

# The Study of Fighter Pilots Working Fatigue and Willingness for Career Change in Relay to Role Pressure and Emotion ...

許朝銘、廖彩伶

E-mail: 9608157@mail.dyu.edu.tw

## ABSTRACT

Air power stands for military capability of a country. Moreover, fighter pilots play a key role in air power. Following the new paradigm of society and the Armed Forces Refining Program, the Air Force is facing an extreme challenge, i.e., lots of pilots retired and most of the others are planning to retire and work for civil airline company. The Air Force is losing his pilots. The main objective of this study is to find out the pilots working fatigue and willingness for career change in relay to role pressure and emotion. According to 376 questionnaire surveys, emotional is related to pilots role pressure and job pressure. Working fatigue is related to role pressure and emotional. Once the pilot working fatigue, they will think of career change. The assumption and conclusion in this study show that the trend of retirement of second generation fighter pilots is still upwards. The Air Force should not only study and find out the reason why fighter pilots resign, but make policy to alleviate the present situation and to insure air power.

Keywords : role pressure ; emotional ; working fatigue ; willingness for career change

## Table of Contents

內容目錄 中文摘要	iii	英文摘要	iii
iv 誌謝辭		v 內容目錄	
v 表目錄		vii 圖目錄	
ix 第一章 緒論	1	第一節 研究背景與動機	1
1 第二節 研究目的與步驟流程	2	第三節 研究範圍設定	1
4 第二章 文獻探討	5	第一節 角色壓力	1
5 第二節 工作壓力	7	第三節 情緒耗竭	1
13 第四節 工作倦怠	18	第五節 離職意願	1
19 第六節 飛行員	20	第三章 研究方法	
22 第一節 研究架構	22	第二節 研究推論與假設	
22 第三節 變數之操作性定義與衡量	25	第四節 研究設計	
31 第五節 資料分析方法	32	研究結果	
34 第一節 敘述性分析	34	第二節 相關性分析	
38 第三節 迴歸分析	38	第四節 各變項之變異數分析	
43 第五章 結論與建議		51 第一節 研究結果	
51 第二節 理論意涵		52 第三節 實務意涵	
53 第四節 研究限制與建議		54 參考文獻	
56 附錄 本研究之問卷		70	

## REFERENCES

- 一、中文部份 Liddell Hart B. H. (1999), 第二次世界大戰戰史(鈕先鍾譯), 麥田出版社, (原文於1948年出版)。Winston S. Churchill (2002), 第二次世界大戰回憶錄(吳萬沈, 韋凡譯), 天下文化出版社, (原文於1948年出版)。方代青(2000), 工作壓力、工作滿足、組織承諾與離職傾向間關聯性之探論-以台南市稅捐稽徵處為例, 國立成功大學企業管理研究所碩士論文。王尚剛(1994), 壓力源、壓力知覺與工作壓力關係之研究, 國立中山大學企業管理研究所碩士論文。王芳琳, 張其吉, 趙國璇, 王德漢, 徐叢庚, 及康華(1991), 飛行員卡氏16種人格因素的系統聚類分析, 中華航空醫學雜誌, (3), 157-161。王國揚(2002), 角色衝突、工作壓力與離職傾向關係之探討 以財政部台灣省中區國稅局為例, 國立中山大學人力資源管理研究所碩士論文。王蕙玲(1996), 塔台人員的資源管理, 航空醫學會會刊, (16), 155。王麗淳(1998), 角色壓力影響情緒耗竭之過程探討, 國立中正大學企業管理研究所碩士論文。田定忠(2000), 飛行員慰留措施—專職飛行制度研究, 國防譯粹, (185), 227。危芷芬, 陳瑞雲(1993), 從心理測驗談飛航管制人員的甄選, 航空醫學會會刊, (9), 54。朱雲志(2000), 航空業務, 台北:楊智出版社。行政院勞工委員會勞工安全衛生研究所(1996), 勞工安全衛生研究報告 高工作壓力勞工

篩檢之研究，行政院勞工委員會勞工安全衛生研究所。何邦立(1993)，飛航管制員健康狀況的評估與建議，航空醫學會會刊，(9)，123。吳秉恩(1993)，組織行為學，台北：華泰出版社。吳惠民(2004)，二十一世紀航太武力，國防部空軍總司令部。李文進，陳欣進(1999)，空軍官校初階飛訓生人格特質與飛訓成效關係之研究，應用心理研究，(12)，221-224。李文進，簡伯丞(2000)，空軍飛行員與地勤人員之生活適應狀況調查研究，空軍學術月刊，(485)，46-48。李嘉聖，陳益世(1999)，高科技產業特性、工作壓力、工作滿意暨離職傾向之相關性研究-以新竹科學園區高科技廠商研發技術人員為例，人力資源學報，(11)，102。林世昌(1994)，我國會計角色壓力、組織承諾與離職意願關係之研究，國立政治大學會計研究所碩士論文。林鈺琴(1999)，組織承諾、工作滿足與組織公民行為之研究：各種不同理論模式之比較，中山管理評論，7(4)，58。林耀盛，蔡英媛(1995)，飛行員工作分析問卷結果報告，空軍官校心研組技術報告，11-12。邱國銘(2001)，銀行員的壓力源、工作倦怠與工作態度之研究，中山大學人資研究所碩士論文。姜占魁(1994)，組織行為與行政管理，台北：協銘出版社。翁志成，簡俊成(2003)，角色壓力、情緒耗竭、憂鬱傾向與工作態度關係之研究-以主計人員為例，中華心理衛生學刊。翁志成，簡俊成(2003)，情緒壓力影響員工工作態度之研究，大同管理學報，4(1)，28。中華民國國防部(2005)，國防報告書。崔來意(2000)，高科技公司女性專業人員工作-家庭衝突、工作倦怠及離職意願關係之研究，國立中山大學人力資源管理研究所碩士論文。張建好(1991)，飛行員地勤人員及航空醫官的性格研究，航空醫學會刊，5，85-94。張常妙(2000)，工作壓力、工作情緒、因應策略與心智模式相關性之研究-以台南市稅捐稽徵處為例，國立中正大學企業管理研究所碩士論文。梁議德(2003)，民用機場飛航管制員的角色壓力與工作態度之關係-從角色理論的觀點，世新大學觀光學系碩士論文。許翡珊(2001)，知識類型、角色衝突與個人創新性，銘傳大學管理科學研究所碩士論文。許寶源(1996)，國民小學教師角色衝突與學校認同關係之研究，台灣師範大學教育研究所碩士論文。陳志昌(1999)，人口統計變項、工作壓力與業務績效之相關研究-以壽險業業務員為例，東海大學企業管理研究所碩士論文。陳忠貴(1998)，軍隊壓力研究文獻探討及其運用，空軍學術月刊，(85)，89。陳彩(1994)，工作生活品質、工作滿足與離職意願關聯性研究，國立交通大學管理科學研究所碩士論文。曾文美(2001)，工作壓力與工作績效之相關性研究，中華大學工業工程與管理研究所碩士論文。程千芳(2002)，飛行員刻板印象之初探，發表於第九屆三軍官校基礎學術研討會。程千芳，何邦立(1992)，飛航管制員的甄選與心理測驗，航太醫學會會刊，(7)，23-28。黃英忠(1997)，人力資源管理，三民書局。黃琪智(2001)，邊界角色跨越行為、角色壓力與行為反應之研究-以多層行銷人員為例，實踐大學企業管理研究所碩士論文。楊政樺(2001)，航空地勤服務管理，台北：楊智出版社。楊寶旺，馬景賢(2001)，110位改變人類生活的先驅者，明統圖書公司。滿莉芳(2002)，情緒勞務工作者情緒勞務負荷與工作結果之研究-以情緒智力與工作特性為干擾，靜宜大學企業管理研究所碩士論文。趙淑美(1994)，初級飛行訓練生之人格特質研究，空軍官校心研組技術報告，45。蔡秋月，王蕙玲，何邦立(1997)，心理性向作技能測試在飛航管制員甄選上的效度研究，航空醫學會會刊，(17)，76。鄭文俊(1995)，工作壓力、工作滿足、組織承諾與離職傾向關係之研究-以台北市民營公車駕駛員為例，文化大學勞工研究所碩士論文。

二、英文部份

Anonymous. (1994). Helping to eliminate stress in the workplace. *Business & Health*, 12(4), 28-31. Atkinson, J. W., & Feather N. T. (1988). A theory of achievement motivation, New-York: John Wiley. Babin, B. J., & Boles, J. S. (1998, April). Employee behavior in a service environment; A model and test of potential differences between men and women. *Journal of Marketing*, 62, 77-91. Balch, J. F., & Balch, P. A. (2000). Prescription for nutritional healing. garden city park. New York: Avery Publishing Group. Banton, M. P. (1965). Roles: An introduction to the study of social realtions. London: Tavistock. Battle plan training modules.

[on line] Available: <http://www.armymentalhealth.com/Pages/battleplan.htm> Beehr, T. A., & J. E. Newmen, (1978). Job stress, employee health, and organizational effectiveness; A fact analysis, model, and literature review. *Personnal Psychology*, 31, 665-699. Bettencourt, L. A., Meuter, M. L., & Gwinner, K. P. (2001). A comparison of attitude, personality and knowledge predictors of service-oriented citizenship behaviors. *Journal of Applied Psychology*, 86(1), 66-81. Boles, J. S., Johnston, M. K. & Hair, J. F. (1997). Role stress, work-family conflict and emotional exhaustion: inter-relationships and effects on some work-related consequences. *Journal of Marketing*, 58, April, 70-80. Brown, S. P., & Peterson, R. A. (1994). The effect on sales performance and job satisfaction. *Journal of Marketing*, 58, 70-80. Caplan, R. D., & Jones, K. W. (1975). Effects of working load role ambiguity and type a personality on anxiety, depression, and heart rate. *Journal of Applied Psychology*, 6, 713-719. Clopton, S. W., (1984). Seller and buying firm factors affecting industrial buyers' negotiation behavior and outcomes. *Journal of Marketing Research*, 21, 39-53. Cooper, C. L., Cooper, R. D., & Eaker, L. H. (1988). The cooper occupational stress ratings. *Living with Stress*; Penguin Books, 81-83. Cordes, C. L. & Dougherty, T. W. (1993). A review and integration research on job burnout. *Academy of Management Review*, 18(4), 612-656. Coverman, S. (1989). Role overload, role conflict, and stress: addressing consequences of multiple role demands. *Social Forces*, 67(4), 965. Federal Aviation Administration (1989). Cockpit resource management training, (advisory Circular 120-51). Washington DC: Author. In Hartel, C. E., & Hartel, G. F. (1995). Controller resource management-what can we learn from aircrew? Flin, R. (2002). Selecting the right stuff: Personality and High-reliability occupations. In B. W. Roberts & R. Hogan (Eds.) *Personality Psychology in the Workplace*, 253-276. Washington, DC: American Psychological Association. Geurts, Sabine, Schaufeli, Wilmar, & Jonge, Jan De, (1998). Burnout and intention to leave among mental health-care professionals: A social psychological approach. *Journal of Social and Clinical Psychology*, Fall, 341-362. Greenberg, J. S. (1990). Comprehensive stress management. Dubuque, IA: William C. Brown Publishers. 23-26. Hartmann, L. C., & Bambacas, M. (2000). Organizational commitment: A multi method scale analysis and test of effects. *International Journal of Organizational Analysis*, 8, Issue 1, 89-108. Headquarters Department of the Army. (1994). Leader's Manual for Combat Stress Control Booklet 1, Extracted from FM 22-51, Washington, D. C., Septemeber 29. [on line] Available: <http://www.vnh.org/FM22-51/booklet1.html> Hellriegel, D., Slocum, J. W. Jr. & Woodman, R. W. (1992). *Organizational behavior*, St. Paul MN: West Publishing Company. Hunter D. R., & Burke, E. F. (1995). *Handbook of Pilot Selection*. England: Avebury Aviation. Jackson, S. E., & R. S. Schuler, (1985). A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work setting. *Organizational Behavior and Human Decision Processes*, 36, 16-78. Jamal, M. (1984). Job stress and job performance controversy: An empirical

assessment. *Organizational Behavior and Human Performance*, 33, 1-21. Jex, S. M. (1998). *Stress and Job Performance, Theory, research, and implications for managerial practice* London: SAGE publications Inc. Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizations stress, Study in role conflict and ambiguity*, New York: Wiley. Kanter, R. M. (1968). *Commitment and Social Organization: a Study of Commitment Mechanisms in Utopian Communities*. *American Sociological Review*, 33, 499-517. Katkin, E. S. (1993). Psychophysiological assessment of stress. In L. Goldberger & S. Breznitz (Eds.), *Handbook of Stress*. New York: The Free Press. 65-68. Katz D., & Kahn R. (1978). *The Social Psychology of Organizations*, New York, John Willy. King, L. A., & King, D. W. (1990). Role conflict and Role Ambiguity: a Critical Assessment of construct Validity. *Psychological Bulletin*, 107(1), 48-64. Kompier M., & Cooper C. (1999). *Preventing Stress, Improving Productivity*, New York: Routledge. Lee, R. T., & Ashfort, B. E. (1996). A meta-analytic examination of correlates of the three dimensions of job burnout. *Thourmal of Applied Pasychology*, 2(81), 123-133. Manning, G., Curtis, K., & McMillen, S. (1999). *Stress: Living and working in a changing world*. Duluth, Minnesota: Whole Person Associates. 56. Marsh, R. M., & Mannari H. (1977). Organizational commitment and turnover: A prediction study. *Administration Sciences*, 57-74. Martin, T. N., & Schermerhorn, J. R. (1983). Work and nomwork influence on health, A research agenda using inability to leave as a critical Variable. *Academy of Management Review*, 650-659. Maslach, C., & Jackson, S. E. (1981). The Measurement of Experienced Burnou. *Journal of Occupational Behavior*, 2, 99-113. Meyer, J. P. Allen, N. J., & Smith, C. A., (1991). Commitment to organizational and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78, 538-551. Michaels, R. E., Day, R. L. & Joachimsthaler, E. A., (1987, April). Role stress among industrial buyers: An integrative model. *Journal of Marketing*, 51, 28-45. Parasuraman, S., & Alutto, J. A., (1984). Sources of outcomes of stress in organization settomgs: Toward the development of a structural model. *Academy of Management Journal*, 27(2), 330-350. Peterson, D. (1990). *Managing Employee Stress*, New York: Aloray. Pettigrew, A. M. (1988). *Competitiveness and the Management Process*. Basil Blackwell. Pines, A., & Aronson E. (1981). *Burnout: from tedium to personal growth*. New York: Free press. Porter, L.W., & Smith, F. J. (1970). The etiology of organization commitment. Unpublished Paper, University of California, Irvine. Price, J. L. & Mueller, C. W. (1986). *Absenteeism and turnover of hospital employees*. Greenwich, CT: JAI Press. Reichers, A. E.(1985). A review and reconceptualization of organizational commitment. *Academy of Management Review*. 10(3), 465-476. Rizzo, J. R., House, R. J. & Lirtzman, S. I. (1970). Role Conflict and Ambiguity in Complex Organizatrative Science Quarterly. 15: 150-163. Robbins, S. P. (1989). *Organizational Behavior*. NJ, Engliwood Cliffs. Salancik, G. S. (1977). Commitment and the control of organizational behavior and belief. In B. M. Staw and G. R. Salancik(Eds.), *New Direction in Organizational Behavior* Chicago: St. Clair Press. Sanders, J. C., Fulks, D. L., & Knoblett, J. K. (1995). Stress and stress management in public accounting. *The CPA Journal*, 46-49. Sarbin, D. K., (1974). Toward a theory of the role accumulation. *American Sociological Review*, 39, 567-568. Seyle, H. (1974). *Stress and disease*. New York: J. B. Lippincott. 45. Seyle, H. (1993). History of the stress concept. In L. Goldberger & S. Breznitz (Eds.), *Handbook of Stress*. New York: The Free Press. 46-60. Singh, J., (1993). Boundary role ambiguity: Facts, determinants, & impact. *Journal of Marketing*, 57, 11-31. Sohi, R.S., (1996). The effects of environmental dynamism and heterogeneity on sales people ' s role perceptions, performance and job satisfaction. *European Journal of Marketing*, 30(7), 49-67. Spector, P. E. (1997). *Job Satisfaction*. Thousand Oaks, CA: SAGE Publications,Inc. Stead, G. (1995). Personality on the flight deck. In N. McDonald, N. Johnson, & R. Fuller (Eds.), *Applications of psychology to the aviation system*. 309-314. Aldershot: Ashgate. Turner, J. H. (1991). *The Structure of Sociological Theory*. Wadsworth, California. Wharton, A. S. (1993). The affect consequences of service work, work and occupations, 20(2), 205-232. Williams, E. S., Konrad, T. R., Scheckler, W. E., Pathman, D. E., Linzer, M., McMurray, J. E., Gerrity, M. & Schwartz, M. (2001). Understanding physicians ' intention to withdraw from practice: the role of job satisfaction, job stress, mental and physical health. *Health Care Management Review*, 26(1), 7-19.