demonstrated for instance that pay policy (i.e., intensive care nurses being rewarded more highly than the general staff nurses) can result in a low sense of organizational commitment and higher level turnover intention of many of the pediatric staff nurses (general staff nurses at a metropolitan teaching hospital). Thus in the hypothesized model of this research (see Figure 1), two key employee attitudes are included: Organizational commitment and Turnover intention. These are hypothesized to be impacted by China returnees' pay. Specially, it is expected that China returnees who receive an intermediate salary will have greater sense of organizational commitment and lower level of turnover intention.

One theoretical mechanism for creating a great sense of organizational commitment as well as encouraging employee retention (versus turnover), is via workplace justice. Justice links to exchange relationships in the sense that the exchange between inputs (e.g., *Experience overseas*) and outcomes (e.g., *Type of salary*) can be perceived, by an employee, as fair or unfair (Adams, 1965). Fairness frequently takes the form of fairness in the way resources are distributed *between* employees, known from Figure 1 as "Distributive justice" (Adams, 1965).

According to Adams, an allocation of pay in organizations can bring distributive injustice when perceived inputs exceed perceived outcomes, for example if an employee

makes a sacrifice or takes a risk that is not recognized by the organization in the form of a pay increment. Such oversights, when perceived by the employee, may bring result in lower motivation and organizational commitment and higher level of turnover intention, compared to someone whose sacrifice has been well recognized. Level of Distributive justice in Figure 1 is therefore posited to mediate between salary type and both *Organizational commitment* and *Turnover intention*.

Distributive *injustice* in organizations concentrates on outcomes (e.g., pay) and it refers to the degree of perceived unfairness in the allocation of outcomes, usually as perceived by the employee rather than the organization/employer. Perception of Distributive injustice (Figure 1) occurs when the person *feels* his/her pay (i.e. outcome) is not proportional to his/her inputs (Adams, 1965). However, to evaluate whether one's pay from work are just, more precisely speaking, a third variable in addition to inputs and outcomes – called social referent, must be encompassed.

Specifically, Adams' (1965) equity theory proposes that individuals evaluate pay received from their organization by comparing their own outcomes-to-inputs ratio with the ratio of another, salient social referent, e.g., a local colleague on a local salary or an expatriate on an international salary in the current model in Figure 1. Equity is perceived when the ratio of outcomes-to-inputs is “equivalent” across individuals. For example, choosing a returnee colleague from the same company (one company is likely to offer either an intermediate salary or a local salary for returnees, but not both, thus returnees working for the same company and in the same position performing same

tasks generally receive the same type of salary) as one's preferred referent may produce perceptions of justice (equal ratios of outcomes-to inputs).

On the other hand, inequity is perceived when an unequal ratio occurs, i.e., if the comparer *feels* being either under-paid or over-paid than relevant others (Adams, 1965). For instance, a China returnee may feel being under-paid in his/her eyes if he/she takes a foreign expatriate as the pay referent who receives much higher salary than him/herself. Moreover, if a China returnee is offered an intermediate salary and takes a local worker on a local salary within the same company as his/her preferred referent, the feelings of overpayment may also result in distributive injustice, for instance if the returnee does not think he/she has any higher inputs (e.g., from overseas experience) compared to the non-overseas referent.

From Figure 1, my question in this thesis is therefore how does each "Salary type" and "Preferred referent" jointly impact on China returnees' perceived sense of "Distributive justice" (Equity).

1.2. The Choice of Referent

In Figure 1, there are three possible referents ("Local worker," "Foreign expatriate," and "Returnee colleague"). Equity theorists (e.g., Adams, 1965) suggest that people choose from one or more different social referents to make pay comparisons in determining the fairness of their pay. A comparison referent(s) could be any one who is perceived by the person as relevant for comparison, including employees in the same

organization, external employees, the self, and even friends or family members (Goodman, 1974). As there are various classes of referents available to the person, a question arises to ‘how’ a person makes his choice of comparative referent when making judgments of equity. In other words, what variables impact a person’s referent choice?

In fact, this question essentially reflects one of the major limitations of equity theory, that is, equity theory makes no specific predictions about referent choice (Kulik and Ambrose, 1992). Adams does not elaborate on how a person will choose his comparative referent and with whom this person will compare his outcomes-to-inputs ratio. Hence in this thesis I will simply ask the respondents to indicate who is their *preferred pay referent* (in Figure 1), empirically.

Kulik and Ambrose (1992) argued that individuals primarily chose similar others to make social comparisons. The term “similar others” typically refers to fellow employees performing similar tasks at a similar level of the *same* organization (Goodman, 1974) when internal or pay comparisons within a company take place. In this study, in Figure 1, there are three main possible *internal* preferred referents who are potentially salient and may be used as referents for pay comparisons within a company by China returnees: (1) a local employee who has not been abroad, (2) a foreign expatriate who has been abroad and (3) a returnee colleague who also has also been abroad. All three types of pay referents are internal referents, that is, they are working with each of the sampled China returnees in the same firm/company.

My point in this paragraph, and in Figure 1, is that internal referents: a local worker, foreign expatriate and returnee colleague are the most appropriate and important pay referents in the current study for pay comparisons, as they are the most similar others for China returnees.

Secondly, researchers (e.g., Goodman, 1974; Levine & Moreland, 1987) have proposed that the choice of a referent is a function of the availability of information about that referent. Availability of information refers to the degree of knowledge an individual has about any one referent for which some information is known. It seems logical to expect that more information will be available about internal referents (i.e., social referents in the same organization as the comparer). Additionally, previous research on selection of referents tends to frequently find empirical evidence for internal referents (e.g., Oldham, Nottenbury, Kassner, Ferris, Fedor & Master, 1986; Ambrose & Kulik, 1988). As a result, I believe internal referents of local worker, expatriate and returnee colleague in Figure 1 will play an important role in affecting China returnees' perception of distributive justice regarding their salaries in the current research.

Previous research on pay referents shows that the majority of employees compare their salary with more than one referent at the same time when making pay comparisons (e.g., Goodman, 1974; Taylor and Vest, 1992). Recent studies on work justice and employee attitudes in Chinese contexts report that local workers working in China-foreign joint ventures also used multiple pay referents, such as foreign expatriate within the same organization (internal), other local workers working in the same organization (internal), locals from other similar China-foreign joint ventures (external),

and local Chinese from domestic companies in the same industry (external), for pay comparisons (e.g., Chen et al, 2002). Thus, I suggest that returnees in the current research will use multiple referents to compare their salaries, i.e., those three main possible internal referents in Figure 1. When assess individuals' distributive justice, most of the above studies gave respondents justice items for each of the possible referents (e.g., Chen et al, 2002; Leung et al, 2009). These studies have made the assumption that the respondents compare their salary with all of the possible pay referents listed in the particular study. However, it might be problematic because respondents may never compare themselves with a particular pay referent, if they are forced to answer how fair they feel about their salary by comparing this referent (someone they never have in their mind as the pay referent), the answer may not be precise. Therefore, in this research, China returnees need to be asked to indicate how often they usually compare their salary with each of the main internal referents. I use the most frequently reported referent by the respondents as the *Preferred* pay referent, and ask them to give the level of distributive justice regarding this particular referent.

Hypothesis 1: China returnees' choice of preferred pay referent (local worker/foreign expatriate/returnee colleague) will interact with their salary type (local/intermediate) to together determine the level of perceived distributive justice. The benefits of intermediate salary will be compromised if the preferred referent is an internationally-paid expatriate.

Specifically I will now analyze the components of the interaction in detail.

1.3. Importance of particular pay referent

If a Local worker is taken as the preferred referent. In a context of foreign invested firms located in China, if a China returnee is paid an *intermediate* salary and takes a local worker (who is non-overseas experienced and on a local salary) as his/her preferred referent in Figure 1, he might see him/herself being *overpaid* in relation to this pay referent. However, according to Adams (1965), individuals often have an “egocentric bias” in evaluating distributive justice. Their threshold for detecting an overpayment inequity (“I am getting too much, for my inputs!”) is higher than that for underpayment (“I am getting too little, for my inputs”). An individual generally perceives higher fairness if an outcome is more favorable to the self and higher unfairness if an outcome is more favorable to the preferred referent.

Recent research on pay disparity between locals and expatriates in and across foreign-invested firms in China provides support for the existence of egocentric bias in Chinese contexts. A study based on a sample of local Chinese employees of international joint ventures (Chen et al, 2002), showed that the greater a local Chinese worker’s compensation advantage over other locals (i.e., pay outcome-to-input is more favorable to the self than to the preferred referent), the more he/she will perceive his/her compensation to be distributively just and equitable. Moreover, China returnees’ overseas experience might influence them to be more individualistic since most of them go to relatively *westernized* settings to get the overseas experience (which is either taught in the universities to students or socialized at work for employees as expatriated Chinese persons), and thus become susceptible to an egocentric bias. Therefore, I expect

an egocentric bias will occur for China returnees (expatriated beforehand as either student sojourners or workers overseas) who are paid an *intermediate* salary in the current study. From Figure 1, returnees whose preferred referent is a non-returnee local worker will not feel uncomfortable about being paid more than the non-returnee local counterpart within the same company.

On the other hand, the same egocentric bias would suggest that a China returnee who receives a *local* salary may indeed perceive distributive injustice, if he/she compares with a local worker (Figure 1). Overseas working experience and qualifications gained by study overseas are commonly treated by employers in China as more valuable and professional than domestic ones in China. In fact, under the same level of qualification and years of working experience, a China returnee is normally paid a higher salary than a local colleague (Sina Education, 2011). Hence, the China returnee may think that he/she is more valuable than the local worker (most people would think that they should be rewarded for working or studying overseas). A China returnee may view overseas experience as a legitimate “input,” to be matched by a higher “outcome” (e.g., salary), leading this returnee to think he/she should receive higher salary than the local worker (who is non-overseas experienced and on a local salary). Once the China returnee is offered a local salary (the same amount as the one offered to a local worker) that does not allocate any extra pay for working or studying overseas, he/she may view being underpaid, resulting in a sense of distributive injustice. Thus, I hypothesize the following:

Hypothesis 2: If a local worker who is on a local salary and has not been overseas-experienced (either through study or work sojourning), is taken as the preferred referent, China returnees who receive an intermediate salary will perceive higher distributive justice than those returnees who are locally-paid.

If an expatriate is chosen as the preferred referent. In the original study of the concept of relative deprivation (Stouffer, Suchman, DeVinney, Star, & Williams, 1949), researchers found that morale was paradoxically lower within higher-prospect of promotion groups rather than those groups where promotion prospects were low. The findings of this study were interpreted as people in the higher-prospect group having higher expectations of promotion (having raising expectations for promotion), the problem is that most of them cannot be promoted, leaving a sense of breached entitlement. Relative deprivation theory was then broadened to contexts where socioeconomic expectations were rising. More specifically, relatively small discrepancies are still seen as unjust, and such smaller discrepancies might even become more irksome and frustrating than larger differences all else being equal (Davis, 1959). This prediction was linked in controlled experiments (in Australia) to pay disparities between student groups (Carr, Hodgson, Vent & Purcell, 2005). Groups that were paid less than counterparts performing the same task were particularly demotivated when they were paid higher than the local majority but lower than an elite pay-group. However Carr et al (2005) focused on inter-group comparisons, not inter-individual ones, and this project will therefore focus on comparisons between preferred referent individuals (Figure 1).

An analogous process could occur in foreign invested firms in China, where China returnees offered an intermediate salary are typically paid higher than their local counterparts within the same company, but their salary is still less than that of expatriates. Therefore, they are middle-strata organization members amongst these three employee groups within the same company. Based on relative deprivation arguments, they will be more likely to see themselves as victims of a Distributive injustice if they choose mostly an expatriate as their preferred referent for pay comparisons (Figure 1).

On the other hand, although China returnees who receive a *local salary* might still perceive low distributive justice when taking an expatriate as their preferred referent, they may paradoxically become *less* frustrated and irksome than those returnees paid an intermediate salary which is monetarily higher. The reason for this phenomenon (more equals less) is that the salary disparity between expatriates and China returnees paid an intermediate salary is generally smaller than that of between expatriates and China returnees who receive a local salary, inviting an expectation that it the gap should be closed completely. According to both Davis (1959) and Carr et al (2005)'s arguments above, the smaller discrepancy is linked to higher injustice, because of rising expectations in the intermediate case but not in the local salary case. Festinger (1954) also suggested that feelings of deprivation may reduce when the gap between self and other becomes too large. Thus I hypothesize the following counter-intuitive prediction:

Hypothesis 3: China returnees paid an intermediate salary will perceive *lower* distributive justice than returnees who receive a local salary, when *an expatriate* is chosen as the preferred pay referent.

If a returnee colleague within the same company is taken as the preferred referent.

China returnees within the *same* firm are almost certainly working under one pay system rather than a mixture of two, i.e., they both receive local pay or they both receive intermediate pay, since no firm is likely to have discrepant remuneration for the same group. Hence, all China returnees working in the same firm are paid same type of salary for performing same tasks at the same level. In this case, they will receive their ratio of outcomes-to-inputs is equal to that of their returnee colleagues, and feel that distributive justice exists. Thus, for both intermediately and locally paid China returnee groups, regardless of their salary types, as long as they take another returnee colleague within the same company as the preferred referent for pay comparisons, they should perceive a sense of distributive justice (Figure 1), I expect:

Hypothesis 4: There will be *no difference* of perceived distributive justice between intermediately and locally-paid China returnees, when *a returnee colleague* within the same company is chosen as the preferred referent.

1.4. Distributive justice and employee attitudes (organizational commitment and turnover intention)

Recent research on distributive justice conducted in joint venture settings in China has consistently shown that local Chinese workers perceiving higher level of distributive *injustice* at work subsequently reported poorer sense of organizational commitment and higher levels of turnover intention as they compare their salaries to

that of foreign expatriates (Chen et al., 2002; Choi et al, 2007; Leung et al, 2001; Leung et al, 2009). However this research has focused exclusively on local workers paid a local wage, who have not travelled overseas. My own, new question in this research, therefore, is to explore if results obtained in the above studies can be replicated in the case of China returnees working in foreign investment firms in China (Figure 1).

The association between distributive justice and both organizational commitment and turnover intention in Figure 1 can be well explicated by *Equity theory* (Adams, 1965). Equity theory (Adams, 1965), with its roots in cognitive dissonance theory (Festinger, 1975), has suggested that the presence of inequity which arises when people perceive their outcomes-to-inputs to be unjust in relation to salient social referents' outcomes-to-inputs produces an unpleasant emotional state, e.g., distress or resentment. Such tension within individuals causes them to act to restore a sense of equity and to reduce the associated negative feelings. From the perspective of equity theory (Adams, 1965), behavioural withdrawal is one of the ways available to restore an equity, for example employees may think about withdrawing some of his/her input to reflect the comparatively low outcome (Admas & Rosenbaum, 1962; Griffeth Vecchio & Logan, 1989) or think about withdrawing from the job by turnover (i.e. *turnover intention* in Figure 1) (Cohen-Charash & Spector, 2001).

In addition to behavioural withdrawal reactions to perceived inequity, many studies have also revealed that employees might respond by psychological withdrawal, for example, by reducing their level of *organizational commitment* (in Figure 1) (e.g. Folger & Konovsky, 1989; Syroit, Lodewijkx, Franssen and Gerstel, 1993). Hence, I

believe the above arguments of equity theory provides a foundation for studying the association between distributive justice and work-related attitudes - organizational commitment and turnover intention, in the case of China returnees in the current study.

Social exchange theory (Blau, 1964) also can be used to demonstrate the relationship between distributive justice and both organizational commitment and turnover intention in Figure 1. From a social exchange perspective (e.g., Blau, 1964; Gouldner, 1960), individuals tend to feel they are obligated to reciprocate when fair outcomes are received. Thus, employees who perceive their organization are providing them with inequitable outcomes (e.g., less pay) are likely to view this as a violation of their “psychological contract” (defined as individual’s beliefs in a reciprocal obligation between the employer and himself/herself, that is, seek to keep his/her contributions and the employers' contributions relatively equitable) (Robinson, Kraatz, & Rousseau, 1994).

Such psychological contract breach is thought to lead to affect employees’ beliefs in the benefits of staying in the exchange relationship with the organization (Robinson et al, 1994; Rousseau, 1995). The more employees feel that they invested into the organization outweigh the benefits they received in return (i.e., outcomes-to-inputs), the less attached they will feel to the organization and therefore the more they will reduce their level of commitment with it (i.e., *organizational commitment* in Figure 1), or the more they will think about to withdrawal from the exchange relationship with their organization, i.e., *turnover intention* (Figure 1) (Folger et al, 1989). Moreover, previous research on organizational justice has already provided empirical support for low

organizational commitment and high turnover intention as the reactions to perceived injustice in organizations (e.g., Lind, and Tyler, 1988; Rutte and Messick, 1995). Hence in this project, I expect that China returnees who perceive distributive injustice regarding their type of salary will report low organizational commitment and more thoughts about turnover (Figure 1).

1.5. A possible mediating role for Distributive justice

In Figure 1, the selection of preferred referent is argued to interact with salary type to co-determine China returnees' perceptions of distributive justice salary (see Hypothesis 1). Meanwhile, China returnees' perceived distributive justice is proposed to significantly relate to both organizational commitment and turnover intention (see arguments in '*1.4. Distributive justice and employee attitudes*' section). This line of logic suggests that both China returnees' salary type and selection of preferred referent link to their attitudes – organizational commitment and turnover intention, through perceptions of distributive justice. Therefore, I propose the following:

Hypothesis 5: Preferred referent will interact with salary type to co-determine China returnees' organizational commitment *through* the perceptions of distributive justice.

Hypothesis 6: Preferred referent will interact with salary type to co-determine China returnees' turnover intentions *through* the perceptions of distributive justice.

Chapter 2

Method

2.1. Sample

One hundred and fourteen China returnees who were currently working with expatriates and local workers from 114 different foreign-invested firms located in the People's Republic of China participated in this study. This means that there was no level-2 variable from organization in which participants were employed.

Forty-one per cent ($n = 47$) of the sample had no *full-time* overseas professional work experience (i.e., they were international students who only had overseas study experience)³, Eleven per cent of the sample had worked overseas for 1-2 years, 26 per cent had worked overseas for 2-5 years, and 22 per cent had overseas professional work experience of over 5 years.

More than half of the entire sample of returnees comprising the sample (58%) at the time of the study occupied high-level positions in their firms: Six per cent of them were CEO (Chief Executive Officer) or a regional manager, 11 per cent were top management; 16 percent were working at present on a supervisory level; and 25 per cent were "department manager." And the rest were general staff members (42%).

³ Part-time work experience overseas is not included here. China returnees who had no full time professional work experience overseas means they were 'students overseas'; China returnees who had full time overseas professional work experience were 'workers overseas'. However, as ninety-five per cent of the sample had overseas qualifications, I did not divide participants into "students overseas" versus "worker overseas" because the distinction between them is actually the years of full time professional work experience overseas.

Forty-three per cent of the respondents were reportedly working at firms with more than 1000 employees.

Educational attainments. Qualifications across the sample as a whole spanned: bachelor degrees (44%), graduate certificates/graduate diplomas (18%), master's degrees (32%) and doctoral degrees (6%). Ninety-five per cent of these qualifications were obtained overseas (versus in China). Hence many of the returnees who had been workers when overseas had also, at some point beforehand, been students overseas.

Age and gender. Among the $N = 114$ participants, 51 per cent were male ($n = 58$). Fifty-six per cent of the respondents were in their 20s, 33 per cent in their 30s, 7 per cent in their 40s, and 4 per cent in their 50s. Hence, the numbers of male and female in the current research was quite balanced and most of the sampled China returnees were quite young.

2.2. Measures

All questions in a questionnaire, including general questions in Part 1 and measures in Part 2 (measures were initially written in and published in English), were originally prepared in English and then translated into Chinese from English by following Brislin's (1970) protocol of 'back-translation' (see Appendix 1). During the development of this questionnaire, the translation procedure used one competent bilingual translator – the researcher of this study (who is fluent in Chinese and English

and is also very familiar with the content involved in English materials) to do the translation work (i.e., translate the English version of questionnaire into Chinese). The translated Chinese version of the questionnaire was then translated back into English by another bilingual person who is a Psychology Masters student and also very fluent in both English and Chinese (Brislin, 1970). According to Brislin's protocol of 'back-translation,' these two bilingual translators did their translation work independently of each other. Once they had completed their tasks however, they compared the original English version of questionnaire with the back-translated version in order to recognize and reconcile any differences in meanings. Before making any changes to the Chinese version of questionnaire, the views of both translators need to reach an agreement. Hence, any difference in meanings were discussed by the above bilingual translators, changes had been made by using a more appropriate Chinese phrases/words which could accurately present the original English meanings.

Pilot testing was conducted with six Chinese returnees but they were not included in the sampling of this study. The researcher then had conversations with each of those participants after they completed the questionnaire. According to their positive feedback, the researcher was confident with the back-translated Chinese version of questionnaire, in terms of questions and instructions in each measure of this questionnaire were easy to understand and read, and the overall questionnaire was not hard to complete.

Questionnaire content – measures and items

Salary type. Participants were asked the amount of annual salary they received for their current job, as well as the amount of salary their local worker and expatriate (who are in same position performing similar tasks within the same company) received in Yuan (All returnees are paid in Chinese Yuan). Questions were:

- In your current job, what is the amount of annual salary you are receiving, in Yuan?
- Please estimate the amount of the annual salary an 1) local worker, 2) foreign expatriate and 3) returnee colleague is receiving in Yuan?⁴

According to the answers of above questions, the researcher could determine which type of salary the participants was receiving: a local salary (the amount of salary that local workers generally receive) or an intermediate salary (the amount of salary that is intermediate between a local and an international salary, normally 20% -50% higher than the local salary). For example, if a participant reported receiving ¥140,000 annually, and estimated the annual salary of his/her expatriate colleague was about ¥240,000 (international salary) and that their local colleague was receiving say about ¥100,000 (local salary), the researcher concluded that this participant was being paid an intermediate salary.

⁴ Clear definitions for each of the pay referents were given to the participants. A local worker is someone in your position performing similar tasks within the same organization but having neither an overseas qualification nor any overseas work experience; A foreign expatriate is someone in your position performing similar tasks and with similar years of work experience or qualification; A returnee colleague is someone in your position performing similar tasks within the same organization, and having similar overseas qualification and/or a similar amount of overseas work experience.

Preferred referent. The choice of preferred referent was measured using three questions by asking:

- How often do you compare your salary against 1) a local worker, 2) foreign expatriate and 3) returnee colleague from your current organization?

The highest frequency then indicated who the preferred referent was. The respondents answered three questions on a 5-point response scale ranging from 1 (never compare) to 5 (always compare). In the case of a tie (e.g., 2, 2, and 1), the participant would be excluded from the study. In this particular study, 5 people were therefore automatically excluded from all analyses, and the 114 participants came down to 109 for these analyses.

Distributive justice. Distributive justice was measured using five items from a distributive justice subscale developed by Niehoff and Moorman (1993). Those items were used to assess the degree to which an employee believed that his/her work outcomes were fair (i.e., pay level, work schedule, workload, rewards, and job responsibilities). A sample item is, 'I think that my level of pay is fair.' The remaining items are presented, in full, in Appendix 1. The respondents assessed each item on a 5-point response scale ranging from 1 (strongly disagree) to 5 (strongly agree), with 3 as the midpoint (neither agree nor disagree). The reliability (coefficient Alpha) for the scale of items was 0.92 from my dataset in the current study (see Table 1 in Chapter 3).

*Organizational commitment*⁵ was assessed using nine items originally developed in Mowday, Steers and Porter, 1982). A sample item is, ‘I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.’ Six items ($\alpha = 0.92$) from an existing study conducted by Carr, McWha, MacLachlan and Fumham (2010) were used to assess *turnover intention*. A sample item is, ‘I think about leaving this organization.’ Similar to the distributive justice scales, a five-point Likert-type scale was used for organizational commitment and turnover intention. The reliability (coefficient alpha) for each of these two scales of items was calculated from the present sample in this research.

Social desirability. Social desirability was also tested as it might be a problem in any self-report methodology. It was measured by using the Strahan-Gerbasi (1972) Social Desirability Scale which has been widely used in social science literature (e.g., Bush, Rose, Gilbert, & Ingram 2001; Faranda, 2001). In order to be consistent with other measures, small changes were made to these social desirability items. Specifically, they were scored on a 5-point Likert-type scale, instead of using a binary “True/False” format.

⁵ Organizational commitment is recognized as a multidimensional concept composed of continuance, affective, and normative commitment (Meyer & Allen, 1991). However, in this particular study, only two components of organizational commitment were measured: affective and normative commitments. This choice was made for the following reason. The model in Figure 1 was most interested in people’s choice, and both affective and normative commitments are freely chosen commitments. For example, as affective commitment is defined as the employee’s positive emotional attachment to the organization, means an employee commits to the organization because he/she “wants to”. In terms of normative commitment, it refers to individual commits to and remains with an organization because of feelings of obligation (this feelings of obligation will be compromised if receiving injustice which has been explained by Social Exchange Theory in Chapter 1 – 1.4). However, for continuance commitment, a person commits to the organization because he/she perceives a high cost of losing organizational membership (i.e. people stay because they have to).

With the exception of the turnover intention measure (which was employed by Zhou et al, 2010), none of these attitudinal measures has to this author's knowledge been applied in the Chinese contexts, suggesting suitability for exploratory over confirmatory factor analysis to check the structures of the measures in the current study. For consistency purposes, an exploratory approach was therefore also adopted with respect to the turnover intention measure.

2.3. Procedure

Prior to conducting the current research, ethical approval was sought and approved by Massey University Human Ethics Committee: Northern (Approval Number: MUHECN 11/066). The questions related to the current study were embedded in an online questionnaire, which was then posted on <http://www.sojump.com/> (it is the most popular online survey tool in China).

Ten qualified participants⁶ were first collected as the initial participants through different channels, e.g., China returnees recommended by some friends of the researcher; China returnees recruited from a business-related professional network site (<http://www.linkedin.com/>) by posting an advertisement of the current study that briefly introduced the researcher and the purpose of this study (see Appendix 2) on this

⁶ The term 'qualified participant' refers to a China returnee who meets the following criteria: 1) "Highly skilled" (defined as Bachelors degree or above, and/or with significant experience in a knowledge profession), 2) working inside China and in a foreign invested firm, 3) self-initiated (i.e. not on expatriate assignments), and 4) have been working and living in China *no* more than 2 years since he/she returned (i.e. still in a phase of re-entry).

network site. The web address of this questionnaire was provided to these initial participants, and they could take this online survey anywhere and anytime as long as they had internet access.

Participants were informed by the information sheet (see Appendix 3) that if they decided to participate, the completion of the online questionnaire would be taken as informed consent in this research. They were also told that their individual responses are anonymous and the data collected was going to be treated confidentially. The researcher's e-mail address was available on this online information sheet, and respondents were informed that they could contact the researcher to receive a summary of the findings once the research was completed, or discuss any issue or question they wanted to ask regarding this research project.

When the respondents completed the questionnaire, they simply closed their internet browser to log off, and the results of the questionnaire were automatically saved online for the researcher. By the end of this online survey, all respondents were asked to do a favor for the researcher, that is, to recommend this online questionnaire to other Chinese returnees they may know (who also meet the criteria for participation but from different organizations). More participants were therefore recruited through those initial participants' connections. Hence, the procedure used for collecting participants in this research was a snowball sampling, and all $N = 114$ (the original number of participants before any exclusion had made for the analyses) China returnees were collected by using this particular method.

Chapter 3

Results

3.1. Data reduction – Protocol

Three major measures (distributive justice, organizational commitment and turnover intention) plus a social desirability measure were used in this study. The Kaiser-Meyer-Olkin statistic of sampling adequacy and Bartlett's test of Sphericity were used in an Exploratory Factor Analysis process to assess factorability. I followed a protocol in Thompson (2004). As I aimed to explore underlying constructs, factor analysis was chosen over principal components. I used principal axis factoring over other extraction methods, such as maximum likelihood, because the former makes fewer distributional assumptions. I used a Scree test to determine number of factors extracted and oblique rotation to allow for the predicted factor inter-correlation because this rotation method should theoretically render a more accurate solution (Costello & Osborn, 2005). Following DeVellis (2003), I eliminated items that did not load on any factor (i.e., loadings below .30), items that significantly cross-loaded ($>.30$) on more than one factor with a difference less than .20, and items that loaded as the only item on a factor. A reliability analysis for each extracted factor was applied and items that had much poorer inter-correlations than the others, as measured by Coefficient Alpha rising for each factor (rather than falling) if an item was deleted, were deleted (DeVellis, 1993). The entire protocol was applied iteratively until a satisfactory factor solution was reached (defined in terms of each item significantly loads on its corresponding factor

(>.30) without any cross-loading on more than one factor with a difference less than .20, and there are at least two items significantly load on a factor). Initially I ran each factor check separately for each measure, due to power considerations (see below). The solutions are presented in Table 1.

Table 1
Exploratory factor solution for major variables and covariate (loadings < .30 suppressed)

	Factor loading
	($\alpha = .92$; variance explained = 76%)
<i>Factor 1: Distributive justice</i>	
I feel that my work schedule is fair	.89
I think that my level of pay is fair	.88
I consider my current workload to be quite fair	.74
I feel that my job responsibilities are fair	.82
Overall, the rewards I receive here are quite fair	.82
	($\alpha = .91$; variance explained = 60%)
<i>Factor 2: organizational commitment</i>	
I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful	.71
I talk up this organization to my friends as a great organization to work for	.81
I find that my values and the organization's values are very similar	.75
I would accept almost any types of job assignment in order to keep working for this organization	.62
This organization really inspires the very best in me in the way of job performance	.68
I am extremely glad that I chose this organization to work for over others I was considering at time I joined	.79
I really care about the fate of this organization	.75
For me, this is the best of all possible organizations for which to work	.77
I am proud to tell others that I am part of this organization	.75
	($\alpha = .92$; variance explained = 72%)
<i>Factor 3: Turnover intention</i>	
I feel like leaving this organization	.85
I think about leaving this organization	.87
I wish I could leave this job	.78
I wish I could leave this organization	.87
I feel like leaving this job	.82
I think about leaving this job	.70
	($\alpha = .49$; variance explained = 40%)
<i>Factor 4: Social desirability</i>	
I have never been annoyed when people at work expressed ideas very different from my own	.36
I have never deliberately said something at work that hurt someone's feelings	.67
At times I have really insisted on having things my own way at work	.34
I always try to practice what I preach at work	.46

From Table 1, For each of the major variables presented in Figure 1, i.e., Distributive justice, Organizational commitment, and Turnover intention, only one factor was extracted from its corresponding measure, each with high value of KMO (0.89, 0.90 and 0.80, respectively) and significant Bartlett's test of Sphericity ($p < .001$). No item was deleted from its corresponding measure, as the communalities for any single item from its measure were all above the minimum value of .30, ranging from .44 to .85 (Costello et al., 2005). The percentages of variance explained for each factor were 77%, 61%, and 72%; respectively. Coefficients Alpha for the Distributive justice, Organizational commitment and Turnover intention measures were 0.92, 0.91, and 0.92, respectively.

Social desirability measure. Four factors were initially extracted for the 10-item social desirability measure when I first ran an Exploratory Factor Analysis. The measure is theoretically supposed to have one factor solution (Strahan-Gerbasi, 1972). The value of KMO was 0.54 with a significant Bartlett's test of Sphericity ($p < .001$). I applied the protocol described above and obtained a one-factor solution with four surviving items retained (KMO = 0.62 and Bartlett's test of Sphericity was significant, $p < .001$). Each of the three items had communality $\approx .30$; they were retained as their factor loadings were significant (using the Burt-Banks Formula, Child, 1979, p. 97). I checked factor reliability, Alpha decreased when I removed any of the surviving items, indicating they should be kept in the measure. The percentage of variance explained by this one factor was 40% (Table 1). The final Coefficient Alpha for social desirability

was 0.49, which is low. However, since Alpha shrinks with few items, it is acceptable to have $\alpha = 0.49$ in this research when only 4 items were included here. Reduced items were then computed into mean scores per item, per factor. The factor solution for social desirability measure is presented in Table 1.

In the current research, after the above analyses were conducted, there were now $N = 109$ participants and 24 surviving items in total (20 of them from measures of distributive justice, organizational commitment and turnover intention, plus 4 social desirability items). The subjects-to-variables ratio was 4.7: 1, which however was less than the minimum value of 5 (Bryant & Yarnold, 1995). Hence, there was not sufficient power to run one overall full Exploratory Factor Analysis with all variables together in the current study.

Nonetheless, a basic check for common method variance was deemed necessary. Harman's single-factor test was conducted in which all the major variables of interest (i.e., distributive justice, organizational commitment, turnover intention and social desirability) were entered into an Exploratory Factor Analysis. According to Harman, if a general factor emerges to account for a majority (> 50%) of the covariance between the measures, it suggests the presence of a substantial amount of common method variance (Podsakoff & Organ, 1986). In my test, a first factor accounted for 48.1% of the overall variance, indicating it could not explain a majority of the variance. Thus, Harman's single-factor test suggests that common method variance was not a significant concern in the current study. However since the percentage of variance was close to 50%, some common method variance remains a possibility (see Discussion).

3.2. Descriptive statistics and correlations between mean scores per item per factor

Table 2 reports the correlation coefficients⁷ between major model variables (distributive justice, organizational commitment and turnover intention) and other individual demographic variables (age, gender, education, years' of overseas professional work experience and social desirability).

Firstly, it is necessary to be aware of possible collinearity in such a matrix. In Table 2, there were three relatively-high inter-correlations between three major variables - distributive justice, organizational commitment and turnover intention (0.8, -0.7 and -0.7). When multiple correlation coefficients are greater than 0.8, there may be a serious collinearity problem posing the inflated risks of type II error (Field, 2005). Thus according to Field (2005), because none of the correlations in Table 2 are greater than 0.8, collinearity is not a significant concern.

⁷ *p*-value (α) for correlation coefficient in Table 2 was adjusted to **0.005** by applying a Bonferroni correction. The Bonferroni correlation is used for multiple comparisons to reduce the risk of Type I error (Type I error = falsely accepting an effect is present when it is not/ falsely rejecting the null hypothesis). The *p* value needs to be lowered to account for the number of comparisons being performed. In the current study, as 10 comparisons were performed, the new critical *p* value would be $\alpha/10 = 0.005$. Therefore, one asterisk in table 1 means that the probability is **.005**.

Table 2
Correlation Matrix of Major Variables

	1	2	3	4	5	6	7	8	9	10
1. Gender	-									
2. Age	.23	-								
3. Education	.03	.10	-							
4. overseas professional work experience ⁸	.062	.24	.05	-						
5. Salary type	-.05	.16	-.05	.31**	-					
6. Preferred referent	-.10	-.05	.02	-.02	-.06	-				
7. Distributive justice	.06	.04	-.01	.10	.13	.24	-			
8. Organizational commitment	.04	.01	.04	.03	.09	.15	.80**	-		
9. Turnover intention	-.02	-.03	-.09	-.10	-.14	-.23	-.70**	-.70**	-	
10. Social desirability	-.14	-.04	.02	0.00	-.03	.02	.27*	.25	-.20	-

Note: The coding scheme was follows:

Gender: 0 = female, 1 = male;

Education: 1 = bachelor degree, 2 = graduate certificates/graduate diplomas, 3 = master degree, 4 = doctorate;

Salary type: 0 = local salary, 1 = intermediate salary;

Favorite referent: 1 = local worker, 2 = expatriate, 3 = returnee;

Overseas professional work experience: 0 = none overseas professional work experience, 1 = fewer than 2 years,

3 = greater than or equal to 2 years but fewer than 5 years, 3 = 5 years and above;

$N = 109$; * $p < 0.005$; ** $p < 0.001$

Thirdly it is necessary to check for social desirability. A Positive correlation between social desirability and sense of distributive justice was found ($r = .27, p < .005$), indicating that the more people said they felt justice, the more they were lying or doing impression managing. Hence, social desirability was considered as a covariate which needs to be statistically controlled for any analysis in which distributive justice is

⁸ If a China returnee has none overseas professional work experience, it means this person only has overseas *study* experience, i.e., student overseas. As explained in 'Method – 2.1. Sample', sampled China returnees were not divided into "students overseas" versus "worker overseas" since the distinction between them can be the years of full time professional work experience overseas.

involved (i.e., for both moderation and mediation tests) since it may have had an effect on distributive justice (Figure 1).

In addition, from Table 2, years of overseas professional work experience correlated positively with the main antecedent variable - salary type ($r = .31, p < .001$): The more overseas professional work experience a China returnee had, the more likely he/she would receive an intermediate salary. Therefore, years' of overseas professional work experience could be a salient human capital variable that indirectly (through perceived justice) impacted China returnees' organizational commitment in the current research. Those with higher professional work experience overseas may have tended to be those with intermediate salaries. Since this thesis tests for the effects of salary type in *itself*, I felt it is important to make "all else being equal" including human capital, thus work experience overseas was entered as another covariate in this research.

3.3. Central Tendencies

A table of mean distributive justice scores (including both raw and corrected means) for China returnees from different groups of salary type (local/intermediate) and preferred referent (local worker/foreign expatriate/returnee colleague) are presented in Table 3.

Table 3
Mean distributive justice by categories of Salary Type and Preferred Referent

Preferred Referent	Salary Type		Total
	Local	Intermediate	
Local worker	2.61 <i>(2.64)</i>	3.53 <i>(3.49)</i>	3.11 <i>(3.07)</i>
Foreign expatriate	2.33 <i>(2.36)</i>	1.77 <i>(1.80)</i>	2.05 <i>(2.08)</i>
Returnee colleague	3.62 <i>(3.63)</i>	3.85 <i>(3.79)</i>	3.72 <i>(3.71)</i>
Total	2.85 <i>(2.88)</i>	3.05 <i>(3.02)</i>	2.96 <i>(2.95)</i>

Note: Italics denote corrected means, if different from raw means. Effects of statistically significant covariates have been partialled out.

From Table 3, the row marginal means (2.88 vs 3.02) show that China returnees who were intermediately paid generally reported higher levels of distributive justice than those received a local salary. Moreover, the column marginal means (3.07 vs 2.08 vs 3.71) suggest that China returnees' perceived distributive justice was 1) lowest when they chose a foreign expatriate as their preferred pay referent, and 2) highest when taking other returnee colleague as the major reference point.

In Table 3, taking the first two rows, intermediate salaries appear to result in *more* distributive justice being reported than local salaries, if the comparison other is a local worker; but when the preferred referent is an foreign expatriate, China returnees paid an intermediate salary tended to report *lower* levels of distributive justice than those received a local salary. This reversal of trends (simply from one preferred referent to another) suggests that the benefits of receiving an intermediate salary may have been

compromised if the preferred referent was an internationally-paid expatriate. In other words, the nature of the association between salary type and distributive justice may have differed according to the choice of preferred pay referent (i.e., an interaction effect).

3.4. Testing Hypothesis 1-4: Relationships among Salary type, Preferred referent, and Distributive justice.

A 2x3 Analysis of covariance (ANOCOVA) was employed to test Hypothesis 1, 2, 3 and 4, which from Figure 1 concerned relationships between Salary type, Preferred referent and perceived Distributive justice. Tests of homogeneity showed that the variances within each group were not unequal ($p > .05$), indicating that the assumption of homogeneity of variance for ANCOVA was met. The covariates/control variables were social desirability and years of overseas professional work experience. The independent variable was salary type (local vs intermediate), the moderator was preferred pay referent (local worker, foreign expatriate, returnee colleague) and the dependent factor was perceptions of distributive justice. Results are presented in Table 4.

Table 4
Results of 2-way ANCOVA on salary type and preferred referent (after controlling for both control variable and covariate)

Effects	Sum of squares	<i>df</i>	Mean square	F value	Partial Eta squared
Overseas professional work experience	.63	1	.63	1.89	.02
Social desirability	1.45	1	1.45	4.35*	.04
Salary type (A)	.54	1	.54	1.61	.02
Preferred referent (B)	46.47	2	23.23	69.7***	.58
Salary type x Preferred referent (A x B)	9.11	2	4.55	13.66**	.21
Error	33.67	101	.33		

Note: * $p < 0.5$; ** $p < 0.01$; *** $p < 0.001$

From Table 4, social desirability was found to be significantly correlated to perceptions of distributive justice whilst overseas professional work experience was not. More feelings of distributive justice was associated with more social desirability (i.e., the more the China returnees reported distributive justice, the more they may have been managing impressions), suggesting that sampled China returnees may have been exaggerating the linkages (between distributive justice and both salary type and preferred referent) tested in the current research.

From table 4, After controlling for any tendency to over-report justice at work, salary type in itself did not produce any main effect on Distributive justice ($F(1, 101) = 1.61, p > .05, \eta^2 = .02$).

On the other hand, Table 4 also indicates a clearer effect of preferred referent on Distributive justice for Preferred referent ($F(2, 101) = 69.7, p < .001, \eta^2 = .58$). From Table 4, China returnees' perceived distributive justice largely depended significantly on their choice of preferred pay referent, with choice of referent of an foreign expatriate

being linked to the lowest levels of distributive justice, whilst choice of other returnee colleagues was linked to the greatest feelings of distributive justice.

Crucially, Table 4 also shows a significant interaction between salary type and Preferred pay referent ($F(2, 101) = 13.66, p < .01, \eta^2 = .21$), China returnees' choice of preferred pay referent (local worker/foreign expatriate/returnee colleague) interacted with their salary type (intermediate/local) to together determine the level of perceived distributive justice. Thus, Hypothesis 1 - China returnees' choice of preferred pay referent interacted significantly with their salary type to together determine the level of perceived distributive justice, was supported.

To explore the precise nature of this statistically significant interaction (to determine the pattern of the interaction), we need to compare the simple effects.⁹ To describe each simple effect, the cell means must be compared. There were 6 possible combinations of categories presented as 6 cell means (which were provided by a 2 x 3 ANCOVA) to show what happens when salary type and choice of preferred referent are combined (i.e. the interaction effect of salary type and preferred referent on distributive justice). Those 6 cell means are plotted in Figure 2¹⁰.

⁹ The term "simple effects" refers to the effect of one group of the Independent variable at one group of another Independent variable.

¹⁰ There were $n = 21$ participants in the category of 'intermediate salary/local worker', which means the number of intermediately paid participants who took a local worker as their preferred referent was 21. In the same vein, there were $n = 18$ participants in the category of 'local salary/local worker'; $n = 18$ participants in the category of 'intermediate salary/expatriate'; $n = 18$ participants in the category of 'local salary/expatriate'; $n = 16$ participants in the category of 'intermediate salary/returnee colleague'; $n = 18$ participants in the category of 'local salary/returnee colleague'.

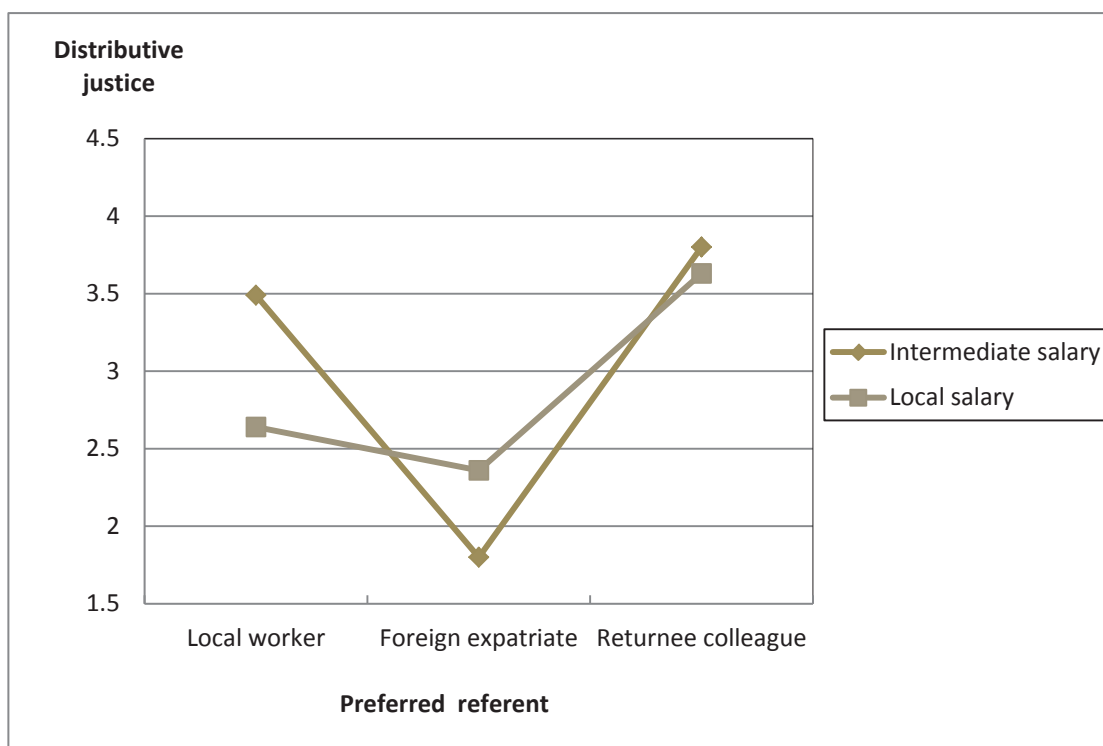


Figure 2 – Interaction effect of salary type and preferred referent on distributive justice (after controlling for both control variable and covariate, which were years of overseas professional work experience and social desirability)

Hypothesis 2 predicted that China returnees paid an intermediate salary would perceive higher distributive justice than returnees who receive a local salary, when a *local worker* on a local salary was chosen as the preferred pay referent. To evaluate Hypothesis 2, two cell means were compared: ‘Intermediate salary/Local worker’ and ‘Local salary/Local worker’ (compare the vertical gap between these two cell means), and the value of F -test¹¹ was used to see whether the difference between these two group means were significant or not (i.e., simple effect). From Figure 2, the mean level

¹¹ F -tests are used to exam the significance of the simple effects, and those F – tests used in Figure 2 are based on the linearly independent pairwise comparisons among the estimated marginal means (i.e. cell means).

of distributive justice was significantly higher among intermediately paid China returnees than those who received a local salary, when a local worker (i.e., someone in the same firm who had never been overseas) was taken as the preferred pay referent ($M = 3.49$ vs 2.64 , $F(1,101) = 19.61$, $p < 0.001$, $\eta^2 = .16$). Thus, Hypothesis 2 was supported.

To evaluate Hypothesis 3 – “China returnees paid an intermediate salary will perceive lower distributive justice than those who received a local salary, when their choice of preferred referent was a *foreign expatriate*”, another pairwise comparison was made between two cell means: “Intermediate salary/Foreign expatriate’ and ‘Local salary/Foreign expatriate’ (see Figure 2). The result of F -test indicates that the mean level of distributive justice was significantly lower among intermediately paid China returnees than those who received a local salary, when the main reference point was a foreign expatriate ($M = 1.80$ vs 2.36 , $F(1, 101) = 8.17$, $p < 0.01$, $\eta^2 = .08$). Hence, Hypothesis 3 was supported.

Moreover, comparison between two cell means – ‘Intermediate salary /Returnee colleague’ and ‘Local salary/Returnee colleague’ in Figure 2, shows no difference in the levels of distributive justice was found between intermediately and locally paid China returnees, when a returnee colleague within the same company was the major reference point ($M = 3.79$ vs 3.63 , $F(1, 101) = .63$, $p = .43$, $\eta^2 = .01$). Thus, Hypothesis 4 was supported.

3.5. Testing Hypothesis 5: Does Distributive justice mediate the relationship between Salary type and Organizational Commitment?

Hypothesis 5 predicted that China returnees' preferred referent would interact with salary type to co-determine the level of distributive justice, which would link to organizational commitment. Hence a full mediation role for Distributive justice was tested (See Figure 1).

Testing for mediation normally requires regression. As there was an interaction relationship between salary type and preferred pay referent (both are categorical variables), product terms needed to be created in any mediation testing. Because product terms cannot be meaningfully created with binary variables, I split the data analysis into three referent groups, namely local worker, expatriate and returnee¹². I conducted a separate mediation analysis on each preferred referent group, following the procedure in Baron and Kenny (1986). Both social desirability (covariate) and overseas professional work experience (control variable) were statistically controlled covariates through the whole process of mediation testing.

According to Baron and Kenny (1986), three conditions must be met for mediation. These three conditions included: 1) the predictor must predict significantly to the criterion variable; 2) the predictor must be significantly associated with the mediator; 3) the mediator must significantly predict the criterion variable.

¹² There were $n = 39$ participants took a local worker as the preferred pay referent; $n = 36$ participants chose an expatriate as the preferred pay referent; and $n = 34$ participants used mostly a returnee colleague as the preferred pay referent.

The results of following these steps for mediation testing in hypothesis 5 are presented in Table 5.

Table 5
Mediation relationship of salary type on organizational commitment through distributive justice (after controlling for covariate and control variable)

	Predictor - Criterion variable (Salary type – organizational commitment)			Predictor – Mediator (Salary type – distributive justice)			Mediator - Criterion variable (Distributive justice – organizational commitment)		
	<u>Condition 1</u>			<u>Condition 2</u>			<u>Condition 3</u>		
	β			β			β		
Referent group	Salary type	Social desirability	Overseas professional work experience	Salary type	Social desirability	Overseas professional work experience	Distributive justice	Social desirability	Overseas professional work experience
Local worker	.43*	.24	-.01	.52**	.26*	.16	.75***	.05	-.11
Expatriate	-.15	.21	-.01	-.41*	.15	.11	.75***	.07	-.05
Returnee colleague	.39*	-.02	-.01	.19	.20	.11	.61***	-.14	-.00

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$;
Coefficients (β) in the table are standardized.

LOCAL REFERENT: Salary type – Distributive justice – Organizational commitment

From Table 5, for China returnees who took a local worker as their preferred referent for salary comparisons, after controlling for both social desirability and overseas professional work experience, salary type was found to significantly predict China returnees’ organizational commitment ($\beta = .43, p < .05$). Thus, the first condition for mediation proposed by Baron and Kenny was satisfied (salary type – organizational commitment). Furthermore, Table 5 shows that as social desirability and overseas

professional work experience was controlled for, salary type significantly correlated to distributive justice ($\beta = .52, p < .01$), thus the second condition for mediation was met. Distributive justice then was also found to significantly predict China returnees' organizational commitment ($\beta = .75, p < .001$), indicating the third condition was satisfied.

According to Baron and Kenny, if a significant predictor becomes non-significant when a third variable (mediator) is added, the relationship between the predictor and the criterion variable is fully mediated by the third variable (mediator). On the other hand, if the predictor remains significant but its regression coefficient is much smaller after entering a mediator, then partial mediation is indicated.

In this current study, after adding distributive justice, salary type became non-significant ($\beta = .05, p = .74$). Therefore, I concluded that distributive justice fully mediated the relationship between salary type and organizational commitment, when a local worker was the preferred pay referent.

Following advice in MacKinnon, Lockwood, Hoffman, West, and Sheets (2002), I also tested the significance of the indirect effects of salary type on organizational commitment via perceived distributive justice (when a local worker was taken the preferred referent) with a test design by Sobel (1982). The Sobel test is a method used to check the significance of a mediation effect¹³. The result of the test confirmed that

¹³ The criteria of mediation testing procedures proposed by Baron and Kenny (1986) can be used to informally assess whether or not mediation occurs. However, MacKinnon, Warsi, & Dwyer (1995) popularize statistically based methods by which mediation can be formally judged. Sobel test (1982) is much more common and more highly recommended method of formally testing the significance of a mediation effect (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002).

the indirect effects of salary type ($z = 2.43, p < 0.05$) on organizational commitment (when a local worker was the preferred pay referent) was significant.

EXPATRIATE REFERENT: Salary type – Distributive justice – Organizational commitment

By following the same mediation testing procedure, however, for those participants whose preferred referent was an expatriate in the same company, salary type did not significantly predict organizational commitment, i.e. the first condition was not satisfied ($\beta = -.15, p = .49$). Once any of the three mediation conditions was not satisfied, further testing procedure for mediation would be stopped. Hence, I concluded that distributive justice did not mediate anything when the preferred pay referent was a foreign expatriate.

RETURNEE REFERENT: Salary type – Distributive justice – Organizational commitment

For China returnees who compared their salaries with a returnee colleague, salary type was found not significantly predict their perceptions of distributive justice, indicating the second condition was not met ($\beta = .19, p = .44$). Thus, distributive justice did not mediate the relationship between salary type and organizational commitment, when a returnee colleague was the preferred pay referent.

Summing up, distributive justice was found to fully mediate the relationship between salary type and organizational commitment, but only when the preferred pay referent was a local worker. Thus Hypothesis 5 was only *partially* supported.

3.6. Testing Hypothesis 6: Does Distributive justice mediate the relationship between Salary type and Turnover intention?

To evaluate Hypothesis 6, which predicts that the selection of preferred referent will interact with salary type to determine China returnees' turnover intention through the perceived distributive justice, I applied the same procedure to test for mediation as I did for Hypothesis 5.

Table 6
Mediation relationship of salary type on turnover intentions through distributive justice (after controlling for covariate and control variable)

	Predictor - Criterion variable (Salary type – turnover intention)			Predictor – Mediator (Salary type – distributive justice)			Mediator - Criterion variable (Distributive justice – turnover intention)		
	<u>Condition 1</u>			<u>Condition 2</u>			<u>Condition 3</u>		
	β			β			β		
Referent group	Salary type	Social desirability	Overseas professional work experience	Salary type	Social desirability	Overseas professional work experience	Distributive justice	Social desirability	Overseas professional work experience
Local worker	-.34*	-.26	-.15	.52**	.26*	.16	-.49**	-.14	-.10
Expatriate	.17	-.02	-.05	-.41*	.15	.11	-.38*	.04	-.01
Returnee colleague	-.19	-.12	-.05	.19	.20	.11	-.25	-.07	-.07

Note: * $p < 0.05$; ** $p < 0.01$;

Coefficients (β) in the table are standardized.

LOCAL REFERENT: Salary type – Distributive justice – Turnover intention

From Table 6, for China returnees who took a local worker as their preferred referent for salary comparisons, after controlling for both social desirability and overseas professional work experience, *salary type* was found to significantly predict China returnees' turnover intention ($\beta = -.34, p < .05$), therefore, the first condition for mediation was satisfied. Similarly, *salary type* was found to significantly correlated with distributive justice ($\beta = .52, p < .01$) and *distributive justice* significantly predicted turnover intention ($\beta = -.49, p < .01$), indicating both second and third conditions for mediation were met. Salary type became non-significant ($\beta = -.12, p = .52$) after adding distributive justice (the third variable – mediator), suggesting there was a full mediation (Baron & Kenny, 1986). However, when a Sobel test was used to check the significance of this mediation effect, the result showed that the indirect effects of salary type ($z = -1.81, p < 0.07$) on turnover intention (when the choice of preferred referent is a local worker) was *borderline* significant¹⁴, rather than plain non-significant.

Summing up, distributive justice did not significantly mediate the relationship between salary type and turnover intention when the choice of preferred referent is a local worker, although there were indications of a possible linkage (see Discussion).

¹⁴ In exploratory research (e.g., Grimm, 1991), it has been argued that 0.10 may be a more appropriate significance level than 0.05, to avoid type II error (dismissing a linkage which may actually turn out to be there).

EXPATRIATE REFERENT: Salary type – Distributive justice – Turnover intention

For China returnees who compared their salaries with a foreign expatriate, salary type was found not significantly predict turnover intention, indicating the first condition was not met ($\beta = .17, p = .35$). Hence, distributive justice did not have a full mediating role.

RETURNEE REFERENT: Salary type – Distributive justice – Turnover intention

By following the same mediation testing procedure proposed by Baron and Kenney (1986), however, for those participants whose preferred referent was a returnee colleague in the same company, salary type did not significantly predict turnover intention and distributive justice ($\beta = -.19, p > 0.05$). Thus, the first mediation condition was not met, suggesting distributive justice did not mediate anything when the preferred pay referent was a returnee colleague.

In summary, there was no complete mediation relationship between salary type and turnover intention for any of the referent groups (local worker, foreign expatriate and returnee colleague), thus Hypothesis 6 was *not* supported.

Chapter 4

Discussion

4.1. Summary of the Results

The current research discovered that the levels of distributive justice of China returnees who paid intermediately were not significantly higher than that of those who received a local salary (i.e., no significant difference), suggesting that the offering of intermediate salaries (the salary advantage over local workers in the same company) did not always bring a significant motivational advantage and positive results. Instead, this research found that sampled China returnees whose main reference point was a local worker felt more on distributive justice when they received an intermediate salary; but for those whose preferred pay referent was an expatriate, being offered an intermediate salary was linked to reduced distributive justice compared to paying a local salary. No difference on distributive justice occurred between locally and intermediately paid returnees, when the participants preferred a returnee colleague in the same company (whose salary was always identical to their own, regardless of its type). Overall, it supported Hypothesis 1 that the levels of distributive justice were determined by both salary type and the choice of preferred referent.

In addition, China returnees' perceptions of distributive justice were found to fully mediate the relationship between their salary type and the sense of organizational commitment, but only for returnees whose main point of reference was a local worker. For those who took an expatriate or returnee colleague as their preferred referent for pay

comparisons, no mediation relationship occurred. On the other hand, regardless of returnees' choice of preferred pay referent, distributive justice did not mediate the relationship between their salary type and the level of turnover intention.

4.2. Links to Theory

The data in this research supported Equity theory (Adams, 1965). First, when China returnees' own outcomes-to-inputs ratio (outcomes was defined as the salary type they received in the current study and inputs refers to overseas experience) was equal to their preferred comparison referent, a perception of distributive justice occurred (this is supported by the result of Hypothesis 4). Secondly, result of H2 indicated that for returnees who received the same amount of salary as their preferred pay referent – a local worker, still perceived a sense of distributive injustice. This result was, in fact, consistent with Adams' additional arguments to Equity theory, that is, individuals' threshold for *perceived* overpayment inequity is higher than that for *perceived* underpayment, which can be explained by an 'egocentric bias'. In fact, the finding of Hypothesis 2 was the result of *unequal* ratios between China returnees and the local workers, because overseas experience may be seen as a legitimate "input", to be matched by a higher "outcome". When outcomes (i.e. salary type) were the same for returnees and locals, the returnees felt *injustice* for the completion of extra input (overseas experience). Overall, these findings of Hypothesis 2 and Hypothesis 4 as a whole were consistent with equity theory.

Hypothesis 3 – “China returnees paid an intermediate salary perceived lower distributive justice than those who receive a local salary when an expatriate was taken as the preferred referent”, was supported in the current research. This pattern was consistent with Relative deprivation theory, which predicts that relatively small discrepancies will still be seen as injustice and even becomes more frustrating than a larger difference/ratio (Davis, 1959). However, this type of finding in current study was inconsistent with (i.e. contrary to) the observations made in a study undertaken by Zhou et al, 2010 (whose study had also used relative deprivation theory to examine the effects of small remuneration differences on employee attitudes). In Zhou et al, 2010, the smaller ratio between international and local remuneration from a Chinese sample resulted in a significantly lower level of organizational justice than the larger ratio from an Indian sample. One possible reason for the different findings between my research and Zhou et al (2010)’s study is that in their study participants were sampled from two countries. Thus, there is the possibility that by using different samples from two countries the results of the study may be influenced by cultural differences between Chinese and Indian people, this may impact participants’ attitudes towards their remunerations even in a very similar situation (paid less than the expatriate colleagues).

The mediating influences of distributive justice were found in this research, that is, participants’ organizational commitment was determined by their type of salary through their perceived distributive justice. It supported the line of logic - “salary type and preferred referent together determine the levels of distributive justice while distributive justice determines organizational commitment, and therefore distributive justice has the

mediating role”. However, the mediation relationship between salary type and organizational commitment only occurred for returnees who chose a local worker as their preferred pay referent. When participants took a returnee colleague as their main point of reference, distributive justice did not mediate the relationship between salary type and organizational commitment. It would be due to the result found in Hypothesis 4: there was no difference of distributive justice between intermediately and locally paid participants (i.e., regardless of their salary types, sampled returnees always perceive a sense of distributive justice). Thus, the full mediation of distributive justice, of course, would not exist. Furthermore, for returnees who looked to foreign expatriates as a main reference point, the mediating influence of distributive justice was not found. One possible reason for this result could be that these individuals were less concerned with justice but more concerned with self-progress. If distributive justice did not figure in their thoughts, it then was not a salient standard for them. Thus they may just be competitive, upwardly mobile, and ambitious, etc. (none of which is really about distributive justice).

Unexpectedly, the result of this current research showed that sampled returnees’ distributive justice did not mediate the relationship between their salary type and the level of turnover intention. More precisely speaking, a borderline mediation (the indirect effects of salary type on turnover intention was *borderline* significant, rather than plain non-significant) was found between salary type and turnover intention when a local worker was the preferred referent. One possible reason is that the sample size ($N = 109$) of this research did not have sufficient statistical power to detect the mediation

effects of distributive justice (although it was very close to $p < 0.05$) when the preferred referent was a local worker. Furthermore, Geurts, Schaufeli and Rutte (1999) found that turnover intention was indirectly related to perceived inequity in the exchange relationship with the organization, instead it is actually mediated by feelings of poor organizational commitment. Results of this study suggest that levels of organizational commitment can predict turnover intention. In the current study, once salary type did not fully predict organizational commitment, it would be rational that salary type could not predict turnover intention directly.

4.3. Limitations of current research and possible suggestions for future studies

This research contained some limitations which deserve comment.

First, social desirability was found to have significant effect on distributive justice measure (in Table 4), that is, more felt distributive justice was correlated to higher social desirability. It suggested that sampled China returnees overall tended to report higher levels of distributive justice than what they really felt about justice, and therefore the linkages between distributive justice and both salary type and choice of preferred referent, tested in the current research, may have been *exaggerated*. One possible reason is that they may be afraid of telling the truth as they still have some scruples about the confidentiality of information provided in the questionnaire. China returnees in this research may not want anyone (especially their employer) to know their real feelings of

injustice about the salary provided by the company, in order to avoid any potential trouble deriving from telling the truth.

On the other hand, the social desirability measure used in this research brought some concerns about its reliability, because many items (6 out of 10) were deleted from the original version of the Strahan-Gerbasi X1 Scale during the Exploratory Factor Analysis process. The original Marlowe-Crowne scale and its short forms which were developed from North America, both have been primarily used for studies undertaken in Western context. Thompson and Phua (2005) have suggested that the Strahan-Gerbasi X1 Scale may not be generalizable to the population from some collectivistic cultures. Thus, in terms of the China returnee populations, even though they are generally infused with Western culture, the usefulness of this short form of social desirability scale in the current research with returnee samples is open to question. A more reliable and generalizable social desirability scale used for Chinese contexts needs to be developed for further studies.

Secondly, the current sample of this research included 109 participants, which met the minimum of 100 participants in total and all of the participants were almost evenly distributed in my sample (i.e. each of the 6 cells nearly had an equal number of participants), but the smallest group only consisted of 16 participants (< 20). It would be desirable in future study of this kind to increase the n per cell. To have a larger sample size in a future study would also increase statistical power to detect effects, hence allowing meaningful tests to be made of the mediating influences, if any, of distributive justice on turnover intention.

Thirdly, measure issues could raise concerns about the validity of the findings. For the Distributive justice measure, items specific to *benefits* were not included. Recent studies on distributive justice conducted in joint venture settings in China (e.g. Zhou et al, 2010), have found foreign expatriates who receive greater benefit packages (e.g., health insurance, paid holidays and pension benefits) than the local workers, generally reported higher levels of work justice. Thus, how China returnees feel about their benefits may also impact the overall feelings of distributive justice. Items specific to benefits would be required in future research.

Last but not least, three major factor scores (distributive justice, organizational commitment and turnover intention) were relatively highly inter-correlated. Although the results of Harman's single-factor test suggests that common method variance was not a significant concern in the current study (since there was no general factor explaining a majority of the total variance), the 48.1% of the variance (very close to 50%) suggests some common method variance may still remain a possibility. It is possible that since no reversed item for those three major variables was used in the questionnaire, participants may just give higher ratings for all items through the whole questionnaire without carefully thinking about the real meanings of those items. As a result, the inter-correlations between distributive justice, organizational commitment and turnover intention may be inflated due to the action of common method variance. To get more accurate findings, it would be desirable to add more reversed items in future research.

In addition, there are at least two possible improvements for future studies. First, the model of this research (Figure 1) can be further developed. For example, organizational commitment would be treated as a factor that predicts turnover intention (e.g. Geurts et al, 1999), which allows to capture the real relationships among salary type, distributive justice and turnover intention. Secondly, more types of pay referent could be involved, not only limited to the 'internal' ones. For instance, a China returnee who is working in other similar foreign-invested firms in the same industry (i.e., external pay referent) could also be seen as a very meaningful referent by participants and they may have more influence on participants to think about the fairness of their recent salary. In a sense, participants may see themselves most similar to those external China returnees because both of them have the same identity and are in the same situation (i.e., returning home to work in foreign-invested firms located in China after sojourning overseas).

4.4. Practical implications

The current research provides some practical implications.

First of all, although the phenomenon which foreign-invested firms in China often offer two types of salary for their China returnee employees exists widely, few studies have explored 1) how those China returnees will feel about their salary working in China, and 2) how their employee attitudes are impacted by their feeling towards the salary they receive. The current research is among the first to discover the above

questions of this kind by developing a research model involving several major variables (see Figure 1), and it helps to give cause for concern about the issue of salary type for China returnees working in a foreign-invested firm in China.

Secondly, this research suggests that by using different preferred pay referents, China returnees' perception of distributive justice, regarding their salary, would differ and which further impact their organizational commitment and turnover intention. Hence, for returnees working in foreign-invested firms, offering an intermediate salary does not necessarily bring in positive outcomes. The salary advantages over local workers or the smaller salary gaps between expatriate and returnees (for those intermediately-paid returnees) in fact remain potentially problematic; because a certain number of intermediately-paid returnees may even see themselves as victims of unfair pay and become more frustrated and irksome about their intermediate salary. Thus, this research helps HR managements in foreign-invested firms to be aware of the above issue, and provides them a more comprehensive and accurate view about company's salary system in regard to returnees' pay.

The findings of this research may contribute to the HR management in foreign-invested firms, to help them attract and maintain valuable China returnees. For example, by knowing that offering intermediate salary cannot always bring positive results, the HR management could provide benefits (other than financial incentives) such as a fast track to senior management as motivators for all employees; or improving China returnees' positive work related attitudes by developing reasonable explanations/justifications for the company's remuneration policy.

4.5. Conclusions

The current study has explored that remuneration policy (local versus intermediate salary) of foreign-invested firms along with China returnee' choice of preferred pay referent have significant links to China returnees' perceptions of distributive justice, organizational commitment and turnover, and these are best predicted by both equity and relative deprivation theories. The importance of particular preferred pay referent studied in this research has suggested that the benefits of intermediate salary will be compromised if the preferred referent is an internationally-paid expatriate. The research has raised new questions around sample size, the reliability of social desirability measure, validity of distributive justice measure and the possible action of common method variance. With the constantly increasing number of China returnees returning home and working in foreign-invested firms in China, to help both sides of returnee employees and the firm, it is worthwhile for future research to explore China returnees' cognitive and behavioral reaction regarding the remuneration options of those firms by using a more comprehensively developed model.

Reference

- Adams, J. S. (1965). Equity in social exchange. *Advances in Experimental Social Psychology*, 62, 335–343.
- Adams, J.S., & Rosenbaum, W.B. (1962). The relationship of worker productivity to cognitive dissonance about wage inequities. *Journal of Applied Psychology*, 46, 161-164.
- Ambrose, D. L., & Kulik, C. T. (1988). Referent Sharing: Convergence within Workgroups of Perceptions of Equity and Referent Choice. *Human Relations*, 41 (9), 697-707.
- Baron, Reuben M. and David A. Kenny (1986), “Moderator - Mediator Variables Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations”. *Journal of Personality and Social Psychology*, 51 (6), 1173–82.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.
- Brislin, R. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1, 185–216.
- Bryant, F. B., & Yarnold, P. R. (1995). Principal-components analysis and exploratory and confirmatory factor analysis. In L. G. Grimm & P. R. Yarnold (Eds.), *Reading and understanding multivariate statistics* (pp. 99-136). Washington, DC: American Psychological Association.
- Bush, V. D., Rose, G. M., Gilbert, F., & Ingram, T. N. (2001). Managing culturally diverse buyer-seller relationships: The role of intercultural disposition and adaptive selling in developing intercultural communication competence. *Journal of the Academy of Marketing*, 29, 391-404.

- Carr, S. C., Hodgson, M. R., Vent, D. H., & Purcell, I. P. (2005). Pay diversity across work teams: Doubly de-motivating influences? *Journal of Managerial Psychology, 20*(5), 417–439.
- Carr, S. C., MacLachlan, M., & Chipande, R. (1998). Expatriate aid salaries in Malawi: A doubly de-motivating influence? *International Journal of Educational Development, 18*, 133-143.
- Carr, S., McWha, I., MacLachlan, M., Furnham, A. (2010). International – local remuneration differences across six countries: Do they undermine poverty reduction work? *International Journal of Psychology, 45*(5), 321-340.
- Chen, C. C., Choi, J., & Chi, S. C. (2002). Making justice sense of local-expatriate compensation disparity: Mitigation by local referents, ideological explanations, and interpersonal sensitivity in China-foreign joint ventures. *Academy of Management Journal, 45*, 807–817.
- Child, D. (1979). *The essentials of factor analysis*. London: Holt, Rinehart & Winston.
- Choi, J., & Chen, C. C. (2007). The relationships o distributive justice and compensation system fairness to employee attitudes in international joint ventures. *Journal of Organizational Behavior, 28*, 687-703.
- Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes, 86*, 278–321.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation, 10*(7), 1-9.
- Davis, J. A. (1959). A formal interpretation of the theory of relative deprivation. *Sociometry, 22*, 280-296.

- DeVellis, R. F. (2003). *Scale development: Theory and Applications*. Thousand Oaks, Calif: SAGE Publications.
- Faranda, W. T. (2001). A scale to measure the cognitive control form of perceived control: Construction and preliminary assessment. *Psychology and Marketing, 18*, 1259–1281.
- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Stanford: Stanford University Press.
- Field, A. (2005). *Discovering Statistics Using SPSS*, 2nd ed., Sage, London.
- Podsakoff, P.M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*(2), 531-544.
- Folger, R., & Konovsky, M. A. (1989). Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal, 32*, 115-130.
- Gardner, D. G., Van Dyne, L., Pierce, J. L. (2004). The effects of pay level on organization-based self-esteem and performance: A field study. *Journal of Occupational and Organizational Psychology, 77*, 307–332.
- Geurts, S. A., Schaufeli, W. B., & Rutte, C. G. (1999). Absenteeism, turnover intention and inequity in the employment relationship, Work & Stress. *An International Journal of Work, Health & Organizations, 13*(3), 253-267.
- Griffeth, R.W., Vecchio, R.P., & Logan, J.W. (1989). Equity theory and interpersonal attraction. *Journal of Applied Psychology, 74*, 394-401.
- Goodman, P. S. 1974. An examination of referents used in the evaluation of pay. *Organizational Behavior and Human Performance, 12*, 170-195.
- Gouldner, A. W. 1960. The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*, 161–177.

- Hackett, D. R., Bycio, P., & Hausdorf, P. (1994). Further assessment of Meyer and Allen's (1991) three-component model of organizational commitment. *Journal of Applied Psychology, 79*, 15-23.
- Holm, S. (1979). A simple sequentially rejective multiple test procedure. *Scandinavian Journal of Statistics, 6*, 65-70.
- Kulik, C. T., & Ambrose, M. L. 1992. Personal and situational determinants of referent choice. *Academy of Management Review, 17*, 212-237.
- Leung, K., Smith, P. B., Wang, Z. M., & Sun, H. F. (1996). Job satisfaction in joint venture hotels in China: An organizational justice analysis. *Journal of International Business Studies, 27*, 947-962.
- Leung, K., Wang, Z., & Smith, P. (2001). Job attitudes and organizational justice in joint venture hotels in China: the role of expatriate managers. *The international Journal of Human Resource Management, 12(6)*, 926-945.
- Leung, K., Zhu, Y., & Ge, C. (2009). Compensation disparity between locals and expatriates: Moderating the effects of perceived injustice in foreign multinationals in China. *Journal of World Business, 44(1)*, 85-93.
- Levine, J. M., & Moreland, R. L. (1987). Social comparison and outcome evaluation in group contexts (Eds.), *In Social Comparison, Social Justice, and Relative Deprivation: Theoretical, Empirical, and Policy Perspectives* (pp. 105-127). Hillsdale: Erlbaum.
- Lind, E. A., & Tyler, T. R. (1988). *The Social Psychology of Procedural Justice*. New York: Plenum Press.
- Lum, L., J. Kervin, K. Clark, F. Reid and W. Sirola (1998). 'Explaining Nursing Turnover Intent: Job Satisfaction, Pay Satisfaction, or Organizational Commitment?'. *Journal of Organizational Behaviour, 19*, 305-320.

- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83-104.
- MacKinnon, D. P., Warsi, G., & Dwyer, J. H. (1995). A simulation study of mediated effect measures. *Multivariate Behavioral Research*, 30, 41-62.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1, 61 – 89.
- Milkovich, G. M., & Newman, J. M. (2004). *Compensation (8th ed.)*. Burr Ridge, IL: Irwin McGraw-Hill.
- Mowday, R.T., Porter, L.W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. New York: Academic Press.
- NBSC, (2009). *2009 China Statistical Year book*, China Statistics Press.
- Niehoff, B. P., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal*, 36(3), 527-556.
- Oldham, G. R., Nottenburg, G., KASSNER, M. K., Ferris, G., Fedor, D., & Masters, M. (1982). The selection and consequences of job comparisons. *Organizational Behavior and Human Performance*, 29, 84-111.
- Returnees' Employment Report. (2011, March 7). *Sina Education*. Retrieved February 22, from <http://edu.sina.com.cn/j/2011-03-07/1003200199.shtml>.
- Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behaviour*, 15, 145-259.
- Rousseau, D. M. (1995). *Psychological Contracts in Organizations: Understanding Written and Unwritten Agreements*, Sage Publications, Thousand Oaks, CA.

- Rutte, C. G., & Messick, D. M. (1995). An integrated model of perceived unfairness in organizations. *Social Justice Research, 8*, 239-261.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Eds.), *Sociological Methodology 1982* (pp. 290-312). Washington DC: American Sociological Association.
- Stouffer, S. A., Suchman, E. A., DeVinney, L. C., Star, S. A., & Williams, R. M., Jr. (1949). *The American soldier: Adjustment during army life* (Vol. 1). Princeton, NJ: Princeton University Press.
- Strahan, R. & Gerbasi, K. C. (1972). Short, homogeneous versions of the Marlow–Crowne social desirability scale. *Journal of Clinical Psychology, 28*, 191–193.
- Syroit, J., Lodewijkx, H., Franssen, E., & Gerstel, I. (1993). Organizational commitment and satisfaction with work among transferred employees: An application of referent cognitions theory. *Social Justice Research, 6*, 219-234.
- Taylor, G.S. and Vest, M.J. (1992), “Pay comparisons and pay satisfaction among public sector employees”. *Public Personnel Management, 21*, 445-454.
- Thompson, B. (2004). *Exploratory and confirmatory factor analysis: understanding concepts and applications*. Washington, DC: American Psychological Association.
- Thompson, E. R., & Phua, T. T. (2005). Reliability among senior managers of the Marlowe-Crowne short-form Social Desirability Scale. *Journal of Business and Psychology, 19*(4), 541-555.
- Zhou, E.I., Lu, Z., Li, X., Li, T., Papola, T.S., Pais, J., & Sahu, P.P. (2010). Remuneration differences in the emerging economies of China and India. *International Journal of Psychology, 45*, 360–370.

Appendices

Appendix 1: Questionnaire

Please note: This online questionnaire is entirely anonymous. Participation in completing this online survey will take approximately 5-10 minutes.

Part One: General Background

You will be asked to answer some questions about your general background. These will help the researcher to understand the breadth and depth of experience of the sample in my research project.

1. Are you male or female?
 - Male
 - Female

2. How old are you?

3. What is your nationality?

4. What are the first three characters from the name of the organization you are currently working for? (E.g. Matsushita Electric Industrial →MAT)
** For statistical reasons, this question only helps the researcher to check that each participant in the study is from a different organization.*

5. How many employees in your organization?

6. What is your current job title?
.....

7. How many year(s) of experience do you have in your current job?
.....

8. What is your highest degree?
 - Bachelor's degree (including Bachelor's degrees with Honours)
 - Graduate certificates or Graduate diplomas
 - Master's degree (including Postgraduate certificates and Postgraduate diploma)
 - Doctorate (including Post doctorate)

9. In which country was your highest degree achieved?

.....

10. Do you have any full-time overseas working experience related to your current job?

- Yes
- No

If your answer is 'No', please go to question 18 and you don't need to answer question 11 - 17.

11. What was (were) your overseas job title(s)?

.....

12. How many years of experience did you have in your overseas job(s)?

.....

13. Please list the specific year(s) that you started your overseas job(s)

.....

14. Please list the specific year(s) that you finished your overseas job(s)

.....

15. And in which country (countries)?

.....

16. What was the amount of annual salary you received for your last overseas job, in the currency in which it was paid?

.....

17. Did you have any special benefits for your last overseas job?

- Yes Please list what they are?
- No

18. In your current job, what is the amount of annual salary you are receiving (in Yuan)?

.....

19. Do you have any special benefits for your current job?

- Yes Please list what they are?
- No

20. Please estimate the amount of annual salary a local Chinese worker is receiving (in Yuan)?

.....

** A local Chinese worker is someone in your position performing similar tasks within the same organization but having neither an overseas qualification nor any overseas work experience.*

21. Do they have any special benefits?
- Yes Please list what they are?
 - No
22. How often do you compare your salary against a local Chinese worker from your current organization?
- 1 - Never
 - 2 - Rarely
 - 3 - Sometimes
 - 4 - Often
 - 5 - Always
23. Please estimate the amount of annual salary a foreign expatriate is receiving (in Yuan)?
- * A foreign expatriate is someone in your position performing similar tasks and with similar years of work experience or qualification*
24. Do they have any special benefits?
- Yes Please list what they are?
 - No
25. How often do you compare your salary against a foreign expatriate from your current organization?
- 1 - Never
 - 2 - Rarely
 - 3 - Sometimes
 - 4 - Often
 - 5 - Always
26. Please estimate the amount of annual salary a returnee employee is receiving (in Yuan)?
- * A returnee employee is someone in your position performing similar tasks within the same organization, and having similar overseas qualification and/or a similar amount of overseas work experience*
27. Do they have any special benefits?
- Yes Please list what they are?
 - No
28. How often do you compare your salary against a returnee employee from your current organization?
- 1 - Never

- 2 - Rarely
- 3 - Sometimes
- 4 - Often
- 5 - Always

Part Two

In the second part of this survey, here are some questions asking how you feel about your *organization*, job and work in general. Please indicate your agreement or disagreement with each of the following questions using a scale of 1 (strong disagree) to 5 (strongly agree), with 3 as the midpoint (neither agree nor disagree).

29. I am willing to put in a great deal of effort beyond that normally expected in order to help this organizational be successful.

○ ——— ○ ——— ○ ——— ○ ——— ○
 1 2 3 4 5

30. I have never been annoyed when people at work expressed ideas very different from my own

○ ——— ○ ——— ○ ——— ○ ——— ○
 1 2 3 4 5

31. I talk up this organization to my friends as a great organization to work for

○ ——— ○ ——— ○ ——— ○ ——— ○
 1 2 3 4 5

32. At work, there have been occasions when I felt like smashing things

○ ——— ○ ——— ○ ——— ○ ——— ○
 1 2 3 4 5

33. I feel like leaving this organization

○ ——— ○ ——— ○ ——— ○ ——— ○
 1 2 3 4 5

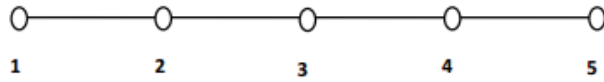
34. I feel that my work schedule is fair.

○ ——— ○ ——— ○ ——— ○ ——— ○
 1 2 3 4 5

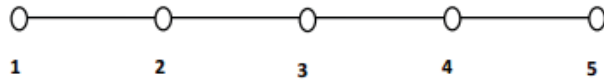
35. I think about leaving this organization

○ ——— ○ ——— ○ ——— ○ ——— ○
 1 2 3 4 5

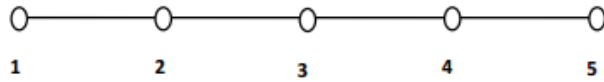
36. I have never deliberately said something at work that hurt someone's feelings



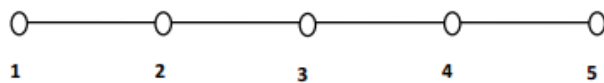
37. I find that my values and the organizations' values are very similar



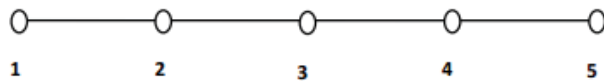
38. I think that my level of pay is fair.



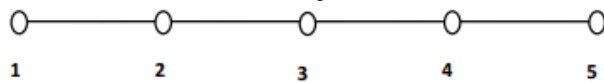
39. I always try to practice what I preach at work



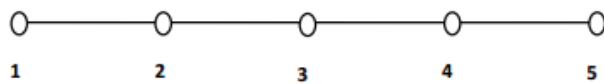
40. I would accept almost any types of job assignment in order to keep working for this organization



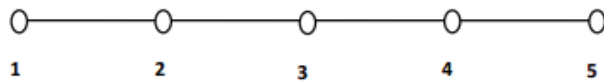
41. I wish I could leave this job



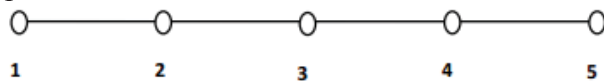
42. At times I have really insisted on having things my own way at work



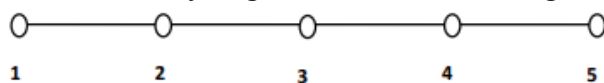
43. I consider my current workload to be quite fair



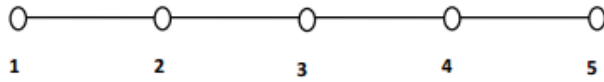
44. This organization really inspires the very best in me in the way of job performance



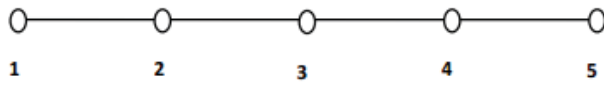
45. I sometimes try to get even rather than forgive and forget at work



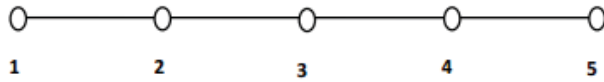
46. I feel that my job responsibilities are fair.



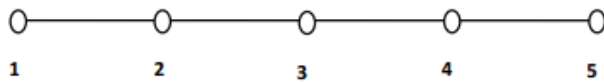
47. At work, I am always willing to admit it when I make a mistake



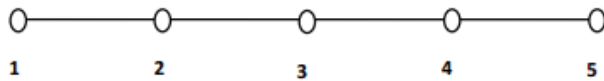
48. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined



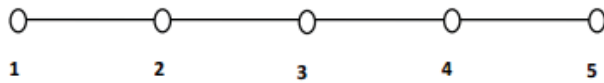
49. I wish I could leave this organization



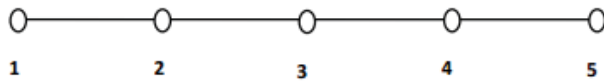
50. I never resent being asked to return a favor at work



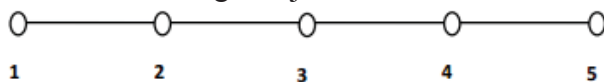
51. I really care about the fate of this organization



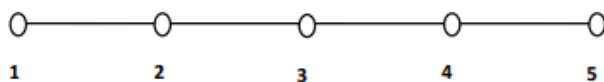
52. Overall, the rewards I receive here are quite fair



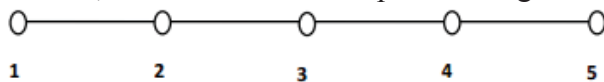
53. I feel like leaving this job



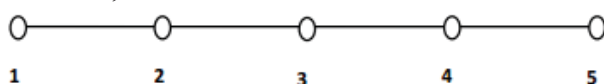
54. At work, I like to gossip at times



55. For me, this is the best of all possible organizations for which to work



56. At work, there have been occasions when I took advantage of someone



57. I think about leaving this job

— — — —

1 2 3 4 5

58. I am proud to tell others that I am part of this organization

— — — —

1 2 3 4 5

This is the end of online survey, to log off you can simply close your internet browser. I would also like to ask for your help recommending this online survey to other Chinese returnees you may know who also meet the criteria above but from *DIFFERENT* organizations.

Thank you very much for your participation and time!

Appendix 2: Advertisement for Research Participants

Dear Sir/Madam:

I am a Master student in Science at Massey University. I am writing to invite you to participate in an online questionnaire survey for my research thesis. The project I am undertaking is to explore how people who return to China from overseas feel about their salary systems at work. I would like to invite China returnees who are currently working in China to participate in this study. You can ONLY be in this study if you are a China returnee who also meet the following criteria: 1) “Highly skilled” (defined as Bachelors degree or above, and/or with significant experience in a knowledge profession), 2) working inside China and in a foreign invested firm, 3) self-initiated (i.e. not on expatriate assignments), and 4) have been working and living in China *no* more than 2 years since you returned. If you are interested in being participated in this project, please read the attached document – information sheet, it will take you 5 minutes to read. The questionnaire will only take you 10 minutes to complete. Your participation will be greatly appreciated.

Please note, this online survey is entirely anonymous and participation is completely voluntary. All data collected in this research will be stored confidentially. The data you provide will only be used for the specific research purposes of this study. You have the right to decline to answer any particular question and withdraw from this study at any time. Finally, I would like to ask for your help recommending this online survey to other Chinese returnees you may know who also meet the criteria above but from *DIFFERENT* organizations.

Yours sincerely

Ruijue WU

Appendix 3: Information sheet

Researcher: Rui Jue WU, School of Psychology, Massey University.

I am a Masters student from China enrolled in a Science degree at Massey University in New Zealand. As part of this degree I am undertaking a research project leading to a thesis.

The project I am undertaking is exploring how people who return to China from overseas feel about their company's remuneration system at work. I would like to invite China returnees who are currently working in China to participate in this study.

You can ONLY be in this study if you are a China returnee who meets the following criteria: 1) "Highly skilled" (defined as Bachelors degree or above, and/or with significant experience in a knowledge profession), 2) working inside China and in a foreign investment firm (including wholly foreign-owned enterprise sino-foreign equity joint venture and sino-foreign cooperative joint venture, 3) self-initiated (i.e. not on expatriate assignments), and 4) have been working and living in China *no* more than 2 years since you returned. No physical/mental discomfort or risk of harm is anticipated for your participation in this study. If you however feel discomfort in answering certain questions, you are free to skip these questions or participating in that aspect of the study without consequences of any kind.

If you volunteer to participate in this study, you will be, firstly, asked to answer some questions about your general background, such as information about you and your colleagues' annual pay, your choice of comparative pay reference group and other demographic questions. Secondly, you will be asked to indicate your agreement with a number of statements regarding your work-related attitudes. Participation in this study will take approximately 15 minutes. After you complete this questionnaire, I would like

to ask for your help recommending this online survey to other Chinese returnees you may know who also meet the criteria above but from DIFFERENT organizations.

This online survey is entirely anonymous. All data collected in this research will be stored confidentially. The data you provide will only be used for the specific research purposes of this study. You are under no obligation to accept this invitation. If you decide to participate, completion of the online questionnaire implies consent. You have the right to decline to answer any particular question and withdraw from this study at any time. If you wish to withdraw, simply close your internet browser, the materials that you have completed to that point will be automatically deleted. You have the right to ask for a summary of this research in which you are participating.

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application MUHECN 11/066. If you have any concerns about the research, you are free to contact me (r.j.wu2012@gmail.com) or my supervisor, Dr Stuart C Carr, at the School of Psychology at Massey University (S.C.Carr@massey.ac.nz, ph:+64 9 414-0800, Ext 41228).

If you are interested in participating in the survey, please click on the button below.

Thank you for your time.

Sincerely

RuiJue WU